

154 FERC ¶ 63,024
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

ENE (Environment Northeast), The Greater
Boston Real Estate Board, National Consumer
Law Center, and NEPOOL Industrial Customer
Coalition

Docket No. EL13-33-002

v.

Bangor Hydro-Electric Co.; Central Maine
Power Co.; New England Power Co.; New
Hampshire Transmission LLC; NSTAR Electric
Co.; Northeast Utilities Service Co.; The United
Illuminating Co.; Unitil Energy Systems, Inc.;
Fitchburg Gas and Electric Light Co.; and
Vermont Transco, LLC

Attorney General of the Commonwealth of
Massachusetts; Connecticut Public Utilities
Regulatory Authority; Massachusetts Municipal
Wholesale Electric Company; New Hampshire
Electric Cooperative, Inc.; Massachusetts
Department of Public Utilities; New Hampshire
Public Utilities Commission; George Jepsen,
Attorney General of the State of Connecticut;
Connecticut Office of Consumer Counsel; Maine
Office of the Public Advocate; New Hampshire
Office of the Consumer Advocate; Rhode Island
Division of Public Utilities Carriers; Vermont
Department of Public Service; Associated
Industries of Massachusetts; The Energy
Consortium; Power Options, Inc.; Western
Massachusetts Industrial Group; Environment
Northeast; National Consumer Law Center;
Greater Boston Real Estate Board; and Industrial
Energy Consumer Group

Docket No. EL14-86-000
(consolidated)

v.

Bangor Hydro-Electric Company; Central Maine
Power Company; New England Power Company
d/b/a National Grid; New Hampshire

Docket Nos. EL13-33-002 and EL14-86-000

2

Transmission LLC d/b/a NextEra; Northeast Utilities Service Company, on behalf of its operating company affiliates: The Connecticut Light and Power Company, Western Massachusetts Electric Company, and Public Service Company of New Hampshire; NSTAR Electric Company; The United Illuminating Company; Unitil Energy Systems, Inc.; Fitchburg Gas and Electric Light Company; and Vermont Transco, LLC

INITIAL DECISION

(Issued March 22, 2016)

APPEARANCES

David B. Raskin, Esq., Gary A. Morgans, Esq., Heather M. Horne, Esq., Phyllis E. Lemell, Esq., and Mary E. Grover, Esq. on behalf of Eversource Energy.

Catherine P. McCarthy, Esq., and R. Scott Mahoney, Esq., on behalf of Central Maine Power Company.

Sean A. Atkins, Esq., and Daniel Galaburda, Esq. on behalf of National Grid.

Stephen M. Spina, Esq., Joseph W. Lowell, Esq., and Linda L. Randall, Esq., on behalf of The United Illuminating Company.

Gary Epler, Esq., on behalf of Unitil Energy System, Inc. and Fitchburg Gas and Electric Light Company.

Karen K. O'Neill, Esq., on behalf of Vermont Transco LLC.

Karen M. Holyoke, Esq., on behalf of Emera Maine (f/k/a Bangor Hydro-Electric Company).

Gunnar Birgisson, Esq., on behalf of New Hampshire Transmission LLC.

Donald W. Boecke, Esq., on behalf of the Attorney General of the Commonwealth of Massachusetts.

Docket Nos. EL13-33-002 and EL14-86-000

Clare E. Kindall, Esq., Robert Luysterborghs, Esq., Scott H. Strauss, Esq., David E. Pomper, Esq., and Latif M. Nurani, Esq., on behalf of the Connecticut Public Utilities Regulatory Authority.

Cecile Fraser, Esq., on behalf of the Massachusetts Department of Public Utilities.

Joseph A. Rosenthal, Esq., on behalf of the Connecticut Office of Consumer Counsel.

Susan W. Chamberlin Esq., on behalf of the New Hampshire Office of the Consumer Advocate.

Robert A. Rio, Esq., on behalf of the Associated Industries of Massachusetts.

Agnes Gormley, Esq., on behalf of the Maine Office of the Public Advocate.

Jeffrey A. Schwarz, Esq., on behalf of the Massachusetts Municipal Wholesale Electric Company and New Hampshire Electric Cooperative, Inc.

Robert Ruddock, Esq., on behalf of the Western Massachusetts Industrial Group, The Energy Consortium and the Greater Boston Real Estate Board.

Sheila Grace, Esq., on behalf of the Vermont Public Service Department.

Leo J. Wold, Esq., on behalf of the Rhode Island Division of Public Utilities and Carriers.

Donald J. Sipe, Esq. on behalf of the Industrial Energy Consumer Group.

John S. Wright, Esq., and Michael C. Wertheimer, Esq., on behalf of George Jepsen, Esq., the Attorney General of the State of Connecticut.

Daniel L. Sosland, Esq., on behalf of the Acadia Center (formerly ENE or Environment Northeast).

F. Anne Ross, on behalf of the New Hampshire Public Utilities Commission.

Cynthia Arcate, Esq., on behalf of Power Options, Inc.

Charles Harak, Esq., on behalf of the National Consumer Law Center.

John P. Coyle, Esq. and Ashley M. Bond, Esq., on behalf of Belmont Municipal Light Department; Braintree Electric Light Department; Concord Municipal Light Plant; Georgetown Municipal Light Department; Groveland Electric Light Department; Hingham Municipal Lighting Plant; Littleton Electric Light & Water Department; Merrimac Municipal Light Department; Middleton Electric Light Department; Reading

Docket Nos. EL13-33-002 and EL14-86-000

4

Municipal Light Department; Rowley Municipal Lighting Plant; Taunton Municipal Lighting Plant; and Wellesley Municipal Light Plant.

Hollis J. Alpert, Esq., Debora E. Lyon, Esq., and Andrew O. Schulte, Esq., on behalf of the Federal Energy Regulatory Commission Trial Staff.

STEVEN L. STERNER, Presiding Administrative Law Judge

Table of Abbreviations and Terminology¹

Abbreviation	Definition
Base ROE	ROE prior to application of ROE-increasing incentives
bp	Basis point, i.e., 1/100 of a percentage point (e.g., 10.57%-9.0%=157 bp)
CAPM	Capital Asset Pricing Model
CAPs	Complainant-Aligned Parties
Ceiling ROE	Maximum ROE chargeable for each rate base component
Complaint II Period	The period subject to rate change, including refunds for the period December 26, 2012-March 26, 2014, pursuant to the outcome of Docket No. EL13-33
Complaint III Period	The period subject to rate change, including refunds for the period July 30, 2014-October 30, 2015, and prospectively, pursuant to the outcome of Docket No. EL14-86
CRSP	Center for Research in Security Prices
DCF	Discounted Cash Flow
DJUA	Dow Jones Utility Average
Duke	Duke Energy, Inc.
ECAPM	“Empirical” Capital Asset Pricing Model
EMCOS	Eastern Massachusetts Consumer Owned Systems
EL11-66	Docket No. EL11-66
EPS	Earnings Per Share
EPSG	Earnings Per Share Growth
Fed	The Federal Reserve
FPA	Federal Power Act
GDP	Gross Domestic Product
IBES	Institutional Brokers Estimate System
ICOE	Implied Cost of Equity
ID	Initial Decision
ITC	ITC Holdings, Inc.
KCC	Kansas Corporation Commission
Massachusetts DPU	Massachusetts Department of Public Utilities
M&A	Merger & Acquisition
MISO	Midcontinent Independent System Operator
Mississippi	Mississippi Public Service Commission

¹ This table is only meant as a guide. Its contents have not been given any weight or used in any manner in the deliberative process of the Initial Decision for this case. Its contents do not address or replace the substance of any portion of the Initial Decision.

PSC	
Moody's	Moody's Investors Service
NETOs	New England Transmission Owners
NextEra	NextEra Energy, Inc.
Otter Tail	Otter Tail Power Company
Participants	CAPs, EMCOS, and Staff are jointly referred to as Participants
QE3	Quantitative Easing 3
ROE	Return on Equity
RRA	Regulatory Research Associates
RTO	Regional Transmission Organization
SPS	Southwestern Public Service Company
S&P	Standard & Poor's
TECO	TECO Energy, Inc.
Top Quarter	The point halfway between the midpoint and the top of the zone of reasonableness
Tr.	Transcript
TROD	Thomson Reuters on Demand
UIL	UIL Holdings, Inc.

I. PROCEDURAL HISTORY	13
II. SUMMARIZED TESTIMONY	19
1. CAPs Direct Testimony	19
2. EMCOS Direct Testimony	40
3. NETOs Answering Testimony	50
3.1 Dr. Avera	50
3.2 Ms. Lapson	70
4. Staff Direct and Answering Testimony	85
5. NETOs Cross-Answering Testimony	112
5.1 Dr. Avera	113
5.2 Ms. Lapson	135
6. CAPs Rebuttal Testimony	147
7. EMCOS Rebuttal Testimony	197
8. Updated Testimony	203
8.1 Updated testimony and exhibits of Professor Woolridge	203
8.2 Updated testimony of Dr. Wilson on behalf of EMCOS	206
8.3 Prepared Supplemental Testimony of Dr. Avera	207
8.4 Prepared supplemental testimony and exhibits of Ms. Lapson	208
8.5 Statement of updated ROE analysis of Ms. Joe	209
9. Supplemental Testimony	218
9.1 Dr. Avera's January 15, 2016 supplemental DCF testimony	218
9.2 Staff supplemental DCF testimony	221
III. THE ISSUES	223
1. Threshold Issues Applying to Both Complaint Periods	223
1.1 What is the applicable burden of proof?	224
A. Participants	224
B. NETOs	225
C. Findings and Conclusions	225

(i) The burden of showing that current ROE is unjust and unreasonable lies with complainants. The burden of establishing a new just and reasonable ROE then shifts to the Commission.	225
(ii) Placement of the base ROE above the midpoint and burden for showing “anomalous market conditions”	226
1.2 For each of the periods at issue in this proceeding, is either the existing base or the existing maximum ROE unjust or unreasonable?	228
A. Participants and NETOs	228
B. Findings and Conclusions	229
1.3 If the NETOs’ existing base ROE is within the zone of reasonableness, can it be found to be unjust or unreasonable?	229
A. Participants and NETOs	229
B. Findings and Conclusions	230
2. ROE for the Refund Period in Docket No. EL13-33 (December 27, 2012 – March 26, 2014)	232
2.1 DCF Methodology	232
2.1.1 How should the DCF methodology be applied for that period?	232
2.1.1.1 Selecting Proxies	232
A. CAPs	232
B. EMCOS	233
C. Staff	234
D. NETOs	235
E. Findings and Conclusions	236
2.1.1.2 Yahoo v. TROD, stale data issue	237
A. Participants	237
B. NETOs	239
C. Findings and Conclusions	240
2.1.1.3 Dividend Yields and Complaint II study period	242
A. Participants	242
B. NETOs	243
C. Findings and Conclusions	245
2.1.1.4 M&A and ITC	247
A. Participants	247
B. NETOs	251
C. Findings and Conclusions	252
2.1.1.5 Value Line	257
A. CAPs and Staff	257

B. NETOs	258
C. Findings and Conclusions	259
2.1.2 What array and range of DCF results should be considered in reviewing the ROE for that period?	260
A. CAPs	260
B. EMCOS	261
C. Staff	261
D. NETOs	262
E. Findings and Conclusions	262
2.2 Other Information Related to that Period	265
2.2.1 Should financial models other than the DCF methodology be used in evaluating the NETOs' ROE; if so, what models should be used and how should they be applied?	265
2.2.1.1 Other Financial Models Should Be Considered	265
A. NETOs	265
(i) NETOs argue that the anomalous market conditions that existed during the Complaint I period in Opinion No. 531 continued unabated during the Complaint II and Complaint III periods	265
(ii) NETOs argue that historically low bond yields and interest rates, resulting in significant part from the Federal Reserve's unprecedented intervention into markets, evince that capital market conditions remain anomalous	266
(iii) NETOs argue that Participants' witnesses do not support a conclusion that capital market conditions have changed since Opinion No. 531 or that current conditions are now "normal"	268
(iv) NETOs argue that the base ROE in this case must be set at a level that accounts for low interest rates' direct effect on the DCF analysis and the Commission's policy of promoting investment in electric transmission	270
(v) Alternate Methodologies	271
B. Participants	272
(i) Participants argue that the anomalous market conditions that existed during the Complaint I period do not exist in the Complaint II or Complaint III periods	272
(ii) NETOs argue that historically low bond yields and interest rates, resulting in significant part from the Federal Reserve's unprecedented intervention into markets, evince that capital market conditions remain anomalous	274
(iii) The "New Normal" and Volatility in Markets	277

(iv) CAPs and Staff argue that the NETOs have not shown that the midpoint of a properly conducted DCF analysis for the Complaint II period fails to meet the requirements of Hope and Bluefield	281
E. Findings and Conclusions	286
(i) The facts of this case demonstrate that application of the alternative methodologies is appropriate	286
(ii) The parties advocating the placement of the base ROE above the midpoint bear the burden of establishing the existence of anomalous capital market conditions.	295
(iii) The evidence presented by Participants does not support the conclusion that capital market conditions have changed since Opinion No. 531 or that current conditions are now normal	297
2.2.1.2 CAPM	298
A. NETOs	298
B. Participants	299
C. Findings and Conclusions	303
2.2.1.3. Electric Utility Risk Premium Approach	305
A. NETOs	305
B. Participants	307
C. Findings and Conclusions	308
2.2.1.4 Expected Earnings Analysis	309
A. NETOs	309
B. Participants	310
C. Findings and Conclusions	312
2.2.1.5 State Determined ROEs	314
A. NETOs	314
B. Participants	317
C. Findings and Conclusions	323
2.2.2 What additional capital market or other information, if any, should be considered related to the ROE?	326
2.2.2.1 EMCOS' Relative Risk Argument	326
A. EMCOS	326
B. NETOs	327
C. Findings and Conclusions	328
2.3 Ultimate Issues	331
2.3.1 What is the proper placement of the base ROE in the zone of reasonableness?	331
A. CAPs	331

B. EMCOS	332
C. Staff	333
D. NETOs	333
E. Findings and Conclusions	337
2.3.2 What limit, if any, should apply to the incentive ROEs?	338
A. CAPs	338
B. EMCOS	339
C. Staff	339
D. NETOs	340
E. Findings and Conclusions	340
3. ROE for Refund Period in Docket No. EL14-86 (July 31, 2014 – October 30, 2015) and Prospectively from the date FERC Sets a New ROE in Docket No. EL14-86	341
3.1 DCF Methodology	341
3.1.1 How should the DCF methodology be applied for that period?	341
3.1.1.1 Miscellaneous Issues	341
A. Participants	341
B. NETOs	343
C. Findings and Conclusions	344
3.1.1.2 ITC	345
A. Participants	345
B. NETOs	346
C. Findings and Conclusions	346
3.1.1.3 TECO	346
A. Participants	346
B. NETOs	348
C. Findings and Conclusions	353
3.1.1 What array and range of DCF results should be considered in reviewing the ROE for that period?	359
A. Participants	359
B. NETOs	360
C. Findings and Conclusions	360
3.2 Other Information Related to that Period	362
A. Participants	362
B. NETOs	363
C. Findings and Conclusions	365
3.3 Ultimate Issues	365

3.3.1. What is the proper placement of the base ROE in the zone of reasonableness?	365
A. Participants	365
B. NETOs	366
C. Findings and Conclusions	368
3.3.2. What limit, if any, should apply to the incentive ROEs?	368
A. Participants	368
B. NETOs	369
C. Findings and Conclusions	370

IV. SUMMARY FINDINGS AND CONCLUSIONS	370
--------------------------------------	-----

V. ORDER	370
----------	-----

I. Procedural History

1. On September 30, 2011, pursuant to section 206 of the Federal Power Act (FPA),² a group of complainants consisting mostly of state representatives (Docket No. EL11-66 Complainants) filed a complaint in Docket No. EL11-66-000 (Complaint I), alleging that New England Transmission Owners' (NETOs) 11.14 percent base ROE was unjust and unreasonable. They submitted a discounted cash flow (DCF) analysis in support of their assertion that the base ROE should not exceed 9.2 percent.³ On May 3, 2012, the Commission set Complaint I for hearing and settlement judge procedures.⁴

2. On December 27, 2012, pursuant to section 206 of the Federal Power Act, a group of complainants (Docket No. EL13-33 Complainants),⁵ filed a complaint (Complaint II) alleging that NETOS' 11.14 percent base ROE was unjust and unreasonable and that Docket No. EL13-33 Complainants' DCF analysis indicated that NETOs' base ROE should not exceed 8.7 percent.⁶ Docket No. EL13-33 Complainants asserted that their complaint is not duplicative of Complaint I, contending that their DCF analysis reflected more current proxy group information and a more up-to-date zone of reasonableness than Complaint I.⁷ The DCF analyses in both Complaint I and Complaint II were based on the one-step DCF methodology that the Commission used in public utility cases at the time the complaints were filed.⁸

3. On January 8, 2013, the Massachusetts Attorney General Martha Coakley filed a Motion to Intervene. On January 10, 2013, the following each filed a Motion to Intervene: the Connecticut Office of Consumer Counsel; George Jepsen, Attorney General for the State of Connecticut; and NEPOOL Participants Committee. The hearing on Complaint I ended on May 10, 2013. On August 6, 2013, the Presiding Judge certified an initial decision to the Commission.⁹

² 16 U.S.C. § 824e (2006).

³ See Martha Coakley, Mass. Attorney General,., Complaint, Docket No. EL11-66-000 (filed Sept. 30, 2011).

⁴ Martha Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co., 139 FERC ¶ 61,090 (2012).

⁵ Docket No. EL13-33 Complainants are Environment Northeast, Greater Boston Real Estate Board, National Consumer Law Center, and New England Power Pool (NEPOOL) Industrial Customer Coalition.

⁶ See ENE (Environment Northeast), *et al.* Dec. 27, 2012 Complaint at 2.

⁷ *Id.* at 3-5.

⁸ See Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co., Opinion No. 531, 147 FERC ¶ 61,234, at P 24, *order on paper hearing*, Opinion No. 531-A, 149 FERC ¶ 61,032 (2014), *reh'g denied*, Opinion No. 531-B, 150 FERC ¶ 61, 165 (2015).

⁹ See Coakley, Mass. Attorney Gen. v. Bangor Hydro-Elec. Co., 144 FERC ¶ 63,012 (2013).

4. On January 11, 2013, Associated Industries of Massachusetts and The Energy Consortium filed Motions to Intervene. On January 14, 2013, the Eastern Massachusetts Consumer Owned Systems (EMCOS) filed a Joint Motion to Intervene, the Vermont Department of Public Service filed a Motion to Intervene, and the Maine Public Advocate Office filed a Motion to Intervene. On January 15, 2013, the Maine Public Utilities Commission filed a Notice of Intervention.

5. On January 16, 2013, NETOs filed an Answer of Respondent to Complaint Regarding Level of Base Return on Equity. That same day, the Massachusetts Municipal Wholesale Electric Company and New Hampshire Electric Cooperative, Inc. filed a Motion to Intervene and Comments and the Connecticut Public Utilities Regulatory Authority filed a Notice of Intervention and Comments. On January 18, 2013, the New Hampshire Public Utilities Commission filed a Motion to Intervene Out-of-Time. On January 31, 2013, Complainants and Identified Intervenors filed an Answer to Respondent NETOs' Motion to Dismiss.

6. On June 19, 2014, the Commission established hearing and settlement judge procedures and a December 27, 2012 refund effective date.¹⁰ Contemporaneously, the Commission issued an order on initial decision in Docket No. EL11-66-000 (Opinion No. 531), in which the Commission changed its policy on the DCF methodology to be used in public utility ROE cases, by adopting the two-step DCF methodology that the Commission has used in natural gas pipeline and oil pipeline cases for many years.¹¹

7. On July 1, 2014, the Chief Judge issued an Order Appointing Settlement Judge and Scheduling Settlement Conference. On July 8, 2014, the settlement judge issued an Order Rescheduling Settlement Conference for July 24, 2014. On July 15, 2014 the NEPOOL Industrial Customer Coalition filed Notice of Withdrawal as Complainant. On July 24, 2014, the settlement judge issued an Order Scheduling Settlement Conference for September 5, 2014. Also on this date, the settlement judge issued a Report to the Commission and to the Chief Judge recommending that settlement procedures be continued.

8. On July 31, 2014, Docket No. EL14-86 Complainants¹² filed a complaint (Complaint III) alleging that NETOs' 11.14 percent base ROE was unjust and unreasonable and that Docket No. EL14-86 Complainants' DCF analysis indicates that NETOs' base ROE should not exceed 8.84 percent.¹³ Docket No. EL14-86 Complainants

¹⁰ *Environment Northeast (ENE) v. Bangor Hydro-Electric Co.*, 147 FERC ¶ 61,235 (2014).

¹¹ See Opinion No. 531, 147 FERC ¶ 61,234 at P 13.

¹² Docket No. EL14-86 Complainants consist of the Docket No. EL13-33 Complainants and the complainants that filed Complaint I, with the exception of NEPOOL Industrial Customer Coalition.

¹³ Attorney Gen. of the Commonwealth of Mass., *et al.* July 31, 2014 Complaint at 20.

asserted that their complaint is not duplicative of Complaint I and Complaint II, and contended that their DCF analysis reflected more current financial information than Complaint I and Complaint II.¹⁴ The DCF analysis in Complaint III was based on the two-step DCF methodology the Commission adopted in Opinion No. 531.¹⁵

9. On August 4, 2014, NETOs filed a motion for a 20 day extension of time. On August 12, 2014, the Commission granted the motion and extended the deadline for responding to the August 1, 2014 Complaint to and including September 10, 2014. On August 20, 2014, the Commission issued an Order Granting Rehearing. The Commission held that, in the absence of Commission action within 30 days from the date the rehearing request was filed, the request for rehearing (and any timely requests for rehearing filed subsequently)¹⁶ would be deemed denied.¹⁷

10. On August 21, 2014, the Maine Public Utilities Commission filed a Notice of Intervention. On August 22, 2014, the settlement judge issued an Order Rescheduling Settlement Conference for October 9, 2014. On September 10, 2014, NETOs filed an Answer to the Attorney General to the Commonwealth of Massachusetts' Complaint. Also on that day: the Maine Public Utilities Commission filed Supporting Comments, New England Power Pool Participants Committee filed a Motion to Intervene, EMCOS filed a Motion to Intervene, and the American Public Power Association filed a Motion to Intervene.

11. On September 11, 2014, NETOs filed a Motion to Admit Evidence and for Summary Disposition, or Alternative Request for Consolidation. On September 19, 2014, the Chief Judge issued an Order Continuing Settlement Judge Procedures. The Chief Judge issued a Report on September 22, 2014. On September 25, 2014, Complainants and Intervenors filed an Answer to Respondent's Motion for Summary Disposition or Consolidation. On September 26, 2014, EMCOS filed a Motion to Intervene Out-of-Time and an Answer. That same day, Commission Trial Staff (Staff) filed an Answer. On October 6, 2014, the Chief Judge issued an Order cancelling the settlement conference previously scheduled to convene on October 9, 2014.

12. On October 14, 2014 the settlement judge issued an Order scheduling a settlement conference for October 16, 2014. On October 16, 2014, the settlement judge rescheduled the settlement conference for October 23, 2014. On October 21, 2014, the settlement judge issued a Report indicating that the parties were at an impasse and recommending a termination to settlement proceedings. On October 22, 2014, the

¹⁴ *Id.* at 24.

¹⁵ *Id.* at 25.

¹⁶ *See San Diego Gas & Elec. Co. v. Sellers of Energy & Ancillary Servs. Into Mkts. Operated by Cal. Indep. Sys. Operator & Cal. Power Exch.*, 95 FERC ¶ 61,173 (2001) (clarifying that a single tolling order applies to all rehearing requests that were timely filed).

¹⁷ 18 C.F.R. § 385.713 (2010).

settlement judge issued an Order cancelling the previously scheduled settlement conference.

13. On October 24, 2014, the Chief Judge issued an Order terminating Settlement Judge Procedures, designating the undersigned to preside over the hearing and establishing an Initial Decision Due Date.

14. On October 28, 2014, the undersigned issued an Order scheduling a prehearing conference for November 6, 2014. On October 31, 2014, the undersigned granted EMCOS Group II's motion for leave to intervene out of time. On November 6, 2014, the undersigned issued an Order Establishing Procedural Schedule and Rules of Procedure for Hearings.

15. On November 24, 2014, the Commission issued a hearing order (Complaint III Hearing Order) setting Complaint III for hearing, consolidating that proceeding with the Complaint II proceeding, and establishing a refund effective date for the Complaint III proceeding of July 31, 2014.¹⁸ In the Complaint III Hearing Order, and with regard to the 15-month refund period associated with Complaint II and the 15-month refund period associated with Complaint III, the Commission explained that due to the establishment of two refund periods in the consolidated proceeding it is appropriate for the parties to litigate a separate ROE for each refund period.¹⁹ The Commission explained that for the refund period in the Complaint II proceeding (i.e., December 27, 2012 through March 26, 2014²⁰) "the ROE for that particular 15-month refund period should be based on the most recent financial data available during that period, i.e., the last six months of that period," and for the refund period in the Complaint III proceeding (i.e., July 31, 2014 through October 30, 2015) and for the prospective period, "the ROE should be based on the most recent financial data in the record."²¹

16. On December 4, 2014, the undersigned issued an Order establishing a procedural schedule for the hearing. The participants filed the preliminary Joint Statement of Issues on December 9, 2014. On December 24, 2014, NETOs filed a Request for Rehearing of the Complaint III Hearing Order. On December 30, 2014, EMCOS filed testimony.

17. On January 23, 2015, the Commission issued an Order Granting Rehearing. The Commission held that, in the absence of Commission action within 30 days from the date

¹⁸ Complaint III Hearing Order, 149 FERC ¶ 61,156.

¹⁹ *Id.* at P 27.

²⁰ The Commission clarified in its May 14, 2015 Order Denying Rehearing that the refund periods associated with Complaints II and III end on March 26, 2014, and October 30, 2015, respectively—not March 27, 2014, and October 31, 2015, as stated in the Complaint III Hearing Order.

²¹ Complaint III Hearing Order at P 27.

the rehearing request was filed, the request for rehearing (and any timely requests for rehearing filed subsequently)²² would be deemed denied.²³

18. On January 30, 2015, NETOs filed an unopposed motion for waiver of Rule 11 of the Rules of Procedure for Hearing and on February 2, 2015, NETOs filed testimony. Also on February 2, 2015, the undersigned issued an Order Granting Motion to Waive Rule 11 of the Rules of Procedure for Hearings. On February 5, 2015, the undersigned issued an Order setting the data update cutoff date for May 26, 2015.

19. On February 26, 2015, the undersigned issued an Order to Show Cause and Notice of Oral Argument as to why the testimony contained in Exhibit Nos. NET-1300 through NET-1327 should not be stricken, in whole or in part, or why other remedial measures should not be taken. In response, on March 4, 2015, NETOs filed a Motion to substitute joint answering testimony with single witness testimony. On March 6, 2015, the undersigned issued an Order Rescheduling Oral Argument on the matter.

20. On March 11, 2015, Staff filed an unopposed motion to revise the procedural schedule. On March 12, 2015, the Chief Judge issued an Order modifying the initial decision deadline and waiving the period for answers for Staff's unopposed motion. On March 13, 2015, NETOs filed a motion for waiver of the period for answers for NETOs March 4, 2015 motion.

21. On March 16, 2015, the undersigned issued an Order granting Staff's motion to revise the procedural schedule and modifying data update cutoff date. On March 17, 2015, the undersigned issued an Order granting NETOs' motion to substitute joint answering testimony with single witness testimony and finding the show cause order moot. Also on March 17, 2015, the undersigned issued an Order cancelling the oral arguments scheduled for March 24.

22. On March 23, 2015, Staff filed testimony. On April 21, 2015, NETOs filed testimony. On May 14, 2015, the Commission issued an Order denying NETOs' requests for rehearing. On May 18, 2015, EMCOS and CAPs filed testimony. On May 22, 2015, participants filed a Final Joint Statement of Issues. On May 29, 2015, participants each filed testimony. On June 15, 2015, participants filed Prehearing Briefs. On June 24, 2015, NETOs filed an unopposed motion for adoption of a protective order. The undersigned issued an Order adopting the protective order on June 25, 2015. The hearing was held June 25, 2015 through July 2, 2015.

23. At the hearing, CAPs sponsored Exhibit Nos. CAP-1 through CAP-136, CAP-138 through CAP-148, and CAP-150 through CAP-154, all of which were admitted into evidence except CAP-147, which was rejected. NETOs sponsored Exhibit Nos. NET-

²² See *San Diego Gas & Elec. Co.*, 95 FERC ¶ 61,173 (2001) (clarifying that a single tolling order applies to all rehearing requests that were timely filed).

²³ 18 C.F.R. § 385.713 (2010).

1300 through NET-1327, NET-1400 through NET-1404, NET-1500 through NET-1504, NET-1600 through NET-1603, NET-1700 through NET-1712, NET-1800 through NET-1802, and NET-1900 through NET-1937, all of which were admitted into evidence. EMCOS sponsored Exhibit Nos. EMC-4 through EMC-7 and EMC-11 through EMC-31, all of which were admitted into evidence. Staff sponsored Exhibit Nos. S-1 through Exhibit S-30, all of which were admitted into evidence.

24. On July 23, 2015, NETOs filed a motion to lodge. On July 29, 2015, participants filed the Joint Procedural History and each participant filed initial briefs. On August 7, 2015, CAPs, EMCOS and Staff (Participants) filed Answers opposing NETOs' Motion to Lodge. The undersigned issued an Order Denying Motion to Lodge on August 13, 2015. On August 26, 2015, each participant filed reply briefs.

25. On December 18, 2015, the undersigned issued an Order to Reopen Record and Notice Establishing Prehearing Conference (Order to Reopen Record). The undersigned explained that there was insufficient evidence in the record from which he could establish a zone of reasonableness and set a return on equity (ROE) because none of the parties performed the discounted cash flow (DCF) methodology in accordance with the Commission's preferred approach.²⁴ As such, the undersigned required NETOs and Staff to rerun calculations based on data already in the record as of the close of hearing on July 2, 2015.²⁵ The undersigned required NETOs to rerun their calculations because they had come closest to conforming to the Commission's DCF methodology. The undersigned required Staff to rerun their calculations as a check on NETOs' calculations. The undersigned invited CAPs and EMCOS to address the calculations submitted by NETOs and Staff by challenge or supplementation.²⁶ Also on December 18, 2015, the Acting Chief Judge issued an Order Establishing Date for Supplemental Reply Briefs and Extending Initial Decision Deadline. The initial decision deadline was extended to March 31, 2016.

26. On January 5, 2016, a prehearing conference was held. On January 15, 2016, NETOs and Staff each filed supplemental testimony. On January 20, 2016, CAPs filed supplemental testimony and exhibits (January 20 Filings). On January 27, 2016, NETOs filed a Motion to Strike CAPs' January 20 Filings. On January 28, 2016, CAPs filed a Response in Opposition to Motion to Strike. A limited hearing was held on February 1, 2016. At the limited hearing, the undersigned rejected the bulk of CAPs' supplemental testimony (Ex. CAP-55) and all of CAPs' supplemental exhibits (Exs. CAP-56, CAP-57, and CAP-58). The undersigned admitted into evidence a portion of Ex. CAP-55, Exs. NET-2000 through NET-2006, and Exs. S-31 through S-33.

27. On February 8, 2016, NETOs, Staff and CAPs filed official copies of exhibits. NETOs sponsored Exs. NET-2000 through NET-2006. Staff sponsored Exs. S-31

²⁴ Order to Reopen Record at P 4.

²⁵ *Id.* P 14.

²⁶ *Id.* P 15.

through S-33. CAPs sponsored Ex. CAP-55. Also on February 8, 2016, parties and participants filed Joint Transcript Corrections to the February 1, 2016 Hearing. On February 9, 2016, the undersigned issued an Order Adopting Joint Transcript Corrections.

II. Summarized Testimony

1. CAPs Direct Testimony

28. The Complainant-Aligned Parties (CAPs) sponsored the testimony of Dr. J. Randall Woolridge. Dr. Woolridge has previously prepared testimony on the appropriate base-level return on equity (ROE) applicable to the New England Transmission Owners (NETOs).²⁷ His educational background, research, and related business experience is provided in Exhibit CAP-2. In his direct testimony, Dr. Woolridge discussed the regulatory and economic context in which the current cost of equity invested in NETOs' transmission rate bases must be determined and the cost of equity studies he performed.²⁸ Dr. Woolridge then provided his recommendations and justifications for placing the NETOs' Base ROE within the range produced by his DCF studies.²⁹

(a) Introduction and Summary

29. Dr. Woolridge explained that the allowed Base ROE is currently 10.57%, to which various incentive ROE adders are applied, with the maximum ROE capped at 11.74%.³⁰ He believes those ROEs significantly exceed what would be reasonable for the periods at issue in this case because he considers the anomalous capital market conditions cited in Opinion No. 531, to justify selecting a base ROE three-quarters of the way up the range of DCF ICOEs, to be a thing of the past.³¹ Various measures of central tendency that he calculated for the DCF ICOES in the current Docket Nos. EL14-86 and EL11-33 indicate that equity cost rates are below 9.0%.³²

30. For the Complaint II Period (December 27, 2012 – March 26, 2014), Dr. Woolridge's DCF model has 31 risk-band proxies with 24 ICOEs are retained. These

²⁷ Ex. CAP-1 at 1.

²⁸ *Id.* at 2.

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.* at 3.

³² *Id.*

proxies range from 7.02% to 10.64%.³³ The mean and median of the DCF ICOEs are 8.68% and 8.75%.³⁴ The midpoint of the range is 8.83% and the top quarter is 9.73%.³⁵

31. For the Complaint III Period (July 31, 2014 forward), Dr. Woolridge's DCF model has 22 risk-band proxies with all ICOEs are retained. They range from 6.19% to 11.53%.³⁶ The mean and median of the DCF ICOEs are 8.77% and 8.55%.³⁷ The midpoint of the range is 8.86% and the top quarter of the range is 10.19%.³⁸

32. For the Complaint II Period, Dr. Woolridge recommends a base ROE of 8.75% and a maximum ROE of 11.50%, both based on the median of his two-stage DCF analysis. For the Complaint III Period, Dr. Woolridge recommends a base ROE of 8.55% based on the median of his two-step DCF analysis, and a maximum ROE of 11.30% on the same basis.³⁹

(b) Context for Determination of the Cost of Common Equity Capital

33. Dr. Woolridge explained that the general standards for a reasonable allowed return on equity were set forth by the Supreme Court in the *Bluefield*⁴⁰ and *Hope*⁴¹ decisions. Under these standards, a reasonable ROE should aim to meet, but not exceed, the ROE level needed to (1) maintain the financial integrity of the utility, (2) enable the company to attract new capital, and (3) provide a return to common equity that is commensurate with returns on investments in other utilities of corresponding risk.⁴² Specifically, the *Hope* decision indicates that the just and reasonable ROE should be "sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capita."⁴³ In addition, *Bluefield* states that "[t]he return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties."⁴⁴

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* at 4.

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679 (1923).

⁴¹ *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

⁴² Ex. CAP-1 at 5.

⁴³ *Id.* (citing *Hope*, 320 U.S. at 603).

⁴⁴ *Id.* (citing *Bluefield*, 262 U.S. at 693).

34. Dr. Woolridge testified that the expected or required rate of return on common stock is a function of market-wide as well as company specific factors.⁴⁵ The most important market factor is the time value of money as indicated by the level of interest rates in the economy.⁴⁶ The perceived risk of a firm is the predominant factor that influences investor return requirements on a company-specific basis.⁴⁷ A firm's investment risk is often separated into business and financial risk, where business risk encompasses all factors that affect a firm's operating revenues and expenses and financial risk results from incurring fixed obligations in the form of debt in financing its assets.⁴⁸

35. Dr. Woolridge explained that public utilities are exposed to a lesser degree of business risk than other, non-regulated businesses.⁴⁹ The relatively low level of business risk allows public utilities to meet much of their capital requirements through borrowing in the financial markets, thereby incurring greater than average financial risk.⁵⁰ Dr. Woolridge provided an assessment of investment risk for 97 industries as measured by beta and showed that the cost of equity for utilities is among the lowest of all industries in the U.S.⁵¹

36. Dr. Woolridge testified that while the costs of debt and preferred stock are normally based on historical book values and can be determined with a great degree of accuracy, the cost of common equity capital cannot be determined precisely and must instead be estimated from market data and informed judgment.⁵² This return to the stockholder should be commensurate with returns on investments in other enterprises having comparable risks.⁵³ According to valuation principles, the present value of an asset equals the discounted value of its expected future cash flows.⁵⁴ Investors discount these expected cash flows at their required rate of return that reflects the time value of money and the perceived riskiness of the expected future cash flows.⁵⁵ As such, the cost of common equity is the rate at which investors discount expected cash flows associated with common stock ownership.⁵⁶

37. Dr. Woolridge explained that the long-term trend in the global economy shows slowed growth in annual economic production and income, while stored wealth that is

⁴⁵ *Id.*

⁴⁶ *Id.* at 5-6.

⁴⁷ *Id.* at 6.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*; Ex. CAP-3.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.* at 6-7.

⁵⁶ *Id.* at 7.

available to fund investments has continued to rise.⁵⁷ He stated that the result of the large supply of capital available for investment and relatively scarce demand for that capital is a long-term trend towards a lower cost of equity.⁵⁸

(c) Cost of Equity Studies

(i) Two-Stage DCF Analysis

1. DCF Model Overview

38. Dr. Woolridge relied primarily on the DCF model to estimate the cost of common equity capital and used a CAPM study as a supplemental check on his results.⁵⁹

39. Dr. Woolridge explained that, according to the theory behind the traditional DCF model, the current stock price is equal to the discounted value of all future dividends that investors expect to receive from investment in the firm.⁶⁰ As such, stockholders' returns ultimately result from current as well as future dividends.⁶¹ As owners of a corporation, common stockholders are entitled to a *pro rata* share of the firm's earnings.⁶² The DCF model presumes that earnings that are not paid out in the form of dividends are reinvested in the firm so as to provide for future growth in earnings and dividends.⁶³ The rate at which investors discount future dividends, which reflects the timing and riskiness of the expected cash flows, is interpreted as the market's expected or required return on the common stock.⁶⁴ Therefore, this discount rate represents the cost of common equity.⁶⁵ Dr. Woolridge testified that the DCF model is consistent with valuation techniques employed by investment firms and that virtually all investment firms use some form of the DCF model as a valuation technique.⁶⁶

40. Dr. Woolridge testified that Opinion No. 531 adopted an alternative version of the DCF model which uses two measures of projected growth: (1) the projected EPS growth for the companies in the proxy group as provided by Wall Street analysts and compiled by the IBES, and (2) a long-term projected GDP growth rate.⁶⁷ The Commission explained in Opinion No. 531 that because each utility's long-term growth is bounded by the growth of the U.S. economy as a whole, it is reasonable to assume that each proxy's

⁵⁷ *Id.* at 9.

⁵⁸ *Id.* at 10.

⁵⁹ *Id.* at 11.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.* at 12.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.* at 13.

growth rate will eventually converge toward the long-term growth rate of the U.S. economy.⁶⁸

2. Proxy Group Selection

41. Dr. Woolridge testified that he performed DCF analyses for two different six-month periods, each time using the Commission's two-stage DCF approach and using, respectively, the most recent study periods available for the Complaint II and Complaint III periods.⁶⁹ He explained that the proxy group for a DCF study should be representative of the utility or utilities whose returns are being determined, should be sufficiently large to yield reliable results, and should exclude proxies that are either unrepresentative or unreliable.⁷⁰ Accordingly, for a company to be included in the proxy group, the proxy must hold the following conditions throughout the six-month study period:⁷¹

1. Be a publicly-traded entity listed as belonging to the Electric Utility sector (for the Central, East, or West U.S. regions) by *Value Line Investment Survey*;
2. Have an investment grade corporate credit and bond rating that falls within the comparable risk band for both S&P and Moody's issuer credit ratings;
3. Have a steady dividend payment history, with no dividend cut announced or implemented during the study period;
4. Not be involved in major merger, disposition, or acquisition activity in the six month study period;
5. Be the subject of a current, and not illogically-derived, consensus IBES projection of long-term earnings per share growth; and
6. Yield an ICOE that is not discarded as failing tests of economic logic.

42. Dr. Woolridge testified that the NETOs' S&P ratings range from A- on the high end to BBB on the low end.⁷² According to the Commission's credit rating screen or "comparable risk band" approach, reference companies may be included with ratings that are one "notch" higher or lower than the corporate ratings of the utility at issue, within the investment grade ratings scale.⁷³ Therefore, the proxy group companies may have S&P corporate credit ratings ranging from BBB- to A.⁷⁴ The Moody's issuer credit

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.* at 14.

⁷¹ *Id.* at 15.

⁷² *Id.* at 16 (citing Ex. CAP-5 at 2).

⁷³ *Id.* (citing *Tallgrass Transmission, LLC*, 125 FERC ¶ 61,248 at P 77 (2008)).

⁷⁴ *Id.*

ratings range from A2 to Baa1.⁷⁵ Applying the one “notch” higher or lower criteria yields a Moody’s issuer credit ratings ranging from A1 to Baa2.⁷⁶ The proxy group that passes the comparable risk band test consists of twenty-nine electric utility companies.⁷⁷

43. Dr. Woolridge explained that when firms are engaged in significant mergers, dispositions, and/or acquisitions, financial market data associated with their shares are likely to yield aberrant ICOEs if used as DCF inputs.⁷⁸ Dr. Woolridge noted that corporate transactions vary widely and may arise at various times in relation to the six-month study period, which makes it difficult to state a simple test for identifying the transactions that are so significant that they should disqualify an otherwise usable proxy.⁷⁹ Thus, this criterion requires judgment, including consideration of the number of other available proxies.⁸⁰

44. Dr. Woolridge testified that the requirement that the IBES EPSG represent a consensus is intended to exclude projections known to consist of only one analyst firm’s estimate, rather than an average of multiple firms’ estimates.⁸¹ He explained that Reuters is the only available source of published IBES estimates and Reuters’ criteria for including estimates in its published averages indicate that when Reuters has multiple estimates for one company, it applies (or intends to apply) some requirements for consistency across those estimates. However, when Reuters has only one estimate for a particular company, it applies no comparable test for consistency with the estimates it publishes for other companies.⁸² Dr. Woolridge explained that the criteria that the EPSG not be illogically derived and that the resulting ICOE be economically logical can involve proxy-specific judgment.⁸³ These criteria should include a requirement that both the proxy’s overall EPSG as averaged by Reuters, and the individual analyst contributions to that average, be economically plausible as first-stage growth rates.⁸⁴ As a first-cut way to quantify a ceiling for this aspect of these criteria, Dr. Woolridge would apply (to the extent he has available the relevant data) a conservatively high ceiling of 16.75% because for many years the Commission discarded as economically illogical constant growth (single-stage) EPSGs that equaled or exceeded 13.3%.⁸⁵ To conservatively account for the substantial financial market changes that have occurred since the 13.3% test was established a decade ago, Dr. Woolridge multiplied 13.3% by the ratio of the Base ROEs

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.* at 17.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

set in the Opinion No. 489 proceeding and in Opinion No. 531.⁸⁶ By that trending calculation, $13.3\% * 11.14\% / 10.57\%$ equals 12.62% .⁸⁷ In the Opinion No. 531 two-stage DCF model, and in conjunction with a second-stage growth rate of 4.37% , a first-stage growth rate of 16.75% or more would yield a composite growth rate exceeding 12.62% .⁸⁸

3. Dividend Yields

45. Dr. Woolridge testified that, for the Complaint II Period, he compared the weighted average of the S&P and Moody's credit ratings for the NETOs and for the 26 companies that passed screens 1 through 4.⁸⁹ He performed this comparison by multiplying the ordinal scores of the various credit ratings by the number of companies within each rating category, thus obtaining weighted average ratings for the NETOs and the proxy companies.⁹⁰ Dr. Woolridge's weighted average of the S&P and Moody's credit ratings for the NETOs are 2.44 and 2.38 and for proxy group companies are 3.08 and 2.73.⁹¹ The weighted average of the credit ratings for the NETOs is smaller than (i.e., better than) the proxy group companies, which indicate that the NETOs are a little less risky than the proxy companies that are used to compute the DCF ICOEs.⁹² Dr. Woolridge repeated this comparison for the Complaint III Period, using all 22 proxies.⁹³ The weighted average of the S&P and Moody's credit ratings for the NETOs is 2.44 and 2.38 and for the proxy group companies is 2.73 and 2.68.⁹⁴ As in the Complaint II period comparison, the weighted average of the credit ratings for the NETOs is below those for the proxy group companies for both S&P and Moody's ratings, again indicating that the NETOs are a little less risky than the DCF proxy group companies.⁹⁵

46. Dr. Woolridge explained that the Commission derives a single, average dividend yield based on the indicated annual dividend and the average of the monthly high and low stock prices over a six-month period.⁹⁶ Accordingly, for each DCF study, he started with a past study period, for which he obtained actual stock prices and actual dividend levels from Yahoo finance.⁹⁷ Dr. Woolridge used a study period of the six most recent calendar months, so as to use dividend information that balanced being recent with being

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.* at 18.

⁹⁰ *Id.* (This analysis is presented in Ex. CAP-5 at 7).

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.* (citing *Portland Natural Gas Transmission Sys.*, Opinion No. 510, 134 FERC ¶ 61,129, at PP 232-34 (2011)).

⁹⁷ *Id.* at 19.

reliable.⁹⁸ For each month, he divided the contemporaneous annual dividend level by the average of the high and low stock price for the month, which yielded six past dividend yields.⁹⁹ He then averaged those six past dividend yields with each other to obtain an average past dividend yield for that stock.¹⁰⁰ Dr. Woolridge then adjusted the past dividend yields to reflect the fact that dividends are paid quarterly rather than continuously, using the standard adjustment of multiplying $1+(g/2)$.¹⁰¹ The “g” he used for this purpose was the same “g” that the Commission used for this purpose in Opinion Nos. 531 and 531-A.¹⁰² That is, he used the composite “g” found by taking the weighted average of the first-stage and second-stage growth rates, with the first stage weighted twice as heavily.¹⁰³

47. Dr. Woolridge testified that Opinion No. 531 provides a clear recipe for the dividend yield calculation by stating that “for the dividend yield component of the DCF model, the Commission derives a single, average dividend yield based on the indicated dividend and the average of the monthly high and low stock prices over a six month period.”¹⁰⁴ He testified that the Commission accepted DCF analyses that use the consensus long-term earnings per share growth (EPSG) projections compiled by Thomson Reuters in its IBES database and that Opinion No. 531 relied on EPSG projections published by Yahoo Finance.¹⁰⁵ Dr. Woolridge clarified that Opinion No. 531 did not specify that Yahoo Finance was the only appropriate source of EPSG projections, but instead reaffirmed that there may be more than one source of growth estimates.¹⁰⁶ He testified that Opinion No. 531 stated that the first-stage EPSG is to be based on the five-year projections reported by IBES *or a comparable source*.¹⁰⁷

4. First Stage Growth Rate

48. Dr. Woolridge stated that the long-term EPS growth rate forecasts to be used in the DCF studies in this case should be restricted to those that average at least two different analysts because reliance on single-analyst estimates would be inconsistent with

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.* (citing Opinion No. 414-A, *Transcontinental Gas Pipe Line Corp.*, 84 FERC ¶ 61,084 (1998)).

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 21 (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 17).

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 22 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90).

¹⁰⁷ *Id.* (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 39) (emphasis added).

Commission precedent holding that IBES ESPGs are reliable because they represent the consensus of multiple analysts.¹⁰⁸

49. Dr. Woolridge identified several issues with using the EPS growth rate forecasts of Wall Street analysts as DCF growth rates. First, he stated that the dividend growth rate, and not the earnings growth rate, is the appropriate growth rate in the DCF model.¹⁰⁹ Second, he explained that analysts' long-term earnings growth rate forecasts are not more accurate at forecasting future earnings than naïve random walk forecasts of future earnings.¹¹⁰ Third, he testified that the long-term EPS growth rate forecasts of Wall Street securities analysts are overly optimistic and upwardly biased.¹¹¹ Fourth, he stated that while the IBES ESPGs may be interpreted to be the average and consensus long-term EPS growth rate estimates, there are several issues with this data, including the lack of transparency in the procedures and processes used by Reuters to collect, process, and distribute the IBES long-term EPS growth rate figures.¹¹²

50. Dr. Woolridge testified that Yahoo obtains its EPSG figures from Reuters, that Yahoo's EPSG projections are not kept current, and that this is a serious problem with reliance on Yahoo EPSGs.¹¹³ According to Dr. Woolridge, if Reuters has no current EPSG for a particular company, then Reuters will not publish any EPSG for that company.¹¹⁴ Dr. Woolridge stated that Yahoo, in contrast, keeps re-publishing old EPSGs if it has nothing more recent and continues to post, as current EPSGs for the "Next 5 Years," figures that date back more than two years for ALLETE, Inc. (ALE) and more than 18 months for Otter Tail Corp. (OTTR).¹¹⁵ Additionally, he testified that Yahoo does not normally update its EPSGs more frequently than quarterly, which creates a built-in source of lag in Yahoo-posted EPSGs, as compared to those maintained by Reuters.¹¹⁶ Dr. Woolridge explained that Opinion No. 531 noted that "the DCF model is based on

¹⁰⁸ *Id.* at 23-24.

¹⁰⁹ *Id.* at 25.

¹¹⁰ *Id.* (citing M. Lacina, B. Lee & Z. Xu, *Advances in Business and Management Forecasting* (Vol. 8), Kenneth D. Lawrence, Ronald K. Klimberg (ed.), Emerald Group Publishing Limited, pp. 77-101).

¹¹¹ *Id.* at 26.

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ *Id.* at 27 (see Thomson Reuters, *Methodology For Estimates: A Guide To Understanding Thomson Reuters Methodologies, Terms And Policies For The First Call And I/B/E/S Estimates Databases*, at 18 ("all non-updated estimates are auto-stopped at 180 days"), available at http://www.library.kent.edu/files/TF_Methodology_for_Estimates_October_2009.pdf.

¹¹⁵ *Id.*

¹¹⁶ *Id.*

investors' required return from current, not historical, estimates of dividend yield and growth."¹¹⁷

51. Dr. Woolridge testified that although he has used Yahoo data in the past, he has concluded that Reuters is a better source, and that for some necessary data it is the only available source.¹¹⁸ He used Reuters as the source of his EPSG projections for his DCF studies in the present testimony, but used corresponding Yahoo data and corresponding Zacks data so that the effect of substituting it for Reuters can be inferred.¹¹⁹

52. Dr. Woolridge testified that Reuters indicated that for 7 of the 38 risk-band companies for his Complaint II Period study, there were not then-current EPSGs.¹²⁰ This reduced the number of potential proxy companies in that study to 31.¹²¹ He was able to calculate the ICOEs for each of those 31 companies, but five of those companies' ICOEs are excluded from his results because those companies were involved in substantial merger or merger-like transactions during the study period.¹²² An additional two companies' ICOE are excluded from his results because their calculated ICOEs were too low to pass the sixth criterion he identified above.¹²³ The application of his proxy group criteria left a final proxy group of 24 companies for the Complaint II Period.¹²⁴ Dr. Woolridge discovered that the EPSG rate of 10.89% for Portland General as of March 31 included a significant EPSG input error and he adjusted for this error and used an EPSG of 8.03%, consistent with the correction that Reuters itself subsequently made.¹²⁵

53. Dr. Woolridge explained that for the Complaint III Period, 29 electric utilities pass the proxy group screening criteria 1-4 and have multiple analyst estimates for EPSG.¹²⁶ Dr. Woolridge again stated that he used Reuters as his source of IBES growth rates because Yahoo and Reuters report the same data for current forecasts, and that Yahoo continues to report stale estimates that are not synchronized with the study-period stock prices and dividend yields.¹²⁷ He dropped Allete, Black Hills, El Paso, Empire District, and Otter Tail because they do not have current Reuters EPSG projections.¹²⁸ He dropped

¹¹⁷ *Id.* at 28 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 112).

¹¹⁸ *Id.* at 29.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.* at 30.

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.* at 31.

¹²⁸ *Id.*

Hawaiian Electric and IDACORP because they only have one analyst reporting a long-term EPSG projection and thus lack a true “consensus” EPSG projection.¹²⁹

5. Second-Stage Growth Rate

54. Dr. Woolridge explained that in Opinion Nos. 531 and 531-A, the Commission adopted a two-stage DCF model with long-term GDP growth as the second-stage DCF growth rate and ruled that subsequent cases including this one should do the same.¹³⁰ The Commission explained that a reasonable expectation as to a regulated firms’ growth will recognize that “over the long-run, a regulated firm will grow at the rate of the average firm in the economy, because regulation will generally prevent the firm from being extremely profitable during good periods, but also protects it somewhat during bad periods,”¹³¹ and that “public utilities, which transmit electricity to supply energy to the national economy, will sustain growth consistent with the growth of the economy as [a] whole.”¹³²

6. Filtration of Outlier ICOES

55. Dr. Woolridge testified that for the Complaint II Period, he is using the 4.39% that FERC used in Opinion No. 531.¹³³ However, the later period at issue in the Complaint III Period calls for updated data, and he used an updated GDP growth rate of 4.37%.¹³⁴

56. Dr. Woolridge testified that the Commission finds it reasonable to exclude any company whose low-end ROE fails to exceed the average bond yield by about 100 basis points or more.¹³⁵ For the Complaint II Period, the ICOEs for Edison Electric and Exelon fell below the low-end filter of 5.89%, so those low results were filtered out of the array for that period.¹³⁶ For the Complaint III Period, Dr. Woolridge found a 5.44% low-end threshold for the proxy company ICOEs.¹³⁷

57. Dr. Woolridge testified that just as the Commission eliminates low-end outliers from the proxy group, it is only reasonable to remove high-end outliers that defy the test of economic logic.¹³⁸ He stated that a failure to do so would skew the array of DCF results upwards and he would remove any high-end outlier that is separated from its

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ *Id.* (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 20).

¹³² *Id.* (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 40).

¹³³ *Id.* at 32.

¹³⁴ *Id.*

¹³⁵ *Id.* at 33 (citing *So. Cal. Ed.*, 131 FERC 61,020 at P 56 (2010)).

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.*

nearest neighbor by more than 100 bp.¹³⁹ According to Dr. Woolridge, with such a large number of proxies, a gap that large indicates that there is something illogical or anomalous in the DCF inputs for that proxy that is distorting the ICOE.¹⁴⁰ After correcting the Portland General EPSG, none of the ICOEs Dr. Woolridge found for his proxy group failed the tests he previously identified, so he did not remove any high-end outliers from his DCF results.¹⁴¹

7. DCF Findings

58. For the Complaint II Period, Dr. Woolridge performed a DCF analysis using the Commission's two-stage DCF approach for the period ending March 31, 2014.¹⁴² The retained ICOEs range from 7.02% to 10.64%. The mean and median of the DCF ICOEs are 8.68% and 8.75%. The midpoint, though Dr. Woolridge does not recommend its adoption is 8.83%.¹⁴³

59. For the Complaint III Period, subject to later updating, Dr. Woolridge used a six-month study period ending on November 30, 2014 and applied the same criteria that he used in developing the proxy group for Complaint II Period.¹⁴⁴ The S&P and Moody's comparable risk band for the NETOs is the same for both periods and the change in the group's composition primarily reflects data availability differences and merger and acquisition activity.¹⁴⁵ The proxy group's 22 retained ICOEs range from 6.19% to 11.53%.¹⁴⁶ Their mean and median are 8.77% and 8.55%.¹⁴⁷ The midpoint of their range is 8.86%.¹⁴⁸

(ii) CAPM Studies

60. Dr. Woolridge testified that the CAPM is a risk premium approach to gauging a firm's cost of equity capital and that the cost of equity is the sum of the interest rate on a risk-free bond (Rf) and a risk premium (RP).¹⁴⁹ He testified that three inputs are needed to estimate the required return or cost of equity using the CAPM: the risk-free rate of interest (Rf), the beta, and the expected equity or market risk premium. He stated that Rf is the easiest to measure because it is represented by the yield on long-term Treasury bonds. Beta, the measure of systematic risk, is a little more difficult to measure because

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 34.

¹⁴² *Id.* (citing Ex. CAP-5 at 1-6).

¹⁴³ *Id.* at 35.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* at 36.

there are different opinions about what adjustments, if any, should be made to historical betas due to their tendency to regress to 1.0 over time.¹⁵⁰ The most difficult input of the three to measure is the expected equity or market risk premium.¹⁵¹

61. Dr. Woolridge explained that the yield on long-term U.S. Treasury bonds with 30-year maturities has usually been viewed as the risk-free rate of interest in the CAPM.¹⁵² He testified that the yield on 30-year Treasury bonds has been in the 2.8% to 4.0% range over the 2013-2014 time period and that these rates are currently in the lower portion of this range.¹⁵³ Dr. Woolridge used 4.0% as the risk-free rate, or R_f , in his CAPM.¹⁵⁴ He stated that this is clearly at the high end of the 30-year Treasury yield range in 2013-2014, and thereby his approach provides for a high-end equity cost rate estimate and also provides for the possibility of higher interest rates in the future.¹⁵⁵

62. Dr. Woolridge explained that beta is a measure of the systematic risk of a stock. He stated that the market, usually taken to be the S&P 500, has a beta of 1.0.¹⁵⁶ The beta of a stock with the same price movement of the market also has a beta of 1.0.¹⁵⁷ The beta of a stock whose price movement is greater than that of the market, such as a technology stock, is riskier than the market and has a beta of greater than 1.0.¹⁵⁸ A stock with below average price movement, such as that of a regulated public utility, is less risky than the market and has a beta less than 1.0.¹⁵⁹ Dr. Woolridge stated that several online investment information services, such as Yahoo and Reuters, provide estimates of stock betas. Usually these services report different betas for the same stock. He explained that the differences are usually due to the time period over which the beta is measured and any adjustments that are made to reflect the fact that betas tend to regress to 1.0 over time.¹⁶⁰ Dr. Woolridge used the betas for the companies as provided in the *Value Line Investment Survey*.¹⁶¹ The median betas for the companies in the proxy groups are 0.75 for both the Complaint II and Complaint III periods.¹⁶²

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.* at 37.

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ *Id.* at 38.

¹⁶¹ *Id.*

¹⁶² *Id.* (citing Ex. CAP-7 at 3).

63. Dr. Woolridge explained that measuring the market or equity risk premium is one of the biggest mysteries in finance because it is not actually observable.¹⁶³ Because much of the data indicates that the market risk premium is in the 4.0% to 6.0% range, he used the midpoint of that range, 5.0%, as the market or equity risk premium for both the Complaint II and Complaint III periods.¹⁶⁴

64. Dr. Woolridge displayed the equity cost rate indicated by his CAPM analysis in the following table:¹⁶⁵

Table 1: CAPM Results

	Risk-Free Rate	Beta	Equity Risk Premium	Equity Cost Rate
Docket No. EL13-33	4.0%	0.75	5.0%	7.8%
Docket No. EL14-86	4.0%	0.75	5.0%	7.8%

Dr. Woolridge explains that these results support the conclusion that current capital costs are very low compared to those preceding decades and that his ROE recommendations for both periods represent reasonable equity cost rates for NETOs.¹⁶⁶

d. Placement of the Base ROE

65. Dr. Woolridge recommends placing the NETOs' Base ROE at the median of the array of DCF results.¹⁶⁷ For the Complaint II Period, that Base ROE would be 8.75%.¹⁶⁸ For the Complaint III Period, as of the filing of his direct testimony, that base ROE would be 8.55%.¹⁶⁹ Alternatively, if the Commission were to find that market conditions remain anomalous and warrant moving the ROE higher than the center, Dr. Woolridge recommends setting the ROE no higher than the 75th percentile of the DCF ICOEs.¹⁷⁰ For the Complaint II Period, that Base ROE would be 9.19%.¹⁷¹ For the Complaint III Period, that Base ROE would be 9.4%.¹⁷²

(i) Dr. Woolridge Opines that Study-Period Financial Market Conditions Do Not Warrant Departure from the DCF Center

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 41.

¹⁶⁵ *Id.* at 42.

¹⁶⁶ *Id.*

¹⁶⁷ *Id.* at 43.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

66. Dr. Woolridge explained that, for many years, the Commission's general policy has been to set the base ROEs at the median of the array of DCF ICOEs.¹⁷³ He stated that the Commission's policy of generally relying on the median was recently upheld by the D.C. Circuit, in a 2013 decision on an appeal brought by Southern California Edison (SCE).¹⁷⁴ He explained that, in 2001, before that policy was extended from gas pipelines to electric utilities, the Commission determined in another case concerning SCE's ROE that because SCE then had a riskier bond rating than the proxy group, SCE's ROE would be set at the "top quarter."¹⁷⁵ In Opinion No. 531, the Commission found that capital market conditions during the Docket No. Complaint I Period were so anomalous that the central tendency of the DCF results for that period could not be relied upon to accurately represent NETOs' then-applicable cost of equity.¹⁷⁶ Accordingly, the Commission turned to what it termed non-DCF indicators of NETOs' cost of equity, and it again set the ROE at the top quarter.¹⁷⁷ In so doing, the Commission stated, that this was not a convention to be applied in all circumstances going forward.¹⁷⁸

67. Dr. Woolridge testified that, in addition to making a generalized reference to *Hope* and *Bluefield*, Opinion No. 531 cited three considerations relevant to the top-quarter placement: (1) then-extant "anomalous" capital market conditions; (2) comparisons to state commission ROE awards; and (3) the results of models other than DCF studies of electric utility proxies.¹⁷⁹ He stated that, in Opinion No. 531, the Commission made specific note of the NETOs' claims regarding the state of capital markets:¹⁸⁰

The NETOs further contend that capital market conditions are expected to change significantly in the near-term, and strict reliance on the DCF methodology will result in ROEs "that are insufficient to attract investment on reasonable terms." The NETOs argue that once the Federal Reserve's Quantitative Easing program ends, "which may be in the very near future, interest rates can be expected to rise to more normal levels," and bond levels can be expected to increase.

68. Dr. Woolridge testified that current capital market conditions are not anomalous because the conditions that the Commission found to be anomalous based on the record in Opinion No. 531 proceeding are no longer present.¹⁸¹ He explained that the DCF study period relied upon in Opinion No. 531 consisted of the last quarter of 2012 and the first

¹⁷³ *Id.*

¹⁷⁴ *Id.* (citing *S. Cal. Edison Co. v. FERC*, 717 F.3d 177 (D.C. Cir. 2013)).

¹⁷⁵ *Id.*

¹⁷⁶ *Id.* at 44.

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 151, n.306)).

¹⁷⁹ *Id.* at 45.

¹⁸⁰ *Id.* at 46 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 130).

¹⁸¹ *Id.*

quarter of 2013.¹⁸² During that period, interest rates temporarily dropped to levels not seen since the 1940s.¹⁸³ Since that time, the economy has continued to grow and unemployment, which was above 8.0% for most of 2012, is now at 5.8%.¹⁸⁴ Interest rates, as measured by the ten-year Treasury yield, bottomed out at 1.5% in 2012. Today the ten-year Treasury yield has increased to about 2.2%, which is well above the government bond yields in Germany, Japan, and the United Kingdom.¹⁸⁵ Dr. Woolridge noted that U.S. Treasury yields are not anomalously low when compared to these other governments' bond yields, and nor are utility bond yields anomalously low when compared to the much lower yields on slightly safer government bonds.¹⁸⁶

69. Dr. Woolridge testified that NETOs' predictions of higher interest rates and increased utility bond yields have not been realized.¹⁸⁷ He stated that Dr. Avera has been predicting near-term increases in utility bond yields for years and he has been consistently and substantially wrong.¹⁸⁸ Dr. Woolridge believes that the stock market is the ultimate indicator of current and expected economic conditions. According to Dr. Woolridge, reflective of a growing economy and low interest rates, the stock market is near an all-time high.¹⁸⁹ The S&P 500 provided a return of 32% in 2013 and has added another 13.5% in 2014 (as of mid-December).¹⁹⁰ Dr. Woolridge believes that the capital market conditions that were cited as anomalous in Complaint I are a thing of the past and that he has shown that the market has indicated that an earned return of 10% is more than adequate to meet investors' return requirements as required by *Hope* and *Bluefield*.¹⁹¹ Dr. Woolridge showed in Exhibit CAP-10 that the median of the two-staged DCF analyses done by NETOs' witness (Dr. Avera), EMCOS' witness (Dr. Wilson), and Staff's witness (Ms. Joe) has remained pretty stable between October 2011 and September 2014.¹⁹² Similarly, the True 75th Percentile has remained stable, ranging from 9.05% to 10.18% (113 bp spread).¹⁹³ In contrast, the midpoint of the two-staged DCF studies fluctuated between 8.79% and 11.14% (235 bp) and the Top Quarter has fluctuated between 9.69% and 13.34% (365 bp).¹⁹⁴ Dr. Woolridge drew two conclusions from these trends: (1) the stability of the median value over three years shows that current DCF results are not anomalous, but rather reflects and new normal; and (2) the midpoint and Top Quarter

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

¹⁸⁶ *Id.* at 47.

¹⁸⁷ *Id.* at 48.

¹⁸⁸ *Id.* (see Ex. CAP-8).

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² *Id.* at 49.

¹⁹³ *Id.*

¹⁹⁴ *Id.*

values are highly sensitive to short term fluctuations in stock prices and analyst estimates, while the median and True 75 Percentile are more robust measurements.¹⁹⁵

70. Dr. Woolridge testified that there is no basis to fear that a Base ROE set below 10% would rattle investors because investors in the stock market determine whether returns are adequate to meet their return requirements, and as shown in the table below, earned returns on equity for electric utilities have been about 10.9% in 2014.¹⁹⁶ Judged by the performance of utility stocks, investors have indicated that a return of about 10% is more than adequate to meet their return requirements.¹⁹⁷ The table below compares the performance of the Dow Jones Utilities Index (blue shaded area) relative to the S&P 500 (red line).¹⁹⁸ For 2014, as of December 28th, the DJUI is up 30.25% whereas the S&P 500 is up 13.43%.¹⁹⁹ Dr. Woolridge stated that the fact that the DJUI has risen so strongly, outpacing even the bullish S&P 500, provides direct evidence that an earned return on 10.0% is more than adequate to meet the capital attraction standard under *Hope* and *Bluefield*.²⁰⁰

Figure 4: 2014 Stock Returns, Dow Jones Utilities vs. S&P 500

Source: www.yahoo.com, December 22, 2014



71. Dr. Woolridge testified that the state-level ROEs are much lower than indicated by Dr. Avera and as cited by the Commission in Opinion No. 531.²⁰¹ He commented that the authorized ROEs for electric utilities have been gradually decreased in recent years to reflect historically low capital costs and that ROEs authorized by state utility

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.* at 51

¹⁹⁸ *Id.*

¹⁹⁹ *Id.*

²⁰⁰ *Id.*

²⁰¹ *Id.* at 52.

commissions have lagged behind capital market costs.²⁰² According to Dr. Woolridge, the trend has clearly been towards lower ROEs, and the current norm is clearly below 10%.²⁰³ He cited to data compiled by Regulatory Research Associates, which indicates that state commission-authorized ROEs declined from 10.01% in 2012, to 9.8% in 2013, to 9.75% for the first nine months of 2014.²⁰⁴ Dr. Woolridge thinks a better comparison for the NETOs are the authorized ROEs for electric distribution companies, since these ROEs exclude the risks associated with generation.²⁰⁵ The average authorized state commission ROEs for electric distribution companies over the 2013-2014 time period is 9.51%.²⁰⁶

72. Dr. Woolridge testified that risk premium analysis points towards ROEs between 8.89% and 9.89%.²⁰⁷

(ii) Dr. Woolridge Opined that ROE Determinations Should Reflect All Retained ICOEs, Not Just the Extremes, so that Estimation Errors cancel out instead of being amplified

1. Dr. Woolridge Opined that EPSG projections published on free websites, especially those published by Yahoo, are problematic

73. Dr. Woolridge testified that EPSGs commonly look much less than five years into the future. He stated that this undermines the reliability of the most extreme DCF results because shorter-term earnings projections are inherently more volatile and more likely to be affected by aberrations than is a longer term projection.²⁰⁸ He thinks it important to recognize that the first growth stage used in the Opinion No. 531 analysis implicitly lasts much longer than five years, even though it is sometimes called a five-year stage.²⁰⁹ Dr. Woolridge noted aberrations that occurred during the Complaint I evidentiary proceedings, specifically with Empire District Electric, Great Plains, Southern Company, and UIL Holdings.²¹⁰ He sees three substantive lessons from these aberrations. First, Reuters and Yahoo use third-year EPS projections to derive the EPSGs that they label and post as five-year EPSGs.²¹¹ Second, Reuters and Yahoo appear to pull numbers out of the numerical portion of analyst reports without following those reports' narrative

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *Id.* (citing *Regulatory Focus*, Regulatory Research Associates. October 2014).

²⁰⁵ *Id.*

²⁰⁶ *Id.* (citing Ex. CAP-9).

²⁰⁷ *Id.* at 53.

²⁰⁸ *Id.* at 60.

²⁰⁹ *Id.*

²¹⁰ *Id.* at 62-66.

²¹¹ *Id.* at 67.

context.²¹² Third, there is, out of necessity, a feedback loop by which ICOEs for proxies that derive substantial portions of their revenue through FERC-regulated transmission rates are affected by what analysts anticipate as the outcome of those proceedings. Dr. Woolridge stated that that feedback loop may introduce further distortion, especially if the result is tied to the most extreme ICOEs and FERC-regulated transmission ROEs exceed state-regulated ROEs.²¹³ According to Dr. Woolridge, similar issues affect his current DCF array. The top-end of his latest-period DCF ICOE array, 11.54%, is for Ameren. Ameren's IBES EPS growth rate is 8.9%, which includes growth rates of 9.8% and 8.0%.

74. Dr. Woolridge reviewed analysts research reports for Ameren and discovered that the 9.8% figure was provided in an August 5, 2014 Barclays' research report, which he believes has at least three issues.²¹⁴ First, it is a three-year and not a five-year growth rate.²¹⁵ Second, Ameren's 2013 earnings of \$2.10 per share were a fifteen-year low and were impacted by Ameren's April, 2013 sale of its generation businesses to Dynegy.²¹⁶ Third, the analyst who estimated that EPSG views it as no longer representing forward EPSG from a current baseline.²¹⁷ Dr. Woolridge thus testified that the 9.8% estimate that drives the current IBES average and thus presently sets the top of the ICOE array is not synchronous with the six-month study period from which dividend yields are drawn.²¹⁸

2. Dr. Woolridge Testified that Statistical Measures tied to all retained ICOEs reduce the distortive effect of aberrant DCF inputs, while measures tied to the extremes amplify such distortion

75. Dr. Woolridge emphasized that the key point to his discussions about ICOE fluctuations and aberrations is that the ICOE identified in a given study for a given proxy is an *approximate* measure, not an *exact* measure, of that stock's cost of equity.²¹⁹ From study period to study period, the ICOE returned for a given proxy will often vary widely, even though the stock's price and trading volume history and company news give no reason to think that the stock's actual equity cost has changed commensurately.²²⁰

76. Dr. Woolridge testified that the methodology used to place the base ROE should not overemphasize any single number.²²¹ He stated that using the midpoint or upper half

²¹² *Id.*

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ *Id.*

²¹⁶ *Id.*

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ *Id.* at 68.

²²⁰ *Id.*

²²¹ *Id.* at 70.

both overemphasize an individual high-end DCF ICOE figure and, conversely, the median and the 75th percentile are more robust to data issues.²²² Dr. Woolridge stated that using the mid-point and top-end of the zone of reasonableness can result in a single, error-prone number having a significant effect on the ROE outcome.²²³ He believes this a critical point because each proxy's ICOE may diverge substantially from its underlying actual, but not directly observable, cost of equity.²²⁴ In order to avoid being led astray by measurement error, he advocates for tying the ROE to an array-distilling metric that is substantially influenced by all of the retained ICOEs – such as the median or the mean.²²⁵

Dr. Woolridge disagreed with NETOs' assertion in a procedural brief submitted on December 19, 2014 (at page 13) that all that matters for the DCF methodology is what “actual, published information is considered by investors,” and that it is irrelevant whether “errors in the deliberations of overseas financial analysts ... underlie their opponents' DCF numbers.”²²⁶ He acknowledged that NETOs might have a point if investors had only one source of EPSG projections and took that sole source as gospel in pricing their stock transactions.²²⁷ However, he notes that investors have many information sources. Dr. Woolridge has observed muted market reactions to instances where one source changes their posted EPSGs for a utility only for the market to lack any apparent reaction, and he takes this as demonstration that the market's stock pricing does not materially depend on what those particular websites publish as their EPSG estimates.²²⁸ Dr. Woolridge believes this further evidence in support of his recommendation that, where we know that a particular website-published EPSG is not representative of the information for that proxy on which investors rely, that that EPSG should not be used as a DCF study input.²²⁹

(e) Caps on Maximum ROE for Incented Transmission Projects

77. Dr. Woolridge believes that the decision in this case should set a cap on the maximum ROE applicable to any given portion of the NETOs' service rate base. He stated that Opinion Nos. 531 and 531-A found set such a cap of 11.74% based on the Complaint I record.²³⁰ He also believes the cap should be refreshed for each of the two periods at issue here, based on the record of this proceeding.²³¹

²²² *Id.*

²²³ *Id.*

²²⁴ *Id.*

²²⁵ *Id.*

²²⁶ *Id.* at 73.

²²⁷ *Id.*

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ *Id.* at 75.

²³¹ *Id.*

78. Dr. Woolridge testified that an alternate cap should also be considered. He explained that any one proxy group ICOE is subject to substantial measurement error, more so than measures that give multiple ICOEs substantial consideration. Given the potential for measurement error, setting a cap based on the highest value in the proxy group would result in an unreliable cap.²³² To avoid that problem, Dr. Woolridge thinks the cap should be set at a value that reflects the top end of the range of reasonableness in a way that considers multiple values in the DCF results, not just the single highest number.²³³ He testified that his proposal to remove high-end outliers from the DCF results provides only a partial solution to the problem and that the “outlier” problem is logically distinct from the “unreliable growth rate” problem.²³⁴ He explained that, even with perfectly accurate growth rates, a company could still have unusual circumstances that make it an inappropriate or unreliable proxy, despite passing the general screening criteria; hence the bond yield comparison test that is applied to unusually low ICOEs, and hence his proposal to eliminate high-end outliers.²³⁵ In contrast, even if a DCF proxy group had no outliers, the ICOE value for the company at the top of the group could still be incorrect due to EPSG or dividend yield aberrations.²³⁶ Dr. Woolridge concluded that, to safeguard against the potential for such errors to affect the amounts collectible in rates, the top end of the range should not be measured by any single company.²³⁷

79. Dr. Woolridge proposed an alternate method to cap the maximum ROE. He explained that in the Opinion No. 531 array, the highest ICOE (11.74%) was 1.29 times larger than the median (9.08%), and the spread between the two points was 2.66% or 266 basis points.²³⁸ Thus, as to the maximum ROE allowed on each portion of the rate base, the end result of Opinion No. 531 was to cap the maximum ROE at 1.29 times the DCF median and 266 bp above the DCF median.²³⁹ Rounding upwards and applying a “higher of” test in order to be conservatively generous to investors, Dr. Woolridge stated that it would provide a similar “end result” if the cap for each period in this case were set at the higher of (a) 1.3 times the median of that period’s DCF array, or (b) 275 bp above the median of that period’s DCF array.²⁴⁰ Depending on the distribution of ICOEs, this alternate cap may turn out to be higher or lower than the single highest ICOE; either way, under the alternate cap approach, the single highest ICOE would not set the cap.²⁴¹ Whether this alternate cap exceeded or fell below the single highest ICOE, Dr. Woolridge testified that it would be a more robust method, less sensitive to aberrant DCF inputs for

²³² *Id.*

²³³ *Id.*

²³⁴ *Id.* at 76.

²³⁵ *Id.*

²³⁶ *Id.*

²³⁷ *Id.*

²³⁸ *Id.*

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ *Id.* at 76-77.

any one proxy.²⁴² Accordingly, he thinks it provides a better metric for determining the top of the zone of reasonableness and thereby capping the maximum ROE.²⁴³ Dr. Woolridge stated that he is recommending this alternate cap only for use in conjunction with a Base ROE set at the DCF median.²⁴⁴ In conjunction with the two periods' median values that he (8.75% and 8.55%), this alternate cap results in Maximum ROEs of 11.49% and 11.3%, and provides the basis for Dr. Woolridge's recommended Maximum ROEs.²⁴⁵

80. In Dr. Woolridge's opinion, given the New England construct of a single region-wide Base ROE and single region-wide Maximum ROE, it should follow that the application of the Maximum ROE does not vary depending on whether the transmission owner to which it is applied has a lot or a little in the way of transmission investments that receive project-specific or vintage-specific incentive adders.²⁴⁶ Under the NETOs' version of the cap, a transmission owner that owned substantial older or lower-voltage facilities that do not receive investment-specific incentives would have more "headroom" to receive incentives on new projects than would a new transmission owner that did not have an existing transmission rate base.²⁴⁷ Dr. Woolridge doesn't think that would be appropriate.²⁴⁸ He noted that the use of a single Regional ROE has been and remains favorable to NETOs at the expense of customers because it tends to expand the proxy group to include riskier proxies that tend to generate a longer tail of high ICOEs.²⁴⁹

81. Dr. Woolridge summarized his main conclusions: NETOs; existing Base ROE and Maximum ROE are unreasonable and excessive under current financial market conditions for each of the periods at issue in these dockets; those ROEs should be set based on all of the retained "ICOEs in a well-constructed two-stage DCF study, and therefore should be set at the reduced levels that he identified."²⁵⁰

2. EMCOS Direct Testimony

82. EMCOS presented the testimony of Dr. John W. Wilson. Dr. Wilson's testimony addressed most specifically the question of an appropriate ROE for the NETOs' under prevailing capital market conditions.

²⁴² *Id.* at 77.

²⁴³ *Id.*

²⁴⁴ *Id.*

²⁴⁵ *Id.*

²⁴⁶ *Id.*

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *Id.*

²⁵⁰ *Id.* at 78.

83. Dr. Wilson is a consulting economist and the President of J.W. Wilson & Associates, Inc. His testimony in this case is sponsored by the Eastern Massachusetts Consumer-Owned Systems (EMCOS), each of which is an intervener in this case.

84. Dr. Wilson holds a Masters' Degree in Economics from the University of Wisconsin and a Ph.D. in Economics from Cornell University. His major fields of study were industrial organization and public regulation of business, and his doctoral dissertation was a study of utility pricing and regulation. Since 1973, he has been employed as an economic consultant by various clients including federal, state and local governments, private enterprise and nonprofit organizations. This work has pertained to a wide range of issues concerning public utility regulation, insurance rate regulation, antitrust matters and economic and financial analysis.²⁵¹

85. Dr. Wilson testified that since the issuance of Opinion No. 489, yields on 30-year U.S. Treasuries have fallen more than 200 basis points from 4.9 percent to 2.8 percent today.²⁵² Other interest rates, including long term utility and corporate bonds and mortgage rates have also declined substantially.²⁵³ He explained that bond yields are not a direct measure of the cost of equity, but that the two generally move in a parallel manner.

86. Dr. Wilson testified that it is generally recognized that the cost of common equity changes over time. A cost of common equity that is estimated at one point in time may be quite different from an ROE that was established previously, or different than what may be found to be the case in the future. When interest rates are relatively high, as they have been at times in the past, it is likely that required equity returns are higher than when interest rates are low, as they are at present time.²⁵⁴

(a) The Commission's Two-Step DCF Methodology

87. Dr. Wilson described the Commission's two-step DCF methodology that was adopted in Opinion No. 531. He noted that the Commission's methodology derives a single dividend yield for each proxy group company, using a three step process. First, the high and low stock prices (as reported by the New York Stock Exchange or NASDAQ) for each company in the proxy group are averaged for each of the six months in the study period.²⁵⁵ Second, each company's indicated annual dividend for each of those months is divided by its average stock price for each month, resulting in a monthly dividend yield for each month of the study period for each company.²⁵⁶ Third, the monthly dividend

²⁵¹ Ex. EMC-4 at 2.

²⁵² *Id.* at 9.

²⁵³ *Id.*

²⁵⁴ *Id.* at 10.

²⁵⁵ *Id.* at 12.

²⁵⁶ *Id.*

yields for the individual companies are averaged to provide an indicated overall dividend yield for the proxy group.²⁵⁷

88. Dr. Wilson testified that the Commission in Opinion No. 531 concluded that five-year IBES growth rate data best reflected the most recent record evidence of the growth rates actually expected by the investment community, and that the growth rate used in the DCF model should be the growth rate expected by the market.²⁵⁸ The Commission further concluded that IBES growth rate estimates published by *Yahoo! Finance* was the preferred source of analysts' consensus growth rates.²⁵⁹

89. Dr. Wilson explained that Opinion No. 531 prescribes the use of a national proxy group of companies considered electric utilities by Value Line which includes companies (1) with credit ratings from both Standard and Poor's (S&P) and Moody's that are no more than one notch above or below the utility or utilities whose rate is at issue; (2) that pay dividends and have neither made nor announced a dividend cut during the six-month study period; (3) companies with no major merger activity during the six-month study period; and (4) companies whose DCF results "pass threshold tests of economic logic."²⁶⁰

90. Dr. Wilson testified that the Commission did not attempt to provide a comprehensive or detailed explanation of what may be considered "passing threshold tests of economic logic." He stated that the Commission did, however, identify companies whose DCF results were "low-end outliers" as representing a failure to pass that test.²⁶¹ The Commission explained that the purpose of the low-end outlier test is to exclude from the proxy group those companies whose ROE estimates are below the average bond yield or are above the average bond yield but are sufficiently low that an investor would consider the stock to yield essentially the same return as debt.²⁶² Dr. Wilson stated that, in recent ROE cases (prior to the issuance of Opinion No. 531), the Commission used 100 basis points above the cost of debt as an approximation of this threshold.²⁶³ He stated that, in Opinion No. 531 the Commission found that the Moody's Baa average for the six month study period ending March 31, 2013 was 4.16 percent.²⁶⁴ Consequently, the Commission found it appropriate to exclude from the proxy group in that case any company with a cost of equity estimate of approximately 5.61 percent or lower.²⁶⁵

²⁵⁷ *Id.*

²⁵⁸ *Id.* at 13.

²⁵⁹ *Id.*

²⁶⁰ *Id.* (citing Opinion No. 531 at P 92).

²⁶¹ *Id.* at 14.

²⁶² *Id.*

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ *Id.*

91. Dr. Wilson explained that the Commission did not eliminate high end outliers in Opinion No. 531, but that the presiding judge in that case found that for the DCF model to work properly both the high-end proxy group members and the low-end members must be appropriate.²⁶⁶ However, the presiding judge in that case found no high-end proxy group members that should have been excluded.²⁶⁷ On exceptions to the Initial Decision, the Commission concluded that it did not need to resolve the parties' disputes over exclusion of high-end outliers from the DCF group, stating:²⁶⁸

Because we are adopting a two-step DCF methodology for determining the ROE for public utilities, we find that the high-end outlier issue in this proceeding is moot. Under the two-step DCF methodology, it is unnecessary to screen the proxy group for unsustainable growth rates because the methodology assumes that the long-term growth rate for each company is equal to GDP. As a result, no company in the proxy group we are adopting here has a composite growth rate under the two-step DCF methodology in excess of ... 7.66 percent ... or an ROE in excess of ... 11.74 percent ...

92. Dr. Wilson disagrees with the Commission that the two-step DCF methodology makes it unnecessary to screen the proxy group for unsustainable growth rates because the methodology assumes that the long term growth rate from each company is equal to GDP.²⁶⁹ He believes that, although the two-step methodology can, to a limited extent, moderate distortions caused by excessive IBES growth forecasts that would not be sustainable for five years, it does not eliminate that possibility. That is so because the long term GDP growth rate is only given a 1/3 weight, whereas the IBES forecast is given a weight of 2/3.²⁷⁰

93. Dr. Wilson did not eliminate high-end outliers in his Direct Testimony analyses even though he thinks it likely that several of the very high-end IBES growth forecasts in the two six-month periods described below are not sustainable for the five-year IBES forecast period (e.g., 12 percent annually for ITC Holdings Corp. and 8.90 percent for Ameren) and are clearly outliers in relation to IBES growth forecasts for the remainder of the national proxy group.²⁷¹ He left those observations in his analysis in compliance with his understanding of the Commission's finding in Opinion No. 531 that, under the two-step DCF methodology, it is generally not necessary to screen the proxy group for unsustainable growth rates.²⁷² However, Dr. Wilson states that the application of that

²⁶⁶ *Id.* 15.

²⁶⁷ *Id.* (see Opinion No. 531, 147 FERC ¶ 61,234 at P 115).

²⁶⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 118).

²⁶⁹ *Id.*

²⁷⁰ *Id.* at 16.

²⁷¹ *Id.*

²⁷² *Id.* at 17.

understanding of the Commission's guidance should not be understood as an endorsement of that position.²⁷³

94. Dr. Wilson prepared current DCF estimates of the NETOs' cost of common equity capital based on a Value Line national proxy group, using the Commission's two-step DCF model that he described above.²⁷⁴ The most recent Value Line Investment Survey includes forty-seven companies that Value Line classifies as electric utilities.²⁷⁵ He has used these companies in conjunction with the Commission's two-step DCF procedure to develop an ROE estimate that would be applicable in the development of the NETOs' transmission tariffs in this case.²⁷⁶

(b) DCF Results

95. Dr. Wilson followed the Commission's two-step computational procedure described above, and used IBES data as of March, 2014, for 35 electric utilities that conform to the specified selection process for inclusion in the proxy group.²⁷⁷ The lowest single value implied cost of common equity capital is 7.07% and the highest single value implied cost of common equity capital is 11.26%, with a midpoint of 9.165%, a median of 8.887% and an average of 8.90%.²⁷⁸ He believes these results confirm that the cost of common equity capital for the NETOs is well below the 10.57% base ROE that is now used in calculating formula rates for transmission service under the ISO-NE Open Access Transmission Tariff (OATT). Indeed, they indicate that the NETOs' required ROE is also below the 9.44 percent ceiling that has been suggested by the Complainants in this proceeding.²⁷⁹

96. Dr. Wilson testified that, in conformance with the Commission's guidance in Opinion No. 531, Value Line electric utility companies were included in the national proxy group if they:

1. Had credit ratings from both Standard and Poor's (S&P) and Moody's that are no more than one notch above or below the credit ratings of the NETOs;
2. Paid dividends and have neither made nor announced a dividend cut during the six-month study period;
3. Were not engaged in any major merger activity during the six-month study period; and

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *Id.*

²⁷⁶ *Id.*

²⁷⁷ *Id.* at 18.

²⁷⁸ *Id.* (citing Ex. EMC-2).

²⁷⁹ *Id.*

4. Had DCF results that “pass threshold tests of economic logic.” For the purposes of this selection process DCF results were presumed to pass threshold tests of economic logic if they exceeded corresponding Baa debt costs by at least 100 basis points.

97. Dr. Wilson described how he determined the appropriate range of credit ratings for the test described just above. As of March, 2014 one of the NETOs (UIL Holdings) had an S&P rating of BBB, three were rated BBB+, and four were rated A-.²⁸⁰ At the same time Moody’s rated three of the NETOs Baa1, two at A3 and one (NSTAR) at A2.²⁸¹ Thus, the range for inclusion in Dr. Wilson’s proxy group was an S&P rating in the range of A to BBB- and a Moody’s rating in the range of A1 to Baa2.²⁸² He stated that Entergy Corp., First Energy, Pepco Holdings, PNM Resources, PPL Corp, Scana Corp. and TECO Energy all had Moody’s ratings of less than Baa2.²⁸³

98. Dr. Wilson explained why he eliminated companies from the national proxy group: UNS Energy was actively engaged in merger activity during the six month study period; First Energy had a dividend cut; Several of the companies (Edison International, Entergy and Exelon) had indicated two-step DCF results that were within 100 basis points of the Baa debt rate; and IBES values in or near March, 2014 were not available for El Paso Electric, Madison Gas and Electric, and Otter Tail Corp.²⁸⁴

99. Dr. Wilson described the ROE results for the companies included in the national proxy group using FERC’s two-step DCF model for the six-month period from October, 2013 through March, 2014. The midpoint ROE for the thirty-five companies is 9.165 percent, the average is 8.90 percent and the median is 8.87 percent.²⁸⁵

100. Dr. Wilson testified that the financial risk of the NETOs is significantly less than the financial risks of the national proxy group not only because the NETOs’ business risk is limited to transmission investments whose return and recovery is virtually guaranteed by FERC rate regulation, but also because the NETOs’ common equity financial risk is reduced by virtue of the fact that their common equity ratios are significantly higher than the common equity ratios of the national proxy group.²⁸⁶ He stated that this reduced financial leverage (greater coverage) is of great value to common equity investors as it reduces the financial risk that investors bear in their NETOs common equity holdings.²⁸⁷ Dr. Wilson testified that because the NETOs’ financial risk is substantially less than the

²⁸⁰ *Id.* at 19.

²⁸¹ *Id.*

²⁸² *Id.* at 19-20.

²⁸³ *Id.* at 20.

²⁸⁴ *Id.*

²⁸⁵ *Id.* (see Ex. EMC-2).

²⁸⁶ *Id.* at 21.

²⁸⁷ *Id.*

financial risk of the national proxy group, the allowed ROE for these companies should be below (or, at most, no greater than) the average required ROE for the national proxy group.²⁸⁸ Dr. Wilson recommends that the allowed ROE in this case be set at 8.65%.²⁸⁹

101. Dr. Wilson also applied the Commission's two-step DCF methodology to estimate the cost of equity capital for a national proxy group in the most recent six month period from June, 2014 through November, 2014.²⁹⁰ For his thirty-four company proxy group, the midpoint ROE is 8.87 percent, the average is 8.73 percent, and the median is 8.78 percent.²⁹¹ Dr. Wilson recommends that for the period governed by the two-step DCF results for the most current six months, the allowed ROE should be set at 8.37 percent.²⁹² Dr. Wilson stated that, important to this recommendation is his recognition that the financial risk of the NETOs is significantly reduced because of their high common equity ratios.²⁹³

(c) Anomalous Market Conditions

102. Dr. Wilson cited the Commission's statement in Opinion No. 531 that "any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions."²⁹⁴ He also cited the another Commission statement from that decision: "We are concerned that capital market conditions in the record are anomalous, thereby making it more difficult to determine the return necessary for public utilities to attract capital. In these circumstances, we have less confidence that the midpoint of the zone of reasonableness established in this proceeding accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards."²⁹⁵ Dr. Wilson noted that, based on that reasoning, the Commission determined to establish an ROE in that proceeding on the unusual basis of the midpoint of the upper half of the calculated DCF results in the case.²⁹⁶

103. Dr. Wilson testified that, to the extent that post-2008 historically low costs of capital could ever have been considered to be "anomalous," current capital market conditions for both debt and equity capital have proven sufficiently durable that they cannot fairly be characterized as "anomalous" at present.²⁹⁷ He remarked that substantial

²⁸⁸ *Id.*

²⁸⁹ *Id.*

²⁹⁰ *Id.* at 22 (see Ex. EMC-3).

²⁹¹ *Id.* at 23 (see Ex. EMC-3).

²⁹² *Id.* at 24.

²⁹³ *Id.*

²⁹⁴ *Id.* (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 41).

²⁹⁵ *Id.* at 24-25 (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

²⁹⁶ *Id.* at 25.

²⁹⁷ *Id.*

time has passed since the DCF record was established in Docket No. EL11-66-000, and there have been vast changes in equity markets over that time.²⁹⁸ Consequently, he does not believe it can be concluded that the same “anomalous” capital market conditions continue to prevail and it therefore thinks it inappropriate to restrict consideration of DCF results to only the upper half of the analytical DCF range as was done in Opinion No. 531.²⁹⁹

104. Dr. Wilson explained that while it is the case that interest rates are considerably lower than they were years ago, that is a reflection of low money costs that are not an anomaly.³⁰⁰ He testified that interest rates have been low for several years and are expected to remain low in the foreseeable future.³⁰¹ He notes that, at the same time, equity markets have roared.³⁰² Both the New York Stock Exchange and the NASDAQ have moved into record high territory. The Dow Jones Industrial Average, which was under 12,000 in 2011, has exceeded 18,000 recently.³⁰³ The S&P 500 which was at 1,200 in 2011 has topped 2,000.³⁰⁴ While this is not reflective of debt markets, where interest rates remain relatively low, Dr. Wilson thinks the focus here must be on equity market conditions – which he testified are far from depressed (or “anomalous”).³⁰⁵

105. Dr. Wilson testified that further evidence of equity capital market recovery is illustrated in the chart below which shows the S&P 500 90 day average pair-wise stock correlation from 2009 to 2014. He explained that correlation was very high during unstable periods in 2010 and 2011, but it came back down to normal levels in 2013 and 2014.³⁰⁶ Dr. Wilson explained that the periods of high correlation indicate lack of market confidence, when a herd mentality rushes to sell many different stocks at the same time.³⁰⁷ Conversely, low correlation indicates greater confidence in market conditions, allowing for more focused buy/sell decisions and greater sector diversity.³⁰⁸ Dr. Wilson testified that there is no question that anomalous equity market conditions have reversed in the last two years and that today the stock market reflects general confidence in the equity market’s current state of affairs despite low interest rates in debt markets.³⁰⁹

[This space is intentionally left blank]

²⁹⁸ *Id.*

²⁹⁹ *Id.* at 26.

³⁰⁰ *Id.*

³⁰¹ *Id.*

³⁰² *Id.*

³⁰³ *Id.*

³⁰⁴ *Id.*

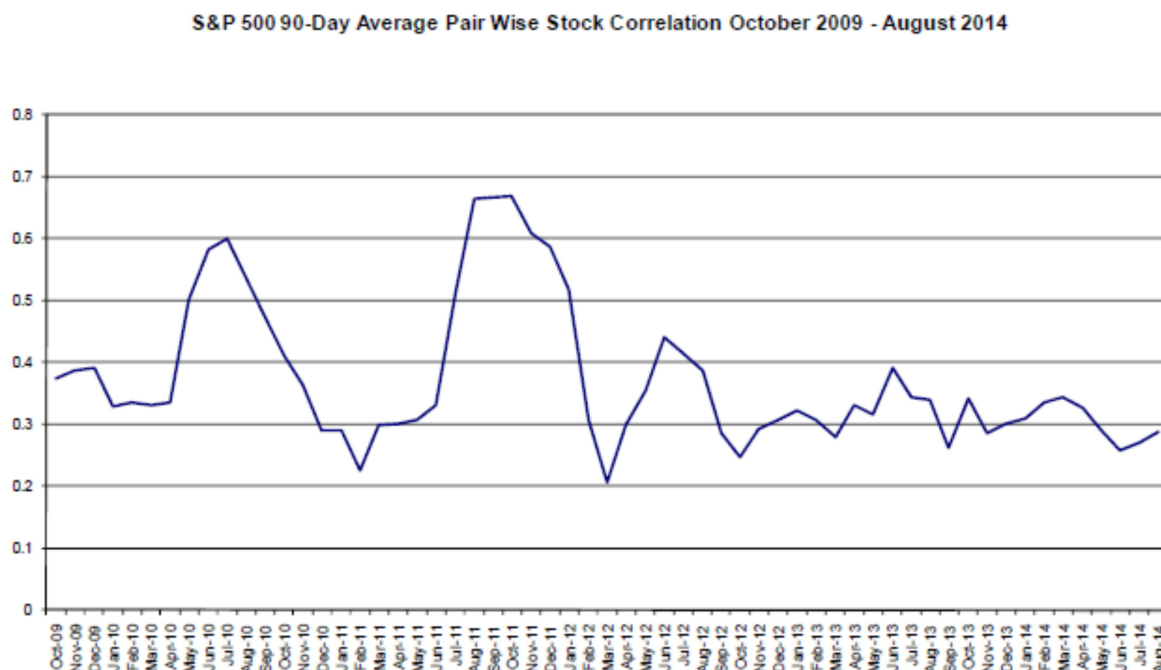
³⁰⁵ *Id.*

³⁰⁶ *Id.* at 26-27.

³⁰⁷ *Id.* at 27.

³⁰⁸ *Id.*

³⁰⁹ *Id.*



Source: Beaconcrest Capital Management, Monthly Commentary - August 2014

(d) Capital Structure

106. Dr. Wilson testified that in approving the capital structure to be used for ratemaking purposes, the Commission uses an operating company's actual capital structure if the operating company: (1) issues its own debt without guarantees; (2) has its own bond rating; and (3) has a capital structure within the range of capital structures approved by the Commission.³¹⁰ If the operating company meets these requirements, then the Commission will find that the operating company has demonstrated a separation of financial risks between the operating and parent company.³¹¹ Where these requirements are not met, the Commission uses the consolidated capital structure of the parent company or a proxy capital structure in order to set the overall rate of return for the operating utility company.³¹² To the extent that parties contend that these actual capital structures cause unjust and unreasonable costs to ratepayers because they are excessive and produce an unjust and unreasonable base ROE, the Commission has directed that such concerns are best addressed with respect to that ROE.³¹³ In this case, Dr. Wilson explained that the equity ratios of the NETOs are so high that when they are compounded with the two-step DCF results discussed above they produce an unjust and unreasonable ROE.³¹⁴ Dr. Wilson testified that, consequently, an ROE adjustment is required to

³¹⁰ *Id.* at 28-29.

³¹¹ *Id.* at 29.

³¹² *Id.*

³¹³ *Id.*

³¹⁴ *Id.*

account for the lower financial risk associated with the NETOs' thick common equity ratios.³¹⁵

107. Dr. Wilson explained that an allowed ROE must be evaluated in conjunction with capital structure in order to understand and assess its reasonableness. A relatively high ROE, that may be deemed appropriate together with a very low equity ratio, may nevertheless be entirely unreasonable with a thick equity ratio.³¹⁶ A 10 percent after tax ROE that produces a 6.0% weighted equity return with a 60 percent equity ratio will produce only a 4.0% weighted equity return with a 40 percent equity ratio. Thus, the realized equity return will be half again (50%) greater with a 60 percent equity ratio than with a 40% equity ratio, even though the ROE is exactly the same in both cases. It is therefore essential, Dr. Wilson testified, to consider the associated common equity ratios in asserting the reasonableness of any ROE allowance.³¹⁷ He stated that, in this case, the NETOs' common equity ratios vary substantially between the companies, producing wildly diverging total equity returns with the same ROE.³¹⁸

108. Dr. Wilson testified that, according to the most recent annual update information filed by the NETOs in Commission Docket No. RT04-2-000 on the Regional Network Service rate inputs under ISO New England's OATT, the common equity percentages for each of the NETOs are as follows:³¹⁹

Central Maine Power	60.63%
Bangor Hydro	67.45%
Vermont Transco	52.97%
United Illuminating	48.31%
New England Power	64.08%
Western Mass. Elec.	50.47%
Connecticut L&P	51.00%
Public Service of N.H.	52.06%
NSTAR	56.77%
New Hampshire Trans.	59.96%
Fitchburg G&E	48.81%

Dr. Wilson explained that while all of these percentages are quite high for regulated electric transmission service, there is substantial variation between companies

³¹⁵ *Id.*

³¹⁶ *Id.* at 30.

³¹⁷ *Id.*

³¹⁸ *Id.*

³¹⁹ *Id.* at 31.

within the group.³²⁰ This causes important and significant cost differences that must be considered in setting a just and reasonable ROE in this case.³²¹

109. Dr. Wilson testified that the simple average common equity ratio for the NETOs listed above was 55.7 percent at December 31, 2013.³²² In contrast, the simple average common equity ratio for the national proxy group in this case is 49.4 percent.³²³ Dr. Wilson thinks the NETOs' substantially higher average common equity ratio would warrant an equity return allowance well below the level indicated for the proxy group.³²⁴

110. Dr. Wilson opined that the 6.3 percentage point difference between the average common equity ratio for the NETOs and the average for the proxy group warrants an ROE adjustment of approximately 1.0 percentage points.³²⁵ However, in recognition of the Commission's emphasis on capital attraction for transmission investments, Dr. Wilson recommends higher moderated ROE allowances of 8.37% for the six month period ending in March, 2014 and 8.65 percent for the most recent six month period ending in November, 2014.³²⁶ These recommended ROE values reflect the average or mid-point of the 8.13% and 7.87% calculated values above and the unadjusted mid-points of 9.165% and 8.87% derived in Exhibit Nos. EMC-2 and EMC-3.³²⁷

3. NETOs Answering Testimony

111. The New England Transmission Owners (NETOs) sponsored the direct and answering testimony of Dr. William E. Avera and Ms. Ellen Lapson.

3.1 Dr. Avera

112. Dr. Avera is a financial, economic, and policy consultant to business and government. He received his Ph.D. in economics and finance from the University of North Carolina, has taught at multiple universities, and worked for the Public Utility Commission of Texas. For over 40 years, Dr. Avera has testified before the Commission, other federal bodies, Canadian bodies, courts, and legislative committees. He holds the Chartered Financial Analyst designation. He was selected Vice Chairman of the National Association of Regulatory Commissioners (NARUC) Subcommittee on Economics and was appointed to NARUC's Technical Subcommittee on the National Energy Act.

³²⁰ *Id.*

³²¹ *Id.*

³²² *Id.* at 32.

³²³ *Id.*

³²⁴ *Id.*

³²⁵ *Id.*

³²⁶ *Id.* at 34.

³²⁷ *Id.*

113. The testimony of Dr. Avera was submitted by NETOs on February 2, 2015. The purpose of his testimony is to respond to the December 30, 2014 testimony of J. Randall Woolridge, Exhibit CAP-1, on behalf of the CAPs, and John W. Wilson, Exhibit EMC-1, submitted on behalf of the EMCOS.

114. Dr. Avera presented his analyses of a fair base ROE for the NETOs applicable to the Docket No. EL14-86 Period. For his ROE analysis, Dr. Avera followed the approach adopted by the Commission in Opinion No. 531, which included five criteria:³²⁸

- (1) Companies that are included in the Electric Utility Industry groups compiled by Value Line;
- (2) Electric utilities that paid common dividends over the last six months and have not announced a dividend cut since that time;
- (3) Electric utilities with no ongoing involvement in a major merger or acquisition that would distort quantitative results;
- (4) Electric utilities that have been assigned a corporate credit rating between “BBB-” and “A” by S&P; and
- (5) Electric utilities that have been assigned a long-term issuer rating between “Baa2” to “A1” by Moody’s Investors Service (“Moody’s”).

Dr. Avera’s national proxy group is composed of 32 comparable-risk utilities for the Complaint III Period, and 36 companies for the Docket Complaint II Period.³²⁹

115. As in Opinion No. 531, Dr. Avera explained that he applied the “comparable risk band” methodology in his analysis, which the Commission interpreted as one notch higher and lower than the corporate credit ratings of the utility at issue within the investment grade ratings scale.³³⁰

116. Dr. Avera explained that he followed well-established Commission policy in determining the dividend yield for the national group.³³¹ This calculation was made by dividing the indicated dividend in each month by the corresponding average of the monthly low and high stock prices.³³² Moreover, he also explained that he used the most recent declared dividend to be more congruent with the assumptions of the DCF approach, which is forward looking.³³³ Following Opinion No. 531, Dr. Avera adjusted

³²⁸ Ex. NET-1300 at 14.

³²⁹ *Id.* (citing Ex. NET-1314).

³³⁰ *Id.* (see Ex. NET-1303).

³³¹ *Id.* at 17.

³³² *Id.*

³³³ *Id.*

the dividend yield using the weighted average growth rate.³³⁴

117. Dr. Avera recognized that the Commission uses two growth rates in its two-step DCF model, a short-term growth rate, for which he used IBES consensus 5-year earnings growth forecasts from *Yahoo! Finance*, and a long-term growth rate, for which he used nominal gross domestic product (GDP).³³⁵ For both growth rates, Dr. Avera followed used the data sources the Commission used in Opinion No. 531.³³⁶ Moreover, Dr. Avera weighted the two growth rates as the Commission did in Opinion No. 531, giving two-third's weight to short-term and one-third's weight to long term.³³⁷ Dr. Avera's individual DCF estimates ranged from 6.58% to 11.56%.³³⁸

118. Dr. Avera testified that in evaluating the results of the constant growth DCF model, it is appropriate to eliminate DCF cost of equity estimates that are implausibly low or high.³³⁹ For low-end outliers, the Commission has used 100 basis points above the six-month average public utility bond yield as an approximation of this threshold, but has also recognized that this is a flexible test.³⁴⁰

119. In his analysis, Dr. Avera found that the low-end of the DCF range using IBES growth rates was set by a cost of equity estimate of 6.58%.³⁴¹ However, he argued that considering that current capital market conditions are not representative, and consistent with the upward trend expected for utility bond yields, the 6.58% estimate imparts a downward bias to the DCF results.³⁴² Retaining implausibly low estimates in the range made his analysis conservative as a measure of the cost of equity for the NETOs, which further supports adopting a base ROE from within the upper end of the zone of reasonableness that includes this low-end value.³⁴³ Additionally, Dr. Avera eliminated low-end DCF estimates based on Value Line EPS growth rates of 5.98% and 5.72%.³⁴⁴

120. Dr. Avera considered the issue of evaluating high-end outliers moot because of the new two-step DCF analysis it adopted in Opinion No. 531.³⁴⁵ Therefore, he explained that the 11.56% and 16.22% DCF cost of equity estimates shown on pages 1 and 2 of Exhibit NET-1304, respectively, provides a reasonable basis on which to evaluate

³³⁴ *Id.* at 19.

³³⁵ *Id.* at 19-20.

³³⁶ *Id.* at 20.

³³⁷ *Id.* at 21.

³³⁸ *Id.* (see Ex. NET 1304).

³³⁹ *Id.* at 22.

³⁴⁰ *Id.* at 23 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 122).

³⁴¹ *Id.* at 24 (Ex. NET-1304).

³⁴² *Id.* at 24-25 (see Ex. NET-1304).

³⁴³ *Id.* at 25; Ex. NET-1304.

³⁴⁴ *Id.* (see Ex. NET-1304 at 2).

³⁴⁵ *Id.* at 25-26.

investors' required rate of return for the NETOs, and are properly included.³⁴⁶

121. For Dr. Avera's equity risk premiums, he subtracted the average yield on public utility bonds from the average allowed ROE for electric utilities to calculate equity risk premiums for each year between 2006 and 2014.³⁴⁷ These equity risk premiums for electric utilities averaged 4.80%, and the yield on public utility bonds averaged 5.90%.³⁴⁸

122. Dr. Avera testified that there is considerable evidence that the magnitude of equity risk premiums is not constant and that equity risk premiums tend to move inversely with interest rates.³⁴⁹ In other words, when interest rate levels increase, equity risk premiums narrow, and when interest rates decrease, equity risk premiums widen.³⁵⁰ The implication of this inverse relationship is that the cost of equity does not move as much as, or in lockstep with, interest rates, therefore, when implementing the risk premium method, adjustments may be required to incorporate this inverse relationship if current interest rate levels have diverged from the average interest rate level presented in the data set.³⁵¹

123. Dr. Avera explained that higher required equity risk premiums offset the impact of declining interest rates on the ROE.³⁵² Further, with an average six-month historical yield on triple-B public utility bonds at December 2014 at 4.70%, this implied a current equity risk premium of 5.77% for electric utilities. Adding this equity risk premium to the average six-month historical yield on triple-B bonds implies a cost of equity of 10.47%.³⁵³

124. Dr. Avera testified that the CAPM approach generally is considered to be the most widely referenced method for estimating the cost of equity among academicians and professional practitioners.³⁵⁴ He expressed CAPM mathematically as:³⁵⁵

$$R_j = R_f + \beta_j(R_m - R_f)$$

where: R_j = required rate of return for stock j;
 R_f = risk-free rate;
 R_m = expected return on the market portfolio; and,
 β_j = beta, or systematic risk, for stock j.

125. Dr. Avera noted that CAPM is forward looking. In order to capture the

³⁴⁶ *Id.* at 26 (see Ex. NET-1304 at 1-2).

³⁴⁷ *Id.* at 29 (see Ex. NET-1305 at 3).

³⁴⁸ *Id.* (see Ex. NET-1305 at 3).

³⁴⁹ *Id.*

³⁵⁰ *Id.* at 29-30.

³⁵¹ *Id.* at 30.

³⁵² *Id.* at 31.

³⁵³ *Id.*

³⁵⁴ *Id.* at 32.

³⁵⁵ *Id.*

expectations of today's investors in current capital markets, he estimated the expected market rate of return by conducting a DCF analysis on the dividend paying firms in the S&P 500.³⁵⁶ Dr. Avera calculated a market equity risk premium of 8.9%.³⁵⁷ He relied on the beta values reported by Value Line, which in his experience are the most widely referenced source for beta in regulatory proceedings.³⁵⁸

126. Dr. Avera explained that because financial research indicates that the CAPM does not fully account for observed differences in rates of return attributable to firm size, a modification is required to account for this size effect.³⁵⁹ As such, his CAPM analyses also incorporated an adjustment to recognize the impact of size distinctions, as measured by the market capitalization for the firms in the National Group.³⁶⁰ Dr. Avera's implied ROE for the national group using the CAPM approach implied an ROE range of 7.67% to 12.86%, with a midpoint of 10.26%.³⁶¹

127. Dr. Avera also evaluated the ROE by reference to expected rates of return for electric utilities.³⁶² He explained that reference to rates of return available from alternative investments of comparable risk can provide an important benchmark in assessing the return necessary to assure confidence in the financial integrity of a firm and its ability to attract capital.³⁶³

128. Dr. Avera explained that the traditional comparable earnings test identifies a group of companies that are believed to be comparable in risk to the utility.³⁶⁴ The actual earnings of those companies on the book value of their investment are then compared to the allowed return of the utility.³⁶⁵ While the traditional comparable earnings test is implemented using historical data taken from the accounting records, it is also common to use the projections of returns on book investment, such as those published by recognized investment advisory publications like Value Line.³⁶⁶ Dr. Avera emphasized that his application of the expected earnings approach was focused exclusively on forward-looking projections, not historical data.³⁶⁷

³⁵⁶ *Id.* at 33.

³⁵⁷ *Id.* at 33-34.

³⁵⁸ *Id.* at 34.

³⁵⁹ *Id.* at 35.

³⁶⁰ *Id.*

³⁶¹ *Id.* at 36 (see Ex. NET-1306 at 1).

³⁶² *Id.*

³⁶³ *Id.*

³⁶⁴ *Id.* at 37.

³⁶⁵ *Id.*

³⁶⁶ *Id.*

³⁶⁷ *Id.* at 38.

129. Dr. Avera testified that Value Line reports that its analysts anticipate an average rate of return on common equity for the electric utility industry of 10.57% over its 2017-2019 forecast horizon. He explained that in *Southern California Edison*, the Commission correctly recognized that if the rate of return were based on end-of-year book values, such as those reported by Value Line, it would understate actual returns because of growth in common equity over the year.³⁶⁸ Accordingly, consistent with the Commission's findings and the theory underlying this approach, Dr. Avera made an adjustment to compute an average rate of return.³⁶⁹ Value Line's projections for the National Group resulted in an adjusted range of expected rates of return from 7.62% to 15.27%, with a midpoint of 11.44%.³⁷⁰

130. Dr. Avera presented alternative tests to demonstrate that the end-results of the ROE analyses he discussed were reasonable and did not exceed a fair ROE given the facts and circumstances that apply to the NETOs.³⁷¹ He challenged the Commission's decision in Opinion No. 531 to not consider the risk premium analysis based on allowed ROEs for gas pipelines or the non-utility DCF analysis because they are not based on electric utilities.³⁷² He argued that the Commission's basis is not sufficient to ignore these findings and that risk premiums for natural gas pipelines provide a very logical benchmark to evaluate corresponding DCF results for electric utilities.³⁷³ Dr. Avera explained that his risk premium analysis adjusts for industry differences in arriving at an implied ROE using this method.³⁷⁴ He explained further that the relationship is such that if electric transmission investments are unable to offer a return that is commensurate with what investors expect to earn from a non-regulated company of comparable risk, then capital will flow away from electric transmission to other competing investment opportunities.³⁷⁵ Dr. Avera cited to Opinion No. 531, which stated that utilities "must compete for capital with other utilities (*and companies in other sectors*) throughout the nation."³⁷⁶

131. Dr. Avera also used the risk premium approach in his analysis by using ROEs authorized for electric utilities by state regulatory commissions.³⁷⁷ Based on ROEs approved by state regulators, Dr. Avera calculated that the current cost of equity for

³⁶⁸ *Id.* (citing *S. Cal. Edison Co.*, Opinion No. 445, 92 FERC ¶ 61,070 at 61,263 & n.38 (2000)).

³⁶⁹ *Id.*

³⁷⁰ *Id.* at 38-39.

³⁷¹ *Id.* at 39-54.

³⁷² *Id.* at 40 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 126, n.288).

³⁷³ *Id.*

³⁷⁴ *Id.*

³⁷⁵ *Id.* at 41.

³⁷⁶ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 96 (emphasis added)).

³⁷⁷ *Id.* (see Ex. NET-1309 at 3).

electric utilities is 10.10%.³⁷⁸

132. Dr. Avera explained how the empirical capital asset pricing model (ECAPM) differs from the traditional application of the CAPM approach in that it is designed to correct for an observed bias in the CAPM results.³⁷⁹ ECAPM is represented by the following formula, showing that the expected return on a security is related to its risk:³⁸⁰

$$R_j = R_f + 0.25(R_m - R_f) + 0.75[\beta_j(R_m - R_f)]$$

133. Dr. Avera described how this ECAPM equation, and the associated weighting factors, recognizes the observed relationship between standard CAPM estimates and the cost of capital documented in the financial research, and corrects for the understated returns that would otherwise be produced for low beta stocks.³⁸¹ Dr. Avera's application of the forward looking ECAPM approach resulted in a theoretical cost of equity range of 9.00% to 11.33%, or 8.67% to 13.08% after incorporating the size adjustment corresponding to the market capitalization of the individual utilities.³⁸² The midpoints of these ranges were 10.16% and 10.87%, respectively.³⁸³

134. Dr. Avera compared his recommended ROE for the NETOs with an ROE benchmark based on natural gas pipelines.³⁸⁴ He cited to *Williston Basin*, where in contrast with Opinion No. 531, the FERC staff, based on common characteristics in both industries, proposed expanding the proxy group used to estimate the cost of equity for gas pipelines to include utilities with electric utility operations, noting that investors "see a linkage between the risk profiles of different types of utilities."³⁸⁵ He also cited to *Southern California Edison*, in which the Commission stated that it was not appropriate to consider returns in the natural gas industry when evaluating electric utilities because "the electric industry is just beginning a significant new phase of its restructuring."³⁸⁶ Thirteen years have passed since this statement was made, and the Commission recognized in Opinion No. 531 that the electric industry and its restructuring have matured, which, Dr. Avera argued, confirmed that reference to gas company ROEs is relevant.³⁸⁷ Dr. Avera calculated that the average ROE for natural gas pipelines has

³⁷⁸ *Id.* (see Ex. NET-1309 at 1).

³⁷⁹ *Id.* at 42.

³⁸⁰ *Id.* at 43.

³⁸¹ *Id.*

³⁸² *Id.* at 43-44 (see Ex. NET-1310 at 1).

³⁸³ *Id.* (see Ex. NET-1310 at 1).

³⁸⁴ *Id.* at 44.

³⁸⁵ *Id.* (citing *Williston Basis Interstate Pipeline Co.*, Docket No. RP00-107-000, Prepared Direct and Answering Testimony of Commission Staff Witness George M Shriver, III at P 17 (June 7, 2000)).

³⁸⁶ *Id.* (citing *S. Cal. Edison Co.*, 92 FERC ¶ 61,070 at 61,261).

³⁸⁷ *Id.*

exceeded the ROE approved by the Commission for electric utilities by 2.17% between 2006 and 2014.³⁸⁸ He subtracted this spread from the 12.76% current risk premium estimate for natural gas pipelines resulted in a current implied ROE for an electric utility of 10.59%, if one were to assume that the risk spread between electric utilities and natural gas pipeline companies should remain constant.³⁸⁹

135. Dr. Avera also considered anticipated capital market changes, based on projections for utility bonds published by IHS Global Insight and EIA, in applying the risk premium, CAPM, and ECAPM approaches.³⁹⁰ He explained that there is widespread consensus that interest rates are currently anomalous, and will increase materially as the economy continues to strengthen.³⁹¹ As a result, Dr. Avera argued that current bond yields are likely to understate capital market requirements at the time the outcome of this proceeding becomes effective (and beyond).³⁹²

136. Dr. Avera incorporated a forecasted yield for 2015-2019 and adjusting for changes in interest rates since the study period implied an equity risk premium based on Commission-authorized ROEs of 4.12% for electric utilities.³⁹³ Adding this equity risk premium to the implied average yield on triple-B public utility bonds for 2015-2019 of 6.74% resulted in an implied cost of equity of 10.86%.³⁹⁴ Dr. Avera applied the risk premium approach based on ROEs for electric utilities authorized by state regulators and calculated that incorporating average forecasted yields for 2015-2019 implied a cost of equity of approximately 11.27%.³⁹⁵ Additionally, Dr. Avera's risk premium analysis based on the Commission's findings for natural gas pipelines implied a cost of equity estimate of 10.77% based on the forecasted yield for utility bonds.³⁹⁶

137. Dr. Avera also applied the CAPM and ECAPM using forecasted Treasury bond yield for 2015-2019 implied an ROE range of 8.58% to 11.24% for the National Group, or 8.25% to 12.99% after adjusting for the impact of relative size.³⁹⁷ He also incorporated forecasted Treasury bond yield for 2015-2019 and found an implied ECAPM range of 9.44% to 11.43% for the National Group, or 9.11% to 13.18% after adjusting for the impact of relative size.³⁹⁸

³⁸⁸ *Id.* at 46-47.

³⁸⁹ *Id.*

³⁹⁰ *Id.* at 47.

³⁹¹ *Id.*

³⁹² *Id.*

³⁹³ *Id.* (see Ex. NET-1305 at 2).

³⁹⁴ *Id.* (see Ex. NET-1305 at 2).

³⁹⁵ *Id.* at 48 (Ex. NET-1309 at 2).

³⁹⁶ *Id.* (Ex. NET-1311 at 2).

³⁹⁷ *Id.* (Ex. NET-1306 at 2).

³⁹⁸ *Id.* (see Ex. NET-1310 at 2).

138. Dr. Avera next looked to the low-risk non-utility DCF model and he recognized that utilities need to compete with non-regulated firms with comparable risk for capital.³⁹⁹ He explained that *Bluefield* and *Hope* support the proposition that it is the degree of risk, not the nature of the business, which is relevant in evaluating the allowed ROE for a utility.⁴⁰⁰ He claimed that using the non-utility proxy group would make the growth estimates from the DCF model more reliable.⁴⁰¹

139. Dr. Avera applied five criteria to develop his non-utility proxy group, which was composed of those U.S. companies followed by Value Line that: (1) pay common dividends; (2) have a Safety Rank of “1”; (3) have a Financial Strength Rating of “B++” or greater; (4) have a beta less of 0.70 or less; and (5) have investment grade credit ratings from S&P.⁴⁰² He explained that the average risk indicators for the Non-Utility Proxy Group suggested less risk than for the proxy group of electric utilities.⁴⁰³ His DCF analysis for the Non-Utility Group resulted in an ROE range of 8.03% to 12.86%, with a midpoint of 10.45%.⁴⁰⁴ Dr. Avera reconciled the divergence between the DCF results for these groups of utility and non-utility firms by attributing it to the fact that DCF estimates invariably depart from the returns that investors actually require because their expectations may not be captured by the inputs to the model, particularly the assumed growth rate.⁴⁰⁵ Because the actual cost of equity is unobservable, and DCF results inherently incorporate a degree of error, Dr. Avera claimed that the cost of equity estimates for the Non-Utility Group provides an important benchmark in evaluating a fair ROE for the NETOs.⁴⁰⁶

140. Dr. Avera identified other considerations that are relevant in setting the return on equity for a utility.⁴⁰⁷ He discussed floating costs, which are the costs associated with “floating” the new equity securities, such as legal, accounting, and printing fees.⁴⁰⁸ Equity floatation costs, according to Dr. Avera, are not included in a utility’s rate base.⁴⁰⁹ Because there is no accounting convention to accumulate the flotation costs associated with equity issues, Dr. Avera testified that they must be accounted for indirectly, with an

³⁹⁹ *Id.* at 48-49.

⁴⁰⁰ *Id.* at 49-50 (citing *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n of W. Va.*, 262 U.S. 679 (1923) (*Bluefield*); *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (*Hope*)).

⁴⁰¹ *Id.* at 50.

⁴⁰² *Id.* at 50-51.

⁴⁰³ *Id.* at 51.

⁴⁰⁴ *Id.* at 52 (see Ex. NET-1312).

⁴⁰⁵ *Id.*

⁴⁰⁶ *Id.* at 53.

⁴⁰⁷ *Id.* at 54.

⁴⁰⁸ *Id.*

⁴⁰⁹ *Id.* at 54-55.

upward adjustment to the cost of equity being the most appropriate mechanism.⁴¹⁰ He testified further that issuance costs are a legitimate consideration in setting the return on equity for a utility, and applying these expense percentages to an average dividend yield of 3.7% implies a flotation cost adjustment on the order of 13 to 37 basis points.⁴¹¹ While he did not make an explicit adjustment to the results of his quantitative methods to include an adjustment for flotation costs, he explained that this is a legitimate consideration that supports the reasonableness of his recommended base ROE for the NETOs in this case.⁴¹²

141. Dr. Avera testified that his approach for the Complaint II Period mirrors his approach for the Complaint III Period. However, he identified a key disagreement with the CAPs over the composition of the proxy group for the Complaint II Period.⁴¹³ Dr. Avera took issue over the CAP's exclusion of ITC Holdings Corporation (ITC) from the proxy group for this period due to alleged distortions from merger activity.⁴¹⁴ Dr. Avera argued that while ITC was involved in a merger agreement with Entergy Corporation (Entergy), the transaction was terminated well before the end of the Complaint II Period.⁴¹⁵ Although Dr. Avera recognized that the date that ITC and Entergy decided to terminate their merger fell within the six-month period ending February 2014, he stated that there was no evidence of any distortion attributable to the transaction.⁴¹⁶ Dr. Avera also cited to Opinion No. 531, where the Commission noted that elimination of a proxy company based on merger or acquisition activity is contingent on a demonstration that the transaction results in a distortion of the DCF inputs, and the Commission specifically ruled out excluding proxy firms without a concrete showing that the transaction "impacted the DCF results by distorting the companies' stock prices, dividends, or growth rates."⁴¹⁷ Dr. Avera testified that Dr. Woolridge, who had the burden to produce such evidence, provided none.⁴¹⁸ Dr. Avera concluded that ITC should be retained in the proxy group.⁴¹⁹

142. Dr. Avera discussed the regulatory standards underlying a fair rate of return and

⁴¹⁰ *Id.*

⁴¹¹ *Id.* at 55-56 (see Ex. NET-1304 at 1).

⁴¹² *Id.* (citing *Golden Spread Electric Cooperative, Inc. v. Southwestern Public Service Co.*, 115 FERC ¶ 63,043 at PP 96, 104 (2006), *affirmed in relevant part*, Opinion No. 501, 123 FERC ¶ 61,047 at PP 57, 62-65 (2008), *on reh'g*, Opinion No. 501-A, 144 FERC ¶ 61,132 (2013), *reh'g granted for further consideration*, EL05-19-015 and ER05-168-014 (Oct. 10, 2013)).

⁴¹³ *Id.* at 56-57.

⁴¹⁴ *Id.* at 57.

⁴¹⁵ *Id.*

⁴¹⁶ *Id.* at 57-58.

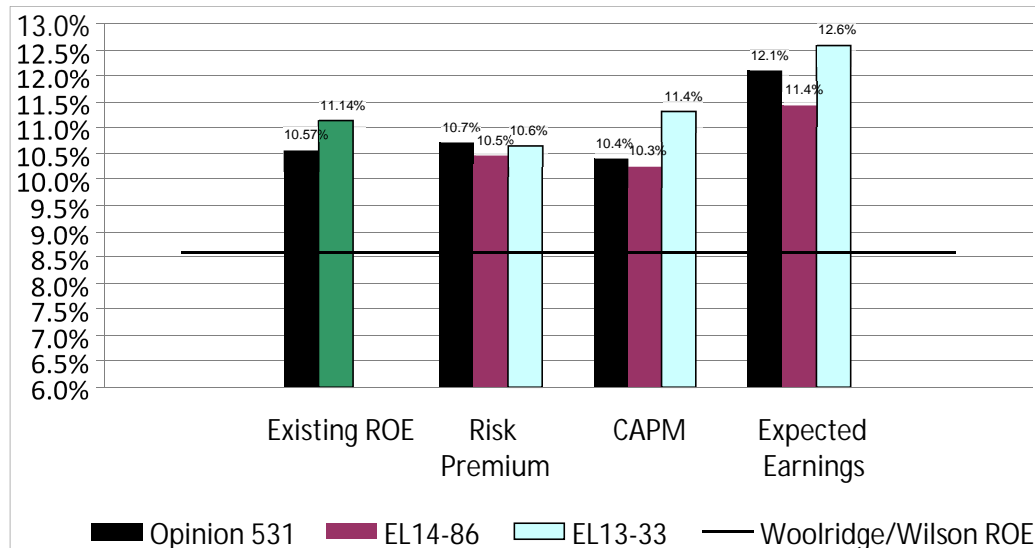
⁴¹⁷ *Id.* at 59-60 (citing Opinion No. 531 at P 114).

⁴¹⁸ *Id.* at 57.

⁴¹⁹ *Id.*

explained why the ROE recommendations of CAPs and EMCOS violate such standards.⁴²⁰ He compared the recommendations of CAPs and EMCOS to the alternative benchmark analysis used in Opinion No. 531.⁴²¹ He provided a graphical comparison of the ROE recommendation of Dr. Woolridge and Dr. Wilson for both dockets against the ROE allowed in Opinion No. 531 and against the midpoint results of the three alternative benchmark methods referenced by the Commission in Opinion No. 531:

**FIGURE NET-2
COMPARISON OF MIDPOINT ROE BENCHMARKS**



[Source: Ex. NET-1300 at 61]

Dr. Avera explained that the graph above shows that the ROEs recommended by Dr. Woolridge and Dr. Wilson are inconsistent with the results of the alternative benchmark methods relied on by the Commission, whether measured at the time of Opinion No. 531 or for the Complaint III or Complaint II periods, in addition to the ROE authorized in Opinion No. 531 itself.⁴²²

143. Dr. Avera argued that state-approved ROEs also support an ROE for the NETOs far above what the CAPs and EMCOS are recommending. He explained that the base ROEs recommended by Drs. Woolridge and Wilson for the Complaint II Period would represent some of the lowest, if not the lowest, ROEs in the country, and fall well below average returns authorized for other utilities.⁴²³ Dr. Avera alleges that of the 246 cases reported by Regulatory Research Associates (RRA) since 2010, only three ROEs fell in

⁴²⁰ *Id.* at 60.

⁴²¹ *Id.* at 60-61.

⁴²² *Id.* at 62.

⁴²³ *Id.*

the 8% to 9% range, and these values were only approved in connection with revised rate structures and/or ROE penalties.⁴²⁴

144. Dr. Avera disagreed with the various comparisons with allowed ROEs in Dr. Woolridge's testimony. He alleged that none of the statistics presented by Dr. Woolridge in any way lend credence to his 8.55% (Complaint III Period) and 8.75% (Complaint II Period) recommendations in this case.⁴²⁵ Dr. Avera also testified that it does not make sense to limit a review of allowed returns to a particular geographic region as suggested by Dr. Woolridge.⁴²⁶ Dr. Avera explained that the NETOs must compete for capital with firms across the nation and even across the world, and investors certainly do not narrow their comparison to a particular locale in evaluating their ability to earn risk-comparable returns.⁴²⁷

145. Dr. Avera explained that transparency and stability are important tenets of utility ratemaking and that the Commission has stated that it "strives to provide regulatory certainty through consistent approaches and actions."⁴²⁸ He testified that any reconsideration of the principles outlined by the Commission in Opinion No. 531 that produce a significantly lower ROE would dramatically heighten regulatory uncertainty and significantly undermine investors' confidence and willingness to supply capital.⁴²⁹

146. Dr. Avera testified that base ROE is the primary lynchpin in determining the flow of investment capital to new transmission facilities.⁴³⁰ The additional funding necessary to expand the grid will only be allocated if investors anticipate an opportunity to earn a return that is sufficient to compensate for the associated risks.⁴³¹

147. Dr. Avera testified that the existing ROE is consistent with established commission policy to support much needed new investment in electric transmission infrastructure, including in New England.⁴³² Considering the ongoing implications of anomalous capital market conditions and the results of well-accepted ROE benchmarks provides the Commission with the flexibility to ensure a reasonable end result that does not undermine its policy objectives.⁴³³

148. Dr. Avera calls Dr. Wooldridge's claims of a dramatic, fundamental shift in

⁴²⁴ *Id.* at 62-63.

⁴²⁵ *Id.* at 64.

⁴²⁶ *Id.* at 65.

⁴²⁷ *Id.*

⁴²⁸ *Id.* at 67 (citing About FERC, <http://www.ferc.gov/about.asp> (last updated Jan. 5, 2015)).

⁴²⁹ *Id.* at 68.

⁴³⁰ *Id.* at 69.

⁴³¹ *Id.*

⁴³² *Id.* at 69-70.

⁴³³ *Id.*

capital market conditions since April 2013, when the updated data considered as the basis for the Commission's findings in Docket No. EL11-66 were submitted, simplistic and unfounded.⁴³⁴ Dr. Avera testified there have been no sudden alterations to the anomalous conditions since Opinion No. 531 was issued.⁴³⁵

149. Dr. Avera testified that current capital market conditions do not provide a representative basis on which to evaluate a fair ROE because they continue to reflect the Federal Reserve's unprecedented monetary policy actions in the aftermath of the Great Recession, and are not representative of what investors expect in the future.⁴³⁶ He referred to specific aspects of the capital markets, including ongoing economic uncertainty, volatility, potential for renewed turmoil, heightened sensitivity to risk, and a push by the Federal Reserve to lower interest rates and stimulate the economy.⁴³⁷ Dr. Avera explained that prevailing capital market conditions, as reflected in the yields on triple-B utility bonds, are an anomaly when compared with historical experience over recent decades, and were so in the Complaint II Period as well.⁴³⁸

150. Dr. Avera stated that investors anticipate that interest rates will increase significantly from present levels.⁴³⁹ He presented evidenced of a clear consensus in the investment community that the cost of long-term capital will be significantly higher over the 2015-2019 period.⁴⁴⁰

151. Dr. Avera addressed the cessation of further asset purchases by the Federal Reserve and argued that it does not mark a return to "normal" capital market conditions.⁴⁴¹ He cited to the all-time high in the Federal Reserve's holdings of Treasury bonds and mortgage-backed securities, as well as policy objectives to maintain accommodative financial conditions as evidence of being far from a return to normal.⁴⁴² He argued that if there is a change in Federal Reserve policy, it would place significant upward pressure on bond yields.⁴⁴³

152. Dr. Avera discussed other evidence that current market conditions undermine the reliability of the two-step DCF results.⁴⁴⁴ He reiterated that the Commission has stressed the need to carefully evaluate DCF results against a number of well-accepted benchmarks

⁴³⁴ *Id.* at 72 (citing Ex. CAP-1 at 46-47).

⁴³⁵ *Id.*

⁴³⁶ *Id.*

⁴³⁷ *Id.*

⁴³⁸ *Id.* at 72-73.

⁴³⁹ *Id.* at 74.

⁴⁴⁰ *Id.* at 74-75.

⁴⁴¹ *Id.* at 75-77.

⁴⁴² *Id.*

⁴⁴³ *Id.*

⁴⁴⁴ *Id.* at 78.

to ensure that the *Hope* and *Bluefield* standards are met.⁴⁴⁵ Dr. Avera testified that empirical evidence demonstrates conclusively that the DCF values of Drs. Woolridge and Wilson continue to exhibit the same deviation from alternative benchmarks that led the Commission to approve an ROE from the upper end of the DCF zone in Opinion No. 531.⁴⁴⁶ He compared six-month average bond yields at the end of the record period in Complaint I with those immediately prior to the date of Opinion No. 531 and in December 2014. According to Dr. Avera, this shows that conditions are now more congruous with those prevailing during the evidentiary period in Complaint I than at the time the Commission issued Opinion No. 531.⁴⁴⁷

153. Dr. Avera testified that while it is not possible to pinpoint the exact mechanism out of the many exogenous factors related to the anomalous capital market conditions that ultimately translate into downward-biased DCF estimates, this does not absolve DCF values from critical evaluation.⁴⁴⁸ Dr. Avera challenged Dr. Woolridge's pointing to government bond yields for other developed economies where low yields on sovereign debt allegedly serving as evidence of the "new normal."⁴⁴⁹ Dr. Avera testified that while international events certainly influence the domestic economy and capital markets, the absolute level of interest rates in Japan or France is not pertinent to the evaluation of the NETOs' Existing ROE.⁴⁵⁰

Dr. Avera testified that Dr. Woolridge incorrectly insinuated that "the NETOs" or "Dr. Avera" have made claims and predictions about the future course of interest rates. He explained that neither the NETOs nor he have ever developed or presented their own forecasts of interest rates in support of a recommended ROE; rather, they have relied on objective, independent projections that are representative of widely-held expectations in the capital markets.⁴⁵¹ Dr. Avera explained that while the actual pattern of GDP growth and bond yields will invariably deviate from these forecasts, they provide an objective, well-recognized guidepost to investors' future expectations, which were the paramount consideration of the Commission on Opinion No. 531.⁴⁵²

154. Dr. Avera discredited Dr. Woolridge's "meta-study," which found that since his present-day DCF median of 8.55% is not a great deal lower than median values produced at other points in time since September 2011, the DCF results somehow reflect "a new normal."⁴⁵³ Dr. Avera argued that Dr. Woolridge's logic is faulty for two reasons. First,

⁴⁴⁵ *Id.*

⁴⁴⁶ *Id.*

⁴⁴⁷ *Id.* at 78-79.

⁴⁴⁸ *Id.* at 81.

⁴⁴⁹ *Id.* (citing Ex. CAP-1 at 46).

⁴⁵⁰ *Id.* at 82.

⁴⁵¹ *Id.*

⁴⁵² *Id.* at 83.

⁴⁵³ *Id.* at 84 (citing Ex. CAP-1 at 49).

the evolution of Complaint I, which led the Commission to conclude that anomalous conditions were affecting the results of the DCF approach, spanned the entire time period of Dr. Woolridge's "meta-study."⁴⁵⁴ Second, he stated that DCF results do not exist in a vacuum.⁴⁵⁵ Stability and accuracy are two different concepts, and Dr. Woolridge examined none of the alternative benchmarks cited by the Commission to interpret these historical DCF results.⁴⁵⁶

155. Dr. Avera addressed Dr. Woolridge's contention that there are issues associated with relying on analysts' growth projections to apply the DCF model. Dr. Avera pointed out that the complainants raised identical arguments in Complaint I and lost.⁴⁵⁷ Dr. Avera explained that in applying the DCF model to estimate the cost of equity, the only relevant growth rate is the forward-looking expectations of investors that are captured in current stock prices.⁴⁵⁸ Dr. Avera stated that hindsight is irrelevant. Earnings growth projections of security analysts provide the most frequently referenced guide to investors' views and are widely accepted in applying the DCF model.⁴⁵⁹

156. Dr. Avera disagreed with Dr. Woolridge's assertion that the appropriate growth rate in the DCF model is the dividend growth rate. Dr. Avera testified that the Commission has expressed a clear preference for projected EPS growth rates from IBES in applying the DCF model to estimate the cost of equity for electric utilities.⁴⁶⁰ Dr. Avera stated that Dr. Woolridge conducted his own investigatory study of selected high-end growth rates instead of applying the DCF approach in a manner that reflects the information available to investors and how they are likely to use the information.⁴⁶¹ Dr. Avera characterized *Yahoo! Finance* as a credible, well recognized source for the analyst growth projections that sway investors' opinion and expectations.⁴⁶²

157. Dr. Avera testified that underlying the Commission's reliance on the published IBES growth estimates is the fundamental premise that these values are referenced by investors and provide a superior guide to the expectations incorporated into current stock prices.⁴⁶³

158. Dr. Avera explained that the Commission has never required that the IBES long-term growth rates used in the DCF calculation be based on estimates provided by two

⁴⁵⁴ *Id.* at 86.

⁴⁵⁵ *Id.*

⁴⁵⁶ *Id.*

⁴⁵⁷ *Id.* at 87-88.

⁴⁵⁸ *Id.* at 88.

⁴⁵⁹ *Id.* at 89.

⁴⁶⁰ *Id.* at 89-91 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 17, 89).

⁴⁶¹ *Id.* at 91.

⁴⁶² *Id.*

⁴⁶³ *Id.* at 92-93.

analysts.⁴⁶⁴ He testified that if the number of analysts contributing to a particular growth forecast was of critical importance to investors, this data would be prominently featured, but it is not.⁴⁶⁵ Dr. Avera noted that the Commission approved reliance on growth projections based on estimates from a single analyst in Opinion No. 531.⁴⁶⁶ Contrary to Dr. Woolridge, Dr. Avera argued that the fact that more than one analyst contributed to a published growth projection does not inherently confer reliability.⁴⁶⁷

159. Dr. Avera testified that there is no basis for the Commission to supplant IBES growth rates from *Yahoo! Finance* with those from Reuters.⁴⁶⁸ He stated that *Yahoo! Finance* maintains a weekly feed of Thomson Reuters' data, including IBES growth rates, which are updated frequently.⁴⁶⁹

160. Dr. Avera identified Value Line as an alternative source of near-term earnings growth projections that would address many of Dr. Woolridge's concerns.⁴⁷⁰ He explained that Value Line growth rates provide a sound basis upon which to evaluate Dr. Woolridge's claims as to the validity of IBES growth rates, and provide an alternative DCF benchmark for purposes of evaluating a fair ROE from within the Commission's zone of reasonableness.⁴⁷¹

161. Dr. Avera testified that the Commission has previously relied on Value Line projections in applying the DCF model. He stated that the Commission has acknowledged the inherent uncertainties associated with estimating the cost of equity.⁴⁷² Instead of relying on a single source of growth rates, the Commission has recognized that the growth rate itself has a range and the Commission adds the range of growth rates to the range of dividend yields to arrive at the zone of reasonableness.⁴⁷³ Dr. Avera cited to *Southern California Edison*. He stated that the Commission expressly relied on projections from both IBES and Value Line to "frame the zone of reasonableness."⁴⁷⁴ Dr. Avera also cited to Opinion No. 531, where the Commission confirmed that there may be more than one valid source of growth rate estimates.⁴⁷⁵

⁴⁶⁴ *Id.* at 93-94.

⁴⁶⁵ *Id.* at 94.

⁴⁶⁶ *Id.* (quoting Opinion No. 531, 147 FERC ¶ 61,234).

⁴⁶⁷ *Id.* at 95.

⁴⁶⁸ *Id.* at 95-96.

⁴⁶⁹ *Id.*

⁴⁷⁰ *Id.* at 97.

⁴⁷¹ *Id.*

⁴⁷² *Id.* at 97-98 (citing *Orange & Rockland Utils.*, 44 FERC ¶ 61,153 at 61,597 (1988)).

⁴⁷³ *Id.* at 98.

⁴⁷⁴ *Id.* (citing *S. Cal. Edison Co.*, 92 FERC ¶ 61,070 at 61,263).

⁴⁷⁵ *Id.* (citing Opinion No. 531 at P 90).

211. Dr. Avera testified that, given the fact that Value Line is perhaps the most widely available source of information on common stocks, the projections of Value Line analysts provide an important guide to investors' expectations.⁴⁷⁶ He stated that the detailed quarterly reports published by Value Line for each of the firms in its electric utility industry groups provide an extensive analysis underpinning the analysts' assessment of individual EPS growth rate projections.⁴⁷⁷ Dr. Avera claimed that Value Line EPS growth rates are immune from any potential errors involved in the compilation of survey data and avoid uncertainties as to the veracity of the assumptions underlying the projected values.⁴⁷⁸ He explained that Value Line's projected EPS growth rates are updated on a scheduled basis, that Value Line has the single purpose of providing independent and unbiased investment guidance, so there is no potential for conflicts of interest that would influence the growth estimates.⁴⁷⁹ According to Dr. Avera, Value Line projections are supported by a team and reflect the views of more than one individual.⁴⁸⁰ Dr. Avera concluded that the DCF results based on Value Line growth rates provide further demonstration that Dr. Woolridge's ROE recommendations are too low to be credible, and provide additional evidence that the existing ROE falls within a reasonable range.⁴⁸¹

212. Dr. Avera testified that consideration should be given to the generally expected rise in long-term interest rates as the economy returns to a more normal pattern of growth.⁴⁸² He stated that the low end of Dr. Woolridge's DCF range was set by a cost of equity estimate of 6.34%. Dr. Avera testified that this as falls below the 6.74% utility bond yield for the 2015-2019 period.⁴⁸³ Dr. Avera stated that it is inconceivable that investors are not requiring a substantially higher rate of return for holding common stock, which is the riskiest of a utility's securities.⁴⁸⁴ Dr. Avera stated that retaining the 6.34% value provides support for adopting an ROE for the NETOs from within the upper end of the zone of reasonableness and confirms the continued reasonableness of the existing ROE.⁴⁸⁵

213. Dr. Avera testified that Dr. Woolridge's test for high-end values, should be excluded.⁴⁸⁶ Dr. Avera stated that the dispersion between a particular DCF estimate and

⁴⁷⁶ *Id.* at 99 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 102; *Kern River Gas Transmission Company*, Opinion No. 486-C, 129 FERC ¶ 61,240 at P 50 (2009)).

⁴⁷⁷ *Id.* at 100.

⁴⁷⁸ *Id.*

⁴⁷⁹ *Id.*

⁴⁸⁰ *Id.* at 100-101.

⁴⁸¹ *Id.* at 101.

⁴⁸² *Id.* at 102.

⁴⁸³ *Id.*

⁴⁸⁴ *Id.*

⁴⁸⁵ *Id.* at 102-103.

⁴⁸⁶ *Id.* (citing Ex. CAP-1 at 34).

the next lowest value is not informative. According to Dr. Avera, the question is whether the implied DCF cost of equity is so high as to “defy the test of economic logic,” and economic validity is not predicated on the absolute difference between two observations.⁴⁸⁷

214. Dr. Avera disagrees with Dr. Woolridge’s proposal to set the ROEs for the NETOs at the median of his DCF results. Dr. Avera testified that the Commission has a clear policy of referencing the midpoint value when establishing a single ROE for a diverse group of transmission-owning members of an RTO, as is the case for the NETOs. Dr. Avera cited *Midwest ISO*, where the Commission stressed that, “it is important to note that the highest and lowest values should be included in this range of reasonableness,” and observed that the midpoint “relies on the high and low values to take into account the widest range of results.”⁴⁸⁸ Dr. Avera stated that Dr. Woolridge’s reference to his 8.55% and 8.75% median values violates well-established policy and runs counter to the rationale underlying the Commission’s reference to the midpoint because it ignores the lowest and highest values making up the range.⁴⁸⁹ Dr. Avera testified that the alternative benchmarks relied on in Opinion No. 531 clearly demonstrate that the median of the two-step DCF results falls far below the ROE required to meet the *Hope* and *Bluefield* standards.⁴⁹⁰

215. Dr. Avera stated that arguments against the midpoint that hinge on the contention that this value relies on only the top and bottom numbers in the range and ignores the rest are incorrect.⁴⁹¹ Dr. Avera quoted the DC Circuit in *Canadian Association of Petroleum Producers*, “[t]he midpoint doesn’t ‘completely disregard the middle three numbers’; the highest and lowest numbers achieve their status by reference to all five numbers.”⁴⁹² Dr. Avera referred to *Public Service Commission of Kentucky*, where the Commission explained that only the midpoint emphasizes the entire range of proxy group values.⁴⁹³

217. Dr. Avera testified that Dr. Woolridge’s Ex. CAP-7 was based entirely on historical, rather than projected, rates of return. Dr. Avera considers this to be the fundamental problem associated with the approach Dr. Woolridge used to apply the CAPM. Dr. Avera testified that Dr. Woolridge’s CAPM estimate fell woefully short of investors’ current required rate of return.⁴⁹⁴

⁴⁸⁷ *Id.* at 104 (citing Ex. CAP-1 at 33).

⁴⁸⁸ *Id.* at 105 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 106 FERC ¶ 61,302 (2004)).

⁴⁸⁹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234).

⁴⁹⁰ *Id.* at 106.

⁴⁹¹ *Id.* at 107.

⁴⁹² *Id.* (citing *Canadian Ass’n of Petroleum Prods. v. FERC*, 254 F.3d 289, 298 (D.C. Cir. 2001)).

⁴⁹³ *Id.* at 108 (citing *Pub. Serv. Comm’n of Ky. v. FERC*, 397 F.3d at 1010).

⁴⁹⁴ *Id.* at 112.

218. Dr. Avera disagrees with Dr. Wilson's assertion that changes in bond yields since Opinion No. 531 justify a reduction in the NETOs ROE. He testified that the six-month average bond yields at December have changed little since the Commission issued Opinion No. 531.⁴⁹⁵ He also disagrees with Dr. Wilson's assertion that capital market conditions have fundamentally altered since Opinion No. 531 and are no longer anomalous. Dr. Avera stated that Dr. Wilson bases his opinion on unsupported views that differ from the evidence.⁴⁹⁶ Dr. Avera explained that while yields are anticipated to increase significantly over the next three to five years, present rates remain almost identical to those prevailing at the end of the record period in Complaint I, and current bond yields could hardly be characterized as "high" relative to history or expectations.

219. Dr. Avera testified that there is not a clear link between market-to-book ratios (M/B) for electric utilities and allowed rates of return.⁴⁹⁷ He explained that with M/B for most utilities above 1.0, Dr. Woolridge is suggesting that, unless book value grows rapidly, regulators should establish equity returns that will cause share prices to fall.⁴⁹⁸ Given the regulatory imperative of preserving a utility's ability to attract capital, this would be a truly nonsensical result.⁴⁹⁹ M/B is determined by investors in the stock market, and a utility would be foreclosed from attracting capital if regulators were to push M/B to 1.0 while other firms command prices well in excess of 1.0 times book value.⁵⁰⁰

220. Dr. Avera testified that adjustments based on M/B are not a common feature in applying the expected earnings approach or determining allowed ROEs for utilities. He stated that the Commission has explicitly recognized the fallacy of relying on M/B in evaluating cost of equity estimates.⁵⁰¹ Dr. Avera cited to *Orange & Rockland* and *Williston Basin* to support this.⁵⁰² Dr. Avera referred to the Opinion No. 531 proceeding, and recalled that the M/B for the proxy group was far greater than one.⁵⁰³ He concluded that then, as now, investors' required return should be evaluated based on careful consideration of the results of multiple methods and approaches, and in light of current capital market evidence.⁵⁰⁴

⁴⁹⁵ *Id.* at 122 (citing Ex. EMC-3 at 9-10).

⁴⁹⁶ *Id.* (citing Ex. EMC-3 at 26).

⁴⁹⁷ *Id.* at 124.

⁴⁹⁸ *Id.*

⁴⁹⁹ *Id.*

⁵⁰⁰ *Id.*

⁵⁰¹ *Id.* at 125 (citing *Orange & Rockland Utils., Inc.*, Initial Decision, 40 FERC ¶ 63,053 (1987); *Williston Basin Interstate Pipeline Co.*, 104 FERC ¶ 61,036 at P 52 (2003)).

⁵⁰² *Id.*

⁵⁰³ *Id.* at 126 (citing Opinion No. 531, 147 FERC ¶ 61,234).

⁵⁰⁴ *Id.*

221. Dr. Avera explained that Dr. Wilson's focus on capital structure, and the relative risk associated with debt leverage, ignores the fact that this is only one facet of a company's overall investment risk.⁵⁰⁵ Dr. Avera argued that there is no basis for his contention that the NETOs have less investment risk than the proxy group, simply because of variations in equity ratios between individual utilities.⁵⁰⁶

222. Dr. Avera explained that the considerations impacting a firm's financial and business risks undertaken by the credit rating agencies are all-encompassing.⁵⁰⁷ Dr. Avera testified that, because the net impact of the financial risks associated with a utility's capital structure is already reflected in corporate credit ratings, there is no basis for Dr. Wilson's myopic focus on this single consideration, to the exclusion of all others.⁵⁰⁸

223. Dr. Avera explained that the Commission has long established that an issuer credit rating is a reliable measure of investment risk that considers both financial and business risk.⁵⁰⁹ According to him, the credit ratings published by S&P and Moody's provide a broad, objective measure of overall investment risk that subsumes any differences in financial risks attributable to the capital structure ratios referenced by Dr. Wilson.⁵¹⁰

224. Dr. Avera testified that the NETOs common equity ratios referenced by Dr. Wilson are not, in fact, substantially higher than those of the National Group.⁵¹¹ Dr. Avera alleged that Dr. Wilson's measurement was simplistic, but that the ranges of values for each group were not dissimilar.⁵¹² Dr. Avera then reviewed the common equity ratios presented in Ex. NET-1326 and identified the capitalization ratios maintained by other utility operating companies, ranging from 37.3% to 70.7%.⁵¹³

225. Dr. Avera explained that in evaluating a fair ROE for a group of transmission owners, the Commission has recognized that there is a range of investment risks that must be considered, and Dr. Wilson's reference to average capitalization ratios ignores this important distinction.⁵¹⁴ Dr. Avera stated that, given the comparability in overall risk measures with the proxy group, there is no support for Dr. Wilson's proposed ROE haircut.⁵¹⁵

226. Finally, Dr. Avera testified that an ROE adjustment based on relative

⁵⁰⁵ *Id.*

⁵⁰⁶ *Id.*

⁵⁰⁷ *Id.* at 127.

⁵⁰⁸ *Id.*

⁵⁰⁹ *Id.* at 128 (citing *Va. Elec. and Power Co.*, 123 FERC ¶ 61,098 at P 62 (2008)).

⁵¹⁰ *Id.*

⁵¹¹ *Id.* at 129 (citing Ex. EMC-3 at 30-31).

⁵¹² *Id.*

⁵¹³ *Id.* at 129-130 (citing Ex. NET-1326).

⁵¹⁴ *Id.* at 130.

⁵¹⁵ *Id.* at 131.

capitalization would not be consistent with Commission precedent.⁵¹⁶ To support his testimony, he cited to *Kentucky West Virginia* and *Transcontinental Gas Pipeline Corp.*⁵¹⁷ In *Kentucky West Virginia*, Dr. Avera explained that the Commission stated that a utility should be considered as nearly as possibly on its own merits.⁵¹⁸ In *Transcontinental Gas Pipeline Corp.*, the Commission noted that an appropriate capital structure “can fall within a very broad range,” and concluded, “the Commission has determined that it will not continue to require that a pipeline’s equity ratio be within the range established by the proxy companies in order to use the pipeline’s own capital structure.”⁵¹⁹ He added that in none of these instances did the Commission impose an adjustment to ROE associated with the utility’s capitalization.⁵²⁰

3.2 Ms. Lapson

227. Ms. Ellen Lapson, CFA, is the founder and principal of Lapson Advisory, a division of Trade Resources Analytics LLC, of which she is a member. She was an expert financial witness on behalf of NETOs in Docket No. EL11-66 and her qualifications and testimony appear as Exhibit No. NET-1401. The basis of Ms. Lapson’s testimony is her 45 years of experience as a practitioner of securities analysis in the capital markets, specializing in utilities securities. She also relied on her own expert knowledge of U.S. financial markets and of alternative areas of investment in which the NETOs compete for investors’ dollars.

228. Ms. Lapson submitted that the recommendations of Dr. Woolridge (an 8.75% ROE for the Complaint 2 Period and an 8.55% for the Complaint 3 Period) and Dr. Wilson (an 8.65% ROE for the Complaint 2 Period and an 8.37% ROE for the Complaint 3 Period) would not satisfy the standard of *Hope*⁵²¹ or *Bluefield*⁵²² discussed by the Commission in Opinion No. 531. Ms. Lapson explained that the Commission in Opinion No. 531 found that the ROE resulting from the mid-point of the DCF model was substantially below state ROE authorizations and measures of the cost of equity estimated by various alternate benchmarks. The consequence was that the modeled results did not meet the objective of a return that would enable the utilities to attract capital.⁵²³ Ms. Lapson stated that a major theme of Opinion No. 531 was the importance of information

⁵¹⁶ *Id.*

⁵¹⁷ *Id.* (citing *Ky. W. Va. Gas. Co.*, 2 FERC ¶ 61,139 (1978); *Transcon. Gas Pipeline Corp.*, 84 FERC ¶ 61,084, *order on reh’g*, 85 FERC ¶ 61,323 (1998)).

⁵¹⁸ *Id.* (citing *Ky. W. Va.*, 2 FERC at 61,325 (quoting *Fla. Gas Transmission Co.*, 47 FPC 341 at 363 (1972))).

⁵¹⁹ *Id.* (citing *Transcon. Gas Pipeline Corp.*, 84 FERC at 61,419).

⁵²⁰ *Id.* at 132.

⁵²¹ *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (*Hope*).

⁵²² *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm’n of W. Va.*, 262 U.S. 679 (1923) (*Bluefield*).

⁵²³ Ex. NET-1400 at 7-8.

from alternative ROE benchmarks and returns authorized in state jurisdictions as a check upon the results of the DCF model.⁵²⁴ Ms. Lapson explained that, if the recommendations of Drs. Wilson or Woolridge were adopted in this proceeding, investors could obtain higher returns by investing in the equity of state-regulated utilities at lower or similar risk.⁵²⁵

229. Ms. Lapson demonstrated that Mr. Wilson employed faulty methods and assumptions in calculating an average credit rating for the NETOs as a group and that this led to his arrival at an erroneous conclusion that NETOs are less risky than his national proxy group.⁵²⁶ She cited Opinion No. 531, where the Commission enumerated the risks of electric transmission:⁵²⁷

For example, investors providing capital for electric transmission infrastructure face risks including the following: long delays in transmission siting, greater project complexity, environmental impact proceedings, requiring regulatory approval from multiple jurisdictions overseeing permits and rights of way, liquidity risk from financing projects that are large relative to the size of a balance sheet, and shorter investment history. We find that these factors increase the NETOs' risk relative to the state-regulated distribution companies.

Ms. Lapson noted that Dr. Wilson asserted the opposite, stating that electric transmission has lower business risk than his national proxy group.⁵²⁸ She testified that investors would likely lose confidence in transmission investment if the NETOs' base ROE were to drop from the 10.57% authorized in Opinion No. 531 to the levels recommended by either of Drs. Wilson and Woolridge while capital market circumstances remain unchanged since Opinion No. 531.⁵²⁹ According to Ms. Lapson, this would signal to investors that the Commission no longer seeks to attract major new transmission investment in the electric grid and such a change so soon after Opinion No. 531 would alter the appeal of investment by capital market investors in electric transmission relative to competing investment opportunities with similar or lower risk.⁵³⁰ Additionally, Ms. Lapson stated that if the base ROE is suppressed as a consequence of a capital market anomaly that affects the inputs to the DCF model, it would harm the NETOs' financial strength and credit-worthiness by forcing them to fund a larger share of their capital

⁵²⁴ *Id.* at 8.

⁵²⁵ *Id.*

⁵²⁶ *Id.*

⁵²⁷ Opinion No. 531 at P 149 (emphasis added).

⁵²⁸ *Id.* at 9 (citing Ex. EMC-1 at 20-21).

⁵²⁹ *Id.* at 10.

⁵³⁰ *Id.*

growth with external funding sources while at the same time lowering their financial ratios used in credit rating and fixed income analyses.⁵³¹

230. Ms. Lapson took issue with Dr. Woolridge's suggestion that the reduction of the unemployment rate and a purported increase in the ten-year Treasury yield is evidence that the financial markets have returned to a normal condition.⁵³² She cited his direct testimony:⁵³³

The conditions that the Commission found to be anomalous based on the record in the Opinion No. 531 proceeding are no longer present. The DCF study period relied upon in Opinion No. 531 consisted of the last quarter of 2012 and the first quarter of 2013. During that period, interest rates temporarily dropped to levels not seen since the 1940s. Since that time, the economy has continued to grow and unemployment, which was above 8.0% for most of 2012, is now at 5.8%. Interest rates, measured by the ten-year Treasury yield, bottomed out at 1.5% in 2012. Today, the ten-year Treasury yield has increased to about 2.2%.

Ms. Lapson noted that, in fact, the ten-year Treasury yield is currently below 2%, which is an indicator that the financial market environment is quiet similar to that of late 2012 to early 2013.⁵³⁴ Additionally, while Dr. Woolridge cites to the reduction in the unemployment rate as a favorable sign, Ms. Lapson explained that neither the NETOs nor the Commission stated that high unemployment was evidence of a capital market anomaly, nor was it cited as a factor in the Commission's decision in Opinion No. 531.⁵³⁵ Ms. Lapson contradicted Dr. Wilson's assertion that there is no anomaly because persistent low costs of capital have become the new standard. She stated that the passage of time does not turn the anomalous market conditions into a new standard and that soaring equity values in a period characterized by slow growth profits in the U.S. and even more sluggish conditions in the rest of the world is yet more evidence of a market anomaly resulting from highly unusual and unprecedented monetary policy actions by the Federal Reserve.⁵³⁶

231. Ms. Lapson identified U.S. Treasury and Federal Reserve operations over the last few years as the source of the unprecedented monetary circumstances.⁵³⁷ She explained that, in 2009, in order to rescue the banking system from the effects of a financial crisis and stimulate a recessionary economy, the Fed began buying long-term bonds in a

⁵³¹ *Id.* at 10-11.

⁵³² *Id.* at 12.

⁵³³ Ex. CAP-1 at 46.

⁵³⁴ Ex. NET-1400 at 12 (citing Ex. NET-1402).

⁵³⁵ *Id.* at 12-13.

⁵³⁶ *Id.* at 13.

⁵³⁷ *Id.* at 14.

program it called Quantitative Easing.⁵³⁸ After its first round of Quantitative Easing, the Fed introduced a second round (QE2) to foster economic recovery, but the economy was slow to respond to this stimulus.⁵³⁹ Then, in September 2012, the U.S. Federal Reserve initiated its third and largest program of buying long-term U.S. Treasury securities and mortgage-backed securities by means of open market purchases from investors (QE3).⁵⁴⁰ The Fed's bond purchases from 2009 through 2014 are of unprecedented magnitude, and entirely exceptional from any historical perspective.⁵⁴¹ From October 2012 through December 2013, the U.S. government purchased from the markets \$85 billion per month of debt instruments.⁵⁴² Then in January 2014 the Federal Reserve trimmed its purchases to \$75 billion of securities; in February and March 2014, the Federal Reserve's purchases totaled \$65 billion per month; in April 2014, \$55 billion; and in May and June 2014, \$45 billion per month.⁵⁴³ As 2014 progressed, the Federal Reserve reduced its monthly purchases of debt securities, until it concluded such purchases at the end of October 2014 after 25 months.⁵⁴⁴ QE3 purchases were in active operation throughout the Complaint 2 Period (January 2013-March 2014).⁵⁴⁵ Total purchases of U.S. Treasury securities and mortgage-backed securities under QE3 totaled approximately \$1.8 trillion.⁵⁴⁶ These Quantitative Easing 3 bond purchases are shown in the table below.⁵⁴⁷

[This space is intentionally left blank]

⁵³⁸ *Id.*

⁵³⁹ *Id.*

⁵⁴⁰ *Id.*

⁵⁴¹ *Id.*

⁵⁴² *Id.* at 14-15.

⁵⁴³ *Id.* at 15.

⁵⁴⁴ *Id.*

⁵⁴⁵ *Id.*

⁵⁴⁶ *Id.*

⁵⁴⁷ *Id.* at 16.

Table 1: Quantitative Easing 3 Bond Purchases**Debt Instruments Purchased In Quantitative Easing 3**

	U.S. Dollars Billions			
	US Treasury	Mortgage	Monthly	Aggregate
	Notes	Backed Securities*	Total	Amount
Sep-12	45	40	85	85
Oct-12	45	40	85	170
Nov-12	45	40	85	255
Dec-12	45	40	85	340
Jan-13	45	40	85	425
Feb-13	45	40	85	510
Mar-13	45	40	85	595
Apr-13	45	40	85	680
May-13	45	40	85	765
Jun-13	45	40	85	850
Jul-13	45	40	85	935
Aug-13	45	40	85	1,020
Sep-13	45	40	85	1,105
Oct-13	45	40	85	1,190
Nov-13	45	40	85	1,275
Dec-13	45	40	85	1,360
Jan-14	45	30	75	1,435
Feb-14	35	30	65	1,500
Mar-14	35	30	65	1,565
Apr-14	30	25	55	1,620
May-14	25	20	45	1,665
Jun-14	25	20	45	1,710
Jul-14	15	10	25	1,735
Aug-14	15	10	25	1,760
Sep-14	15	10	25	1,785
Oct-14	10	5	15	1,800

Source: Federal Reserve Board of NY press releases.

232. Even after the Federal Reserve ended its bond-buying program in October, 2014, Ms. Lapson identified at least three other accommodative monetary programs and policies of the Federal Reserve that cause continuing effects on money and financial markets. First, massive holdings of U.S. Treasury bond and mortgage-backed securities remain on the books of the Federal Reserve, accounted for on the Federal Reserve's books as "Securities Held Outright" that amounted to \$4.25 trillion at year-end 2014 and

currently.⁵⁴⁸ Second, there is as yet no program to reduce that balance of bonds held by the Federal Reserve and in fact it is the Fed's explicit policy to continue making new open market bond purchases to redeploy any interest and principal payments the Fed receives on the \$4.25 trillion portfolio in new open-market bond purchases.⁵⁴⁹ Third, the Federal Reserve has suppressed short-term rates in the U.S. to zero or near zero by means of the Fed's "target rate," which it is maintaining at the 0-0.25% at the present time.⁵⁵⁰

233. Ms. Lapson stated that it is not possible that, with the passage of time, the balances of bonds purchased by the Federal Reserve and held on the Fed's books are "normal" or a "new normal."⁵⁵¹ She explained that the effect of open market purchases of so great a quantity of debt securities that are then held on the Fed's portfolio has been to inject into the U.S. economy more money than is needed for consumption or production.⁵⁵² According to Ms. Lapson, investors who sold bonds to the Fed received money that to a large part was recycled into bidding up the remaining supplies of financial assets, rather than into consumption or production.⁵⁵³ By removing so many financial assets from the trading market, the market prices of bonds were bid up, resulting in declining yields throughout the market.⁵⁵⁴ Ms. Lapson put the Fed's bond holdings in perspective: at the end of 2008, securities held outright by the Federal Reserve amounted to 3.4% of the GDP, and by mid-2014 were 23.7% of GDP.⁵⁵⁵

234. Ms. Lapson described the effects of the Federal Reserve's stimulus programs on the market prices and yields of debt and equity securities. She explained that the low target range of 0 to 0.25% that the Fed has maintained for the federal funds rate has suppressed all short-term interest rates such that these rates are at or near zero.⁵⁵⁶ She further explained that the Fed's massive purchases of U.S. Treasury instruments and mortgage-backed securities have lowered long-term rates and driven up the prices of debt securities.⁵⁵⁷ According to Ms. Lapson, the \$4.25 trillion holdings of debt securities on the Federal Reserve balance sheet has lowered the supply of debt available to the market, driven down yields and elevated the prices of all types of debt.⁵⁵⁸ Furthermore, as yields dropped in the bond markets, the prices of dividend-paying equities rose as investors

⁵⁴⁸ *Id.* at 17.

⁵⁴⁹ *Id.*

⁵⁵⁰ *Id.*

⁵⁵¹ *Id.* at 18.

⁵⁵² *Id.* at 19.

⁵⁵³ *Id.*

⁵⁵⁴ *Id.*

⁵⁵⁵ *Id.* (citing Federal Reserve FRB H.4.1 balance as of final week of 2008 and second quarter of 2014; U.S. Bureau of Economic Analysis GDP report for the fourth quarter of 2008 and second quarter of 2014).

⁵⁵⁶ *Id.*

⁵⁵⁷ *Id.* at 20.

⁵⁵⁸ *Id.*

sought yields.⁵⁵⁹

235. Ms. Lapson testified that the Federal Reserve does not consider its current massive holdings of bonds and suppression of short-term interest rates a normal capital market condition that it will perpetuate.⁵⁶⁰ She cited policy guidance from the Federal Reserve's Open Market Committee (FOMC) published in September 2014 makes it explicit that the Fed does not view the status of monetary affairs as normal and that the FOMC intends to normalize the capital markets in the future at a still –unspecified future date.⁵⁶¹ In addition, Ms. Lapson cited the Fed press release titled “Policy Normalization Principles and Plans”, which reveals that the FOMC will take future action to normalize financial markets through a sequence of steps.⁵⁶² These steps include first raising the federal funds target rate (and thus freeing short-term interest rates) and subsequently reducing and eventually eliminating the balance of securities held by the Fed by ceasing to invest repayments of principal in the securities portfolio.⁵⁶³

The Committee intends to reduce the Federal Reserve's securities holdings in a gradual and predictable manner primarily by ceasing to reinvest repayments of principal on securities held in the [System Open Market Account].

- The Committee expects to cease or commence phasing out reinvestments after it begins increasing the target range for the federal funds rate; the timing will depend on how economic and financial conditions and the economic outlook evolve.
- The Committee currently does not anticipate selling agency mortgage-backed securities as part of the normalization process, although limited sales might be warranted in the longer run to reduce or eliminate residual holdings. The timing and pace of any sales would be communicated to the public in advance.

The Committee intends that the Federal Reserve will, in the longer run, hold no more securities than necessary to implement monetary policy efficiently and effectively, and that it will hold primarily Treasury securities, thereby minimizing the effect of Federal Reserve holdings on the allocation of credit across sectors of the economy.”

236. Ms. Lapson explained that global events since 2009 have set off successive and

⁵⁵⁹ *Id.*

⁵⁶⁰ *Id.*

⁵⁶¹ *Id.*

⁵⁶² *Id.* at 20-21.

⁵⁶³ *Id.* at 21 (citing Federal Reserve Press Release, Sept. 17, 2014, *Policy Normalization Principles and Plans*, <http://www.federalreserve.gov/newsevents/press/monetary/20140917c.htm>).

repeated rounds of “flights to safety” in which investors en masse flipped from risk-accepting investments into risk-averse flights-to-safety, embracing defensive, dividend-yielding securities.⁵⁶⁴ She opined that this phenomenon has exacerbated the anomaly in U.S. capital markets.⁵⁶⁵

237. Ms. Lapson testified that the financial markets in the two relevant compliance periods are unchanged from the conditions that prevailed in the period covered by Opinion No. 531, as evidenced by very little variation in long-term rates over the three reference periods and even less variation in short-term rates.⁵⁶⁶ She stated that the continuing suppression of short-term rates is a striking feature in the current economic climate.⁵⁶⁷ Ms. Lapson presented the following table to illustrate these points:⁵⁶⁸

Table 2: Long-Term and Short-Term Interest Rates

Period	Interest Yields		
	U.S. Treasury 10-Years	Long-Term Moody's Baa Corp.	Short-Term 30-day T-Bills
Docket No. EL11-66			
Oct. 1, 2012 - March 31, 2013 (Avg.)	1.85%	5.00%	0.06%
Complaint 2 (Docket No. EL13-33)			
Dec. 27, 2012 – March 27, 2014(Avg.)	2.42%	5.10%	0.04%
Complaint 3 (Docket No. EL14-86)			
July 31, 2014 – current (Avg.)	2.29%	4.70%	0.02%
January 2015 (Avg.)	1.89%	4.46%	0.02%
Source: Federal Reserve Board, FRB H15-4			

238. Ms. Lapson testified that the capital market environment in the Complaint II and Complaint III periods has been affected by unprecedented monetary stimulus; that these extraordinary market conditions require users of financial models to exercise caution and to question the performance of their models in order to avoid falling into error; and that, in the case of the FERC DCF model, the calculated zone of reasonableness and the resulting median or midpoint appear to be suppressed by the presence of extremely low

⁵⁶⁴ *Id.* at 22-23.

⁵⁶⁵ *Id.* at 23.

⁵⁶⁶ *Id.* at 24.

⁵⁶⁷ *Id.*

⁵⁶⁸ *Id.* at 25.

DCF values, just as the Commission concluded in Opinion No. 531.⁵⁶⁹

239. Ms. Lapson disagreed with Dr. Woolridge's views that prevailing monetary and financial conditions are normal consequences of a multi-decade slowing down of the rate of global growth combined with a hypothetical "Global Savings Glut" described in a speech by Ben Bernanke in 2005.⁵⁷⁰ She stated that Dr. Woolridge offered these two as an explanation for ultra-low long-term interest rates and he hypothesized that these factors will produce low growth and low inflation conditions that will persist for the next six decades.⁵⁷¹ Ms. Lapson asserted that these two hypotheses are unproven and fail to take into account the incontrovertible evidence of a massive exercise of U.S. monetary policy that has strong influence over long-term and short-term interest rates.⁵⁷² She noted that Dr. Woolridge later switched horses, dropping his argument about the coming decades of decelerating economic activity and now promoting the theory that the rising U.S. equity market is a sign that investors foresee future economic growth and a robust economy ahead.⁵⁷³ In Ms. Lapson's view, it is far more likely that the robust U.S. equity prices are a product of anomalous financial market conditions produced by six years of hyper-stimulative U.S. monetary policy and unnaturally low short-term interest rates.⁵⁷⁴

240. Ms. Lapson identified several flows in Drs. Woolridge's and Wilson's assignment of credit ratings to the NETOs. She noted that Dr. Woolridge based his assertion that the NETOs are less risky than his national proxy group upon an exhibit in which he assigns ordinal point scores corresponding to the published credit ratings of the NETOs.⁵⁷⁵ The heart of the problem, according to Ms. Lapson, is that the NETOs include entities that do not have Moody's and S&P's credit ratings. This is not true of the national proxy group, since one of the selection criteria for the choice of utilities in the proxy group is that their published credit ratings fall within a specified range.⁵⁷⁶ Ms. Lapson explained that while an average can readily be calculated for the rated entities in the proxy group using Dr. Woolridge's point-scoring method in Ex. CAP-5 at 7, determining the average credit rating of the NETOs is more challenging.⁵⁷⁷ In calculating purported average ratings for the NETOs, Ms. Lapson identified two misleading or mistaken practices that Dr. Woolridge applied: (1) in some cases, he assigned to an unrated subsidiary the same rating as its parent, even though the parent has not issued a general guarantee of the obligations of its subsidiary; and (2) in other cases he simply eliminated the unrated

⁵⁶⁹ *Id.* at 26.

⁵⁷⁰ *Id.* at 27 (citing Ex. CAP-1 at 7-10).

⁵⁷¹ *Id.* (citing Ex. CAP-1 at 7-10).

⁵⁷² *Id.*

⁵⁷³ *Id.* at 27-28 (citing Ex. CAP-1 at 48).

⁵⁷⁴ *Id.* at 28.

⁵⁷⁵ *Id.* at 29 (citing Ex. CAP-1 at 18-21 and Ex. CAP-5 at 7).

⁵⁷⁶ *Id.*

⁵⁷⁷ *Id.*

entities from the calculation of the average.⁵⁷⁸ Ms. Lapson testified that no rational fixed income investment analyst or lender in the United States would presume that an unrated entity shares the credit rating of its parent absent the knowledge of a general guarantee issued by the parent, nor assume the unrated entities in a portfolio automatically possess the equivalent credit rating of the rated entities.⁵⁷⁹ Many internal portfolio management systems presume that unrated entities are to be treated as if speculative (sub-investment grade) quality.⁵⁸⁰ However, given that regulated electric utilities tend to be rated within the investment grade category, Ms. Lapson applied a more favorable assumption for the unrated NETOs and assigned them proxy ratings of BBB- and Baa3.⁵⁸¹ In Exhibit NET-1403, Ms. Lapson corrected Dr. Woolridge's average ratings for the NETOs and explained the reasons for each of her adjustments.⁵⁸² As a result of these adjustments, the adjusted average credit score of the NETOs is 30% higher (denoting lower credit quality than in Exhibit CAP-5.7) for S&P scores, and 30% higher for Moody's scores.⁵⁸³ Ms. Lapson testified after correcting Dr. Woolridge's errors and omissions, the average S&P credit score of the NETOs is equivalent to S&P's BBB+, the same as the Woolridge National Proxy Group.⁵⁸⁴ Similarly, the adjusted average Moody's score for the NETOs is equivalent to Baa1, and that for the Woolridge National Proxy Group is also equivalent to Baa1.⁵⁸⁵ Ms. Lapson concludes that this data disproves Dr. Woolridge's assertion that the NETOs are of lower risk than the proxy group.⁵⁸⁶

241. Ms. Lapson strongly disagreed with Dr. Woolridge's statement that the authorized ROEs of natural gas distribution utilities or of electric distribution utilities comprise the appropriate comparison group for the NETO companies "since these ROEs exclude the risks associated with generation."⁵⁸⁷ She believes that this assertion runs directly counter to the Commission's explicit statement in its Opinion No. 531 that NETOs have increased risk relative to state-regulated distribution companies.⁵⁸⁸

242. Ms. Lapson also strongly disagreed with Dr. Wilson's argument that "the NETO's business risk is limited to transmission investments, whose return and recovery is virtually guaranteed by FERC rate regulation," and she thought it clear that Dr. Wilson failed to give any consideration to the special risks of electric transmission that the

⁵⁷⁸ *Id.* at 29-30.

⁵⁷⁹ *Id.* at 30.

⁵⁸⁰ *Id.*

⁵⁸¹ *Id.* at 30-31.

⁵⁸² *Id.* at 31.

⁵⁸³ *Id.*

⁵⁸⁴ *Id.* at 32.

⁵⁸⁵ *Id.*

⁵⁸⁶ *Id.*

⁵⁸⁷ *Id.* at 33 (citing Ex. CAP-1 at 52).

⁵⁸⁸ *Id.* (citing Opinion No. 531 at P 149).

Commission addressed in Opinion No. 531 at P 49.⁵⁸⁹ She also found his argument that higher equity capitalization of the NETOs requires adjustment via a lower ROE to fly in the face of logic.⁵⁹⁰ The capital structure of a NETO is one of the elements along with the business fundamentals of the company that enters into forming the entity's credit rating, if the NETO is a rated entity.⁵⁹¹ If it is not a rated entity, then the company may need higher equity capitalization in order to satisfy its creditors or to offset other risks, such as small size and concentration risk.⁵⁹²

243. Ms. Lapson testified that the base ROEs recommended by Drs. Woolridge and Wilson are too low to attract investors to invest capital in the electric transmission sector.⁵⁹³ For the first period under review, Dr. Woolridge recommended a base ROE of 8.75% and Dr. Wilson recommended 8.65%.⁵⁹⁴ For the later period and prospectively, Dr. Woolridge recommended a base ROE of 8.55% and Dr. Wilson recommended 8.37%.⁵⁹⁵ Ms. Lapson predicted that should an ROE consistent with those recommendations be established by the Commission, then investment in the NETOs' transmission projects would be discouraged and it would also have a chilling effect on all FERC-jurisdictional transmission entities.⁵⁹⁶ She also thought it important that the Commission was troubled by the proposed 175 basis point decrease in Opinion No. 531 whereas here Drs. Wilson and Woolridge are proposing a decrease in the range of 182 to 220 basis points.⁵⁹⁷ Coming so soon on the heels of Opinion No. 531, investors would react with surprise and alarm if the Commission determined a base ROE consistent with either Drs. Woolridge's or Wilson's recommendations.⁵⁹⁸

244. Ms. Lapson opined that adopting the base ROEs proposed by Drs. Wilson and Woolridge would put transmission build at a competitive disadvantage in the capital market in comparison with investments in integrated electric utilities.⁵⁹⁹ She stated that the recommended base ROEs of Drs. Woolridge and Wilson are significantly below the lowest base ROE determinations over the eight prior quarters for integrated electric utilities in state jurisdictions.⁶⁰⁰ Ms. Lapson performed an analysis using data on allowed ROEs published by SNL Financial LP's Regulatory Research Associates (RRA) in order

⁵⁸⁹ *Id.* at 34 (citing Ex. EMC-1 at 20-21).

⁵⁹⁰ *Id.*

⁵⁹¹ *Id.*

⁵⁹² *Id.*

⁵⁹³ *Id.* at 35.

⁵⁹⁴ *Id.*

⁵⁹⁵ *Id.*

⁵⁹⁶ *Id.* at 36.

⁵⁹⁷ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 150).

⁵⁹⁸ *Id.*

⁵⁹⁹ *Id.* at 36-37.

⁶⁰⁰ *Id.*

to ascertain state jurisdictional base ROE determinations for electric utilities.⁶⁰¹

245. Ms. Lapson testified that FERC relies on the results of state ROE determinations as a basis for its own ROE determinations.⁶⁰² She pointed out that while the Commission has repeatedly affirmed the use of a DCF model for determining the ROE, in Opinion No. 531 it stated that the substantial difference between state ROE determinations and the mid-point of the modeled DCF range called into question the sole reliance on the DCF results without adjustment during a period of “anomalous” conditions.⁶⁰³ In other words, a significant discrepancy between state-authorized ROEs and the results of the working of the DCF model is in itself a form of evidence that capital markets are anomalous.⁶⁰⁴

246. Ms. Lapson testified that evidence from state-authorized returns for companies in a related industry group is an important source of information. She explained that the Commission should give weight to this information when setting the ROE within the range of reasonableness because the Commission explained in Opinion No. 531 that its rate determinations are guided by the Supreme Court’s decisions in the *Hope* and *Bluefield* cases to allow returns on investment capital that are comparable to returns available to investors in other businesses of similar risk.⁶⁰⁵ Furthermore, Ms. Lapson stated that investors are clearly aware of the returns authorized by state regulatory commissions and transmission owners must compete for capital in the marketplace against other types of utility investments as well as against the entire range of the capital markets.⁶⁰⁶

247. In order to perform her analysis of state ROE determinations, Ms. Lapson captured only cases in which RRA identified an ROE finding.⁶⁰⁷ She viewed those orders to see if any incentives or penalties were identified in the rate order and then separated the total ROE determination into a base ROE and incentive adders or penalties, if applicable.⁶⁰⁸ Ms. Lapson chose an eight-quarter span to correspond to each of the review periods in this proceeding because she believes that to be the minimum sample size to get a good representation of the national trends and a reasonably broad representation of state commissions.⁶⁰⁹ She considered integrated electric utilities as the most appropriate group for the comparison of state-authorized ROEs because several of the risks for electric transmission utilities noted by the Commission in Order No. 531 have clear parallels in

⁶⁰¹ *Id.* at 37.

⁶⁰² *Id.*

⁶⁰³ *Id.* at 37-38 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 148).

⁶⁰⁴ *Id.* at 38.

⁶⁰⁵ *Id.*

⁶⁰⁶ *Id.*

⁶⁰⁷ *Id.* at 39.

⁶⁰⁸ *Id.*

⁶⁰⁹ *Id.* at 39-40.

the electric power generation activities of integrated electric utilities.⁶¹⁰ Concerning the state ROE determinations in the two periods of the study, Ms. Lapson found that the range of authorized base ROEs for the integrated electric utilities group in the Complaint II Period to be 9.25%-10.95%⁶¹¹ and in the Complaint III Period to be 9.5%-10.95%.⁶¹² She noted that Dr. Woolridge's recommended ROE of 8.75% for the Complaint II Period is 50 basis points below the lowest ROE decision in any state jurisdiction in that period, and his recommendation of an 8.55% ROE for the Complaint III Period is 95 basis points below the lowest ROE decision in that period.⁶¹³ Additionally, Dr. Wilson's ROE recommendations resulted in a discrepancy of 60 basis points between his recommended ROE for the Complaint II Period and the lowest state ROE determination in the relevant 24 months and a 113 basis point discrepancy for the Complaint III Period.⁶¹⁴ Ms. Lapson considers both Drs. Wilson's and Woolridge's ROEs dramatically below the central tendency in the state ROE decisions in both Complaint Periods.⁶¹⁵

248. When Ms. Lapson included both integrated electric utilities and distribution-only electric utilities, there were 101 decisions in the Complaint II Period for which ROEs are reported, and 41 jurisdictions represented.⁶¹⁶ The range of the base ROEs in this sample was 8.72% to 10.95% and as a group, the distribution-only electric utilities achieved lower ROEs than those observed in the integrated utilities plus intrastate transmission sector.⁶¹⁷ Even though distribution utilities are not considered by the Commission as a close proxy for electric transmission investment, the overall conclusion remained the same: the ROE recommended by Dr. Wilson for the Complaint II Period is below 100% of the base ROE determinations in the larger All Electrics group and Dr. Woolridge's recommended ROE is lower than 98% of the base ROEs in the All Electrics group.⁶¹⁸ In the Complaint II Period, 71% of the state ROE determinations in the All Electric Utilities group are greater than or equal to 9.75%, and 50% are greater than or equal to 10.0%.⁶¹⁹ Exhibit ENT-1404 at page 2 illustrates graphically that the central tendency of the distribution ROEs authorized by state commissions in the Complaint II Period is substantially higher than the recommended ROEs of Drs. Woolridge and Wilson.⁶²⁰

249. Ms. Lapson's results for the All Electrics group in the Complaint III period are shown in Exhibit NET-1404 page 4. There are 86 state ROE determinations in the

⁶¹⁰ *Id.* at 42.

⁶¹¹ Ex. NET-1404 at 1.

⁶¹² Ex. NET-1400 at 43 (citing Ex. NET-1404 at 3).

⁶¹³ *Id.* at 43-44.

⁶¹⁴ *Id.* at 44.

⁶¹⁵ *Id.*

⁶¹⁶ *Id.* (citing Ex. NET-1404 at 2).

⁶¹⁷ *Id.*

⁶¹⁸ *Id.* at 45.

⁶¹⁹ *Id.*

⁶²⁰ *Id.*

Complaint III Period, and 100% of them are higher than the base ROE recommendations of both Drs. Woolridge and Wilson.⁶²¹ The recommended ROEs of the Complainants and EMCOS are 17 and 35 basis points below the two lowest state ROE determinations on the chart, and the two 8.72% ROEs discussed are both decisions by the Illinois Commerce Commission that result from a legislated formula ROE that mandates the ROE at a fixed 580 basis point spread over the long-term US Treasury Rate. Those two ROE decisions were supplanted on December 10, 2014 by the determination of 9.25% ROEs.⁶²² Thus, the discrepancy between the ROE determinations of Drs. Woolridge and Wilson relative to the ROE determinations in state jurisdictions appears to be increasing in the more contemporaneous period.⁶²³

250. In her analysis of state-jurisdictional ROE decisions, Ms. Lapson included all ROE decisions, including those in which the order contained incentives or penalties.⁶²⁴ She divided each ROE decision reported by RRA into two components: the base ROE, and any ROE incentives or penalties.⁶²⁵ This enabled her to focus on the base ROE, which she thought appropriate to use in the analysis cases in which an ROE was reported because the NETOs earn both a base ROE and ROE incentive adders relating to specific electric transmission assets.⁶²⁶ It is also consistent to include orders by state commissions that similarly contain incentive adders.⁶²⁷

251. Ms. Lapson replaced the ROE determinations for several Virginia Power projects, all bearing a base ROE of 10.40%, with a single ROE observation of 10.40% and similarly replaced several Virginia Power projects all bearing base ROEs of 10.0% with a single base ROE observation of 10.0% in the state ROE analysis she showed in Exhibit NET-1404 page 5.⁶²⁸ The purpose of this adjustment was to avoid over-representation of decisions by the Virginia Corporation Commission relative to other state commissions.⁶²⁹

252. Ms. Lapson summarized her findings regarding the integrated utilities and All Electrics groups for the Complaint 2 and Complaint 3 periods in Table 6 below.⁶³⁰

⁶²¹ *Id.*

⁶²² *Id.* at 44 n.27.

⁶²³ *Id.* at 46.

⁶²⁴ *Id.*

⁶²⁵ *Id.*

⁶²⁶ *Id.*

⁶²⁷ *Id.* at 46-47.

⁶²⁸ *Id.* at 47.

⁶²⁹ *Id.*

⁶³⁰ *Id.* at 49.

Table 6: Summary of State ROE Decisions

Summary of State ROE Decisions							
Complaint			Quant. (a)	Base ROE Range %	Mid- point %	Base ROE Frequency	
Period	Group					≥ 10%	≥ 9.75%
2	Integ. Elec.	Reported	76	9.25 - 10.95	10.10	61%	80%
2	Integ. Elec.	Adj. (b)	70	9.25 - 10.95	10.10	57%	79%
2	All Elec.	Reported	101	8.72 - 10.95	9.84	50%	71%
2	All Elec.	Adj. (b)	95	8.72 - 10.95	9.84	46%	69%
3	Integ. Elec.	Reported	64	9.50 - 10.95	10.23	53%	76%
3	Integ. Elec.	Adj. (b)	57	9.50 - 10.95	10.23	47%	74%
3	All Elec.	Reported	86	8.72 - 10.95	9.84	41%	64%
3	All Elec.	Adj. (b)	79	8.72 - 10.95	9.84	35%	61%

Notes:

Integ.Elec. = Integrated Electric group, including 3 Texas intrastate transmission utilities

All Electrics includes Integrated Electric plus Distribution Only Electrics

(a) Quantity = Number of observations of base ROE decisions

(b) Adjusted to compress multiple VA incentive ROE decisions (Ex. NET-1404, page 5)

Sources: Lapsen Advisory; SNL Financial LLC

253. Ms. Lapsen testified that, according to *Hope* and *Bluefield*, a just and reasonable return is one that allows the utility to maintain itself in sound financial condition.⁶³¹ The base ROE provides an important stream of cash flow to the NETOs and this is a significant source of funding available in capital projects.⁶³² Ms. Lapsen testified that, if the base ROE were to fall to the levels recommended by Drs. Wilson and Woolridge, the NETOs would have to fund a larger share of their capital spending with external funding sources, which would lower the cash flow financial ratios used in credit rating and fixed income analyses.⁶³³ This would make it more difficult for the utilities to maintain favorable credit ratings and lead investors to conclude that investment in electric transmission is not able to earn an ROE that is commensurate with its risks and uncertainties.⁶³⁴ Furthermore, they would infer that although investment in electric transmission assets requires companies to commit capital for 40 years, the returns on equity authorized by the Commission can swing very radically over short periods of time.⁶³⁵

⁶³¹ *Id.* at 50.

⁶³² *Id.*

⁶³³ *Id.* at 51.

⁶³⁴ *Id.*

⁶³⁵ *Id.*

4. Staff Direct and Answering Testimony

254. Staff sponsored the testimony of Ms. Sabina Joe, who is employed by the Federal Energy Regulatory Commission (“FERC” or “Commission”) as an Energy Industry Analyst in the Office of Administrative Litigation. Her specialty is as a Financial Analyst with a focus on electric rates. Ms. Joe has an M.B.A. in Corporate Finance *with Distinction* and she testified as the Trial Staff financial expert witness in Docket No. EL11-66-001.

255. Ms. Joe explained that the Commission’s Base ROE determinations in this proceeding will apply to all Local Network Services (LNS), Regional Network Service (RNS), and various interstate “incentive transmission projects” owned by the 24 Participating Transmission Owners (“PTOs” or “TOs”) in the six-state ISO-NE Regional Transmission Organization (“RTO”).⁶³⁶ LNS service (generally below 69 kV) receives the Base ROE without any adjustment by basis point adders.⁶³⁷ RNS transmission (generally above 69 kV) receives a total ROE equal to the Base ROE plus a 50 basis point adder for TO participation in the RTO.⁶³⁸ Various existing major interstate incentive transmission projects additionally receive “incentive adders” ranging from 150 basis points to 175 basis points above the Base ROE.⁶³⁹

256. Ms. Joe stated that the current effective Base ROE is 10.57 percent and the Maximum ROE is 11.74 percent as established effective October 16, 2014 in Opinion No. 531.⁶⁴⁰ The previous Base ROE was 11.14 percent established on October 31, 2006 in Opinion No. 489.⁶⁴¹

257. Ms. Joe testified that capital market conditions in this proceeding support placement of a Base ROE at the midpoint of the DCF results.⁶⁴² She opined that favorable equity capital market and debt capital market conditions prevailed for electric utilities during both the complaint periods, and mark a significant change from 2012 and early 2013 debt capital market conditions considered in the record of Complaint I.⁶⁴³ Ms. Joe testified that the record of Docket No. EL11-66 did not consider equity capital market

⁶³⁶ Ex. S-1 at 3.

⁶³⁷ *Id.* (citing *ISO New England Inc., et al.* 106 FERC ¶ 61,280 at P 247 (2004)).

⁶³⁸ *Id.*

⁶³⁹ *Id.*

⁶⁴⁰ *Id.* at 4 (citing Opinion No. 531, 147 FERC ¶ 61,234 (2014); Opinion No. 531-A, 149 FERC ¶ 61,032 (2014); Opinion No. 531-B, *reh’g denied*, 150 FERC ¶ 61,165 (2015)).

⁶⁴¹ Ex. S-1 at 4 (citing Opinion No. 489, *Bangor Hydro-Elec. Co. et al.*, 117 FERC ¶ 61,129 (2006)).

⁶⁴² *Id.* at 12.

⁶⁴³ *Id.*

conditions but rather focused on interest rates in the debt capital markets.⁶⁴⁴ She explained that in 2014 and January, 2015, energy utilities spectacularly outperformed the broad equity market indices including the Standard & Poor's 500 ("S&P 500") Index, the Dow Jones Industrial Average Index ("DJIA"), and the NASDAQ.⁶⁴⁵ For example, Ms. Joe stated that SNL Energy reports its Regulatory Research Associates (RRA) Utility Index, comprised of 36 Value Line-recognized electric utilities and 9 gas or other diversified utilities, had a 2014 stock price rise of 24.3 percent in 2014 versus 11.4 percent for the S&P 500 Index, 7.5 percent for the DJIA Index, and 13.4 percent for the NASDAQ.⁶⁴⁶ In February 2015 broad stock market indices and especially utility stock prices declined, but overall utility stock price changes still compare favorably with the last 12 months' performance of the S&P 500 and DJIA indices, according to SNL *Financial Focus*.⁶⁴⁷ At March 10, 2015, Moody's opined that regulators can lower authorized ROEs without hurting utility cash flows and without hurting near-term credit ratings.⁶⁴⁸ Low interest rates in the debt capital markets provide favorable conditions for all borrowing corporations including NETOs to refinance existing debt and issue new debt at favorable low rates.⁶⁴⁹ Ms. Joe testified that the fact that electric utility stock remain at historically high valuations, together with continuing low interest rates create favorable market conditions for electric utilities to raise capital at low cost.⁶⁵⁰ She explained that these capital market conditions support placing the Base ROE at the traditional midpoint of a properly applied two-step DCF method.⁶⁵¹

258. Ms. Joe found Dr. Avera's Expected Earnings approach to be flawed. She stated that it yielded circulatory regulatory rate-making results because he used regulated utilities rather than a sample of comparable risk unregulated companies.⁶⁵² According to Ms. Joe, using unregulated firms is essential because unregulated firms' earnings reflect the free forces of market competition.⁶⁵³ Using regulated utilities' earnings projections merely yields ROE estimates based on regulatory allowed earnings and past established ROEs.⁶⁵⁴ Ms. Joe testified that, alone, backward-looking State authorized ROEs of unknown derivation are inadequate support for placing the NETOs' Base ROE above the midpoint of the zone of reasonableness, as they do not satisfy the Commission's cost standard of setting an ROE equal to the current market cost of equity.⁶⁵⁵ She stated that

⁶⁴⁴ *Id.*

⁶⁴⁵ *Id.*

⁶⁴⁶ *Id.* at 12-13.

⁶⁴⁷ *Id.* at 13 (citing Ex. No. S-4 at 64).

⁶⁴⁸ *Id.*

⁶⁴⁹ *Id.*

⁶⁵⁰ *Id.* at 13-14.

⁶⁵¹ *Id.* at 14.

⁶⁵² *Id.* at 16.

⁶⁵³ *Id.*

⁶⁵⁴ *Id.*

⁶⁵⁵ *Id.* at 17.

some of the other benchmarks offered by Dr. Avera, such as his FERC gas pipeline Risk Premium analysis, have been rejected in Opinion No. 531.⁶⁵⁶

259. Ms. Joe testified that the placement of the Base ROE at the midpoint of the two-step DCF model results is consistent with the risks of the NETOs transmission service.⁶⁵⁷ The Commission affirmed the accuracy of the zone of reasonableness established by its two-step electric DCF model in Opinion No. 531 and the proxy group comparable risk band agreed upon by every ROE witness in this proceeding encompasses the entire investment grade electric utility industry except for the riskiest, lowest rated (Moody's rated Baa3) companies.⁶⁵⁸ Logically, the NETOs are at least no riskier than the comprehensive electric industry.⁶⁵⁹ Although NETOs witness Ms. Lapson testified to a higher NETOs risk, she reached this conclusion through the use of assumptions and methods already rejected in Opinion No. 531 and other Commission precedent.⁶⁶⁰

260. Ms. Joe described a just and reasonable rate as one that is "bounded on one end by investor interest and the other by the public interest against excessive rates."⁶⁶¹ Under *Hope* and *Bluefield*, an ROE should be sufficient to: (1) Maintain the financial integrity of the utility, (2) allow it to raise capital on reasonable terms necessary for the discharge of its mission to provide efficient and economical electric service to the public, and (3) compensate investors for the risk they assume commensurate with the returns earned by comparable risk enterprises.⁶⁶²

261. Ms. Joe identified the current market cost of equity as the Commission's cost-based standard for just and reasonable ROEs as the minimum rate of return investors require from a company's common stock, plus an allowance for flotation costs, where appropriate.⁶⁶³ This cost of equity is determined by investors, and changes to it are reflected in the price that investors are willing to pay for its common stock.⁶⁶⁴ The required rate of return on equity is forward-looking, and cannot be assumed to equal past required or earned rates of return on equity.⁶⁶⁵

262. Ms. Joe used the two-step DCF model established for electric utilities in Opinion

⁶⁵⁶ *Id.*

⁶⁵⁷ *Id.*

⁶⁵⁸ *Id.*

⁶⁵⁹ *Id.*

⁶⁶⁰ *Id.* at 18.

⁶⁶¹ *Id.* (citing *Maine Public Utilities Commission v. Federal Energy Regulatory Commission*, 520 F.3d 464, 471 (D.C. Cir. 2008)).

⁶⁶² *Id.* at 18-19.

⁶⁶³ *Id.* at 19.

⁶⁶⁴ *Id.*

⁶⁶⁵ *Id.*

No. 531.⁶⁶⁶ Consistent with Opinion No. 531-B, she used true IBES short-term growth data instead of the Yahoo! Published data relied upon in Opinion No. 531.⁶⁶⁷ Ms. Joe followed the Commission's instructions in Opinion No. 531-B.⁶⁶⁸

The two-step DCF model replaces the single-step DCF model for use in determining ROEs for electric utilities.⁶⁶⁹ While the single-step DCF model used on short-term growth rate, the two-step model incorporates a composite growth rate based on both analyst short-term growth estimates and a long-term growth estimate of Gross Domestic Product ("GDP").⁶⁷⁰ The GDP growth rate is established as the average of GDP long-term growth estimates from three sources approved in Opinion No. 531-A.⁶⁷¹ The DCF model basically reflects returns to the investor as an infinite stream of dividend cashflows discounted to the present value by the required rate of return.⁶⁷²

263. Ms. Joe explained that the DCF model measures investors' required return on equity for a particular company, and is expressed by the following formula: $k = D/P + g$. In this formula, k = the estimate of investors' required return; D = the annual dividend; P = the stock price; and g = the expected growth rate of the dividends per share.⁶⁷³ In practice, the unknown variable to be solved by the Commission when it develops its allowed ROE is investors' required return on equity, k , since dividend, price, and composite growth rate data is readily available.⁶⁷⁴

264. For the Complaint II Period, using the six months study period ending March 31, 2014, Ms. Joe's DCF results are a zone of reasonableness of 7.06 percent to 10.3 percent with a median of 8.62 percent, midpoint of 8.72 percent, 75th percentile of 9.19 percent and a Top Quarter of 9.56 percent.⁶⁷⁵ She recommended a Base ROE of 8.72 percent (midpoint) and a maximum ROE for incentive transmission projects at the top of her zone of reasonableness of 10.39 percent.⁶⁷⁶ For the Complaint III Period beginning July 31, 2014 and going forward prospectively, Ms. Joe's DCF results are based on a DCF analysis of data for the six months ended January 31, 2015.⁶⁷⁷ Her DCF results are a zone of reasonableness of 6.06 percent to 11.47 percent with a median of 8.42 percent,

⁶⁶⁶ *Id.* at 20.

⁶⁶⁷ *Id.*

⁶⁶⁸ *Id.* at 20-21 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 6 (2015)).

⁶⁶⁹ *Id.* at 21.

⁶⁷⁰ *Id.*

⁶⁷¹ *Id.*

⁶⁷² *Id.*

⁶⁷³ *Id.* at 22.

⁶⁷⁴ *Id.*

⁶⁷⁵ *Id.* at 24.

⁶⁷⁶ *Id.*

⁶⁷⁷ *Id.* at 24-25.

midpoint of 9.03 percent, 75th percentile level of 9.16 percent, and a Top Quarter result of 10.25 percent. Ms. Joe recommended a Base ROE of 9.03 percent (midpoint) and a Maximum ROE for incentive transmission projects at the top of her zone of reasonableness of 11.47 percent.⁶⁷⁸

265. Ms. Joe selected the proxy group by first evaluating the target electric utilities comprising the NETOs to establish their business and financial risk and then applying the following six screening criteria to establish her comparable risk proxy group for the study period. Each proxy member must:

1. Be listed as a U.S. publicly-traded entity belonging on the Value Line Investment Survey list of members of the electric utility sector.⁶⁷⁹
2. Have an investment grade issuer credit rating (ICR) from S&P and/or Moody's Investment Advisory Service that is within a comparable risk band that is no more than one notch away from the issuer credit ratings of the target NETOs.⁶⁸⁰
3. Have a continuous, stable dividend payment history with no dividend cuts or announced dividend cuts during the six month period of DCF analysis.⁶⁸¹
4. Not be the subject of announced major merger or acquisition activity during the six month period of DCF analysis significant enough to distort its stock price, dividends, or short-term growth rate.⁶⁸²
5. Have current, legitimate mean IBES long term growth rate projection (short term growth rate for a 3 to 5 year period labelled LTG or long term growth rate by IBES).⁶⁸³
6. Have a DCF result in accord with Opinion No. 531's two-step DCF methodology that does not fail fundamental tests of economic logic by being unreasonably and illogically too high (a high outlier) or too low (low outlier).⁶⁸⁴

266. Ms. Joe testified that the Commission has long used ICRs as a primary indicator of an energy company's business and financial risk and she confined her risk assessment of the target utilities to the ICRs published by S&P or Moody's.⁶⁸⁵ There are eleven NETOs respondents among the numerous PTOs in ISO-NE. For both of Ms. Joe's study periods, the eleven NETOs' ICRs range from A- to BBB (S&P) and A2 to Baa1 (Moody's).⁶⁸⁶

⁶⁷⁸ *Id.* at 25.

⁶⁷⁹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 100).

⁶⁸⁰ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 106-108).

⁶⁸¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 112).

⁶⁸² *Id.* at 25-26 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 114).

⁶⁸³ *Id.* at 26.

⁶⁸⁴ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 118, 122).

⁶⁸⁵ *Id.* at 27.

⁶⁸⁶ *Id.* (citing Ex. S-3 at 2, 9.).

Ms. Joe explained that the “Effective ICRs” recognize long established Commission precedent that if a target operating subsidiary has no independent, stand-alone ICR, then the ICR of its parent may be used.⁶⁸⁷ She stated that S&P refers investors to the “consolidated credit rating” of a subsidiary with its parent when the subsidiary is not separately rated, and this is the case for Bangor Hydro-Electric Company and New Hampshire Transmission LLC.⁶⁸⁸

267. Ms. Joe explained that the Commission has defined the broadest possible risk band to include companies no more than one notch above or below the credit ratings of the NETOs.⁶⁸⁹ Unrated (“NR”) target NETOs which have neither an independent ICR nor a parent ICR are ignored pursuant to note 209 of Opinion No. 531.⁶⁹⁰ Accordingly, the comparable risk ICR band for both Ms. Joe’s study periods embraces an S&P ICR band of A to BB- and Moody’s ICR band of A1 to Baa2.⁶⁹¹

268. Ms. Joe selected the Value Line utilities for each of her study periods in accordance with the Commission’s specifications in Opinion No. 531. that Value Line-recognized electric utilities shall be the starting universe of electric utilities in forming a national proxy group.⁶⁹² At March 27, 2014 there were 47 Value Line electric utilities, and Ms. Joe also included for further evaluation Unitil Corporation which was not added to the Value Line list of electric utilities until March 28, 2014.⁶⁹³ These total 48 electric utilities formed her starting universe of proxy group candidates and were unchanged for her Complaint III study period, which encompassed the six months ending January 31, 2015.⁶⁹⁴

269. Ms. Joe excluded from the proxy group those companies that were more than one notch above or below the credit ratings of the utilities whose rates are at issue based on either the S&P ratings or the Moody’s ratings.⁶⁹⁵ For the Complaint II study period she eliminated six electric utilities with Baa3 or lower ratings because they fell outside the Moody’s comparable risk band and also eliminated two companies for lack of any S&P or Moody’s credit rating.⁶⁹⁶ The excluded Baa3 companies for the Complaint II study period are Entergy, FirstEnergy, PNM Resources, PPL Corporation, Pepco Holdings, and SCANA Corporation.⁶⁹⁷ Ms. Joe also eliminated MGE Energy and Unitil Corporation

⁶⁸⁷ *Id.* (citing *Green Power Express LP*, 127 FERC ¶ 61,031 at P 90 (2009)).

⁶⁸⁸ *Id.* at 27-28.

⁶⁸⁹ *Id.* at 28.

⁶⁹⁰ *Id.*

⁶⁹¹ *Id.*

⁶⁹² *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 100).

⁶⁹³ *Id.* at 28-29.

⁶⁹⁴ *Id.* at 29.

⁶⁹⁵ *Id.*

⁶⁹⁶ *Id.*

⁶⁹⁷ *Id.* at 30.

because they had neither an S&P nor a Moody's ICR at March 2014.⁶⁹⁸ For the Complaint III study period, she eliminated the same six companies which had Moody's Baa3 or lower ICRs as in the Complaint II study period.⁶⁹⁹ She also eliminated MGE Energy for lack of any S&P or Moody's ICR.⁷⁰⁰ Consequently, Ms. Joe eliminated a total of seven electric utilities on the basis of credit ratings.⁷⁰¹

270. Ms. Joe also eliminated companies based on her dividend screening criterion. For the Complaint II study period, FirstEnergy failed the dividend screening criterion requiring continuous payment of a dividend without any actual or announced dividend cuts during the six month period of DCF analysis.⁷⁰² No companies were eliminated on the basis of the dividend screening criterion for the Complaint III study period.⁷⁰³

271. Additionally, Ms. Joe eliminated certain companies that were engaged at some time during the respective DCF study periods in merger or acquisition activity that would materially affect their balance sheets, and thus affect their stock prices and short-term ("EPS") growth rates.⁷⁰⁴ For the Complaint II study period, Ms. Joe's merger and acquisition screen eliminated Entergy, ITC Holdings, Northwestern, TECO Energy, UIL Holdings, and UNS Energy.⁷⁰⁵ For the Complaint III study period ended January 31, 2015, Ms. Joe's merger and acquisition screen eliminated Cleco, Exelon, Hawaiian Electric, Integrys Energy, Next Era Energy, Northwestern, PPL, Pepco Holdings, TECO Energy, UIL Holdings, and Wisconsin Energy.⁷⁰⁶

272. Ms. Joe's IBES eliminated companies which did not have a current and legitimately derived mean IBES growth rate projection as of the end of the six month DCF study period.⁷⁰⁷ She considered exclusion of companies with stale or incorrect analyst growth rates from her proxy group to be consistent with the Commission's concern that the growth rate data not be sourced from slightly different time periods in order to ensure that growth rate estimates are internally consistent in an ROE analysis.⁷⁰⁸ Her growth rates are sourced as of the last day of each of the respective six month study periods and she sourced her short-term growth rates for both the study periods entirely from true IBES data authenticated by IBES.⁷⁰⁹ Her growth rate screen eliminated ten

⁶⁹⁸ *Id.*

⁶⁹⁹ *Id.*

⁷⁰⁰ *Id.*

⁷⁰¹ *Id.*

⁷⁰² *Id.* at 30-31.

⁷⁰³ *Id.* at 31.

⁷⁰⁴ *Id.*

⁷⁰⁵ *Id.* at 31-36.

⁷⁰⁶ *Id.* at 36-40.

⁷⁰⁷ *Id.* at 40.

⁷⁰⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90).

⁷⁰⁹ *Id.* at 40-41.

companies from the Complaint II study period proxy group: Allete, Avista, El Paso Electric, Integrys Energy Group, MGE Energy, OGE Energy, Otter Tail, TECO Energy, Unitil, and UNS Energy.⁷¹⁰ Seven of these ten companies failed Thomson Reuters' IBES "Freshness Policy" because the analyst growth rates were more than 180 days old without having been re-confirmed or updated by the contributing broker-analysts.⁷¹¹ The broker-analysts for Integrys Energy and OGE withdrew their estimates and IBES excluded Unitil's growth rate due to inconsistencies in the accounting basis used by the contributing broker-analysts.⁷¹² For the Complaint III study period ending January 31, 2015, Ms. Joe testified that IBES has no current mean analyst growth rate estimate available for Allete, Avista, Black Hills, El Paso Electric, MGE Energy, Otter tail, and Unitil.⁷¹³ Consequently, Ms. Joe eliminated them from the proxy group.⁷¹⁴

273. Ms. Joe clarified the three different sources of short-term growth rate estimates referenced in her testimony. First, the IBES database is owned and managed by Thomson Reuters and IBES data is available for commercial purchase from its IBES data sales division TROD or, after February 16, 2015, from Thomson Reuters' Alacra On Demand ("AOD"). Ms. Joe used TROD-sourced IBES data for her DCF analyses for both study periods in this proceeding because through this direct-sourcing IBES authenticated its provided data.⁷¹⁵ In addition, she explained that the Yahoo! Free website and the free Reuters.com website are two-non direct sources of IBES-based data. While both purport to publish data from IBES, Ms. Joe testified that these independent websites use their own protocols for publishing and calculating the mean IBES short-term growth rate estimates. According to Ms. Joe, it is Yahoo!'s custom to continue publishing stale IBES data on its website when IBES does not have a current IBES growth rate estimate for a particular company and Reuters.com is also free to publish IBES data in a manner that does not comport with IBES protocols.⁷¹⁶

274. Ms. Joe testified that Opinion No. 531-B supports the use of IBES short-term growth rate estimates.⁷¹⁷ However, she stated that Opinion No. 531 does not mention Yahoo! or its website source for short-term growth rates. The Commission stated: "On balance, we find it preferable to use a consistent source of dividend growth projections for all members of the proxy group as provided by IBES..."⁷¹⁸ The Commission also stated that:

⁷¹⁰ *Id.* at 41.

⁷¹¹ *Id.* (citing Exhibit No. S-3 at 5).

⁷¹² *Id.* at 41-42.

⁷¹³ *Id.* at 42.

⁷¹⁴ *Id.*

⁷¹⁵ *Id.* at 42-43.

⁷¹⁶ *Id.* at 43.

⁷¹⁷ *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 71-72, 76).

⁷¹⁸ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 72.

[u]sing different sources of growth rate data for different companies in a proxy group could produce skewed results, because those sources may take different approaches for calculating growth rates.

And:

[T]he purpose of not using multiple sources of growth rate data is to ensure that the cost of equity for each company in the proxy group is estimated using the same protocols.

275. Ms. Joe disagreed with the Commission's apparent assumptions in Opinion No. 531 at paragraph 81 that Yahoo! provides short-term growth rate estimates identical to those provided by IBES and that Yahoo! provides them comprehensively for electric utilities in a consistent time period.⁷¹⁹ She testified that Yahoo! does not always provide accurate or current IBES growth estimates for all electric utilities and Yahoo! publishes growth rates should not be equated with IBES growth rates.⁷²⁰ Ms. Joe stated that these assumptions are incorrect and she believes that her use of directly-sourced IBES data through TROD is consistent with the Commission's expressed rationale for using one source of short-term growth estimates developed under consistent protocols (IBES data consistent with IBES protocols here).⁷²¹

276. Ms. Joe sourced her IBES growth rate data from TROD because TROD is capable of directly authenticating with IBES staff the IBES data under true IBES protocols.⁷²² She testified that, in contrast, Yahoo! publishes stale IBES data which is inconsistent with IBES protocols.⁷²³ She stated that Yahoo! does not cease publishing stale, and/or invalid IBES growth rates when no valid new IBES growth rate estimate is currently available.⁷²⁴ According to Ms. Joe, this creates an illusion that Yahoo! always provides mean analyst growth rate estimates comprehensively for the electric industry in all time periods.⁷²⁵ In contrast, Thomson Reuters manages the IBES database under an official "Freshness Policy" codified in its "Client Guide."⁷²⁶ The "Freshness Policy" provides that an analyst growth rate estimate that is older than 180 days and is not re-confirmed or updated by the analyst, is discarded as stale and is not to be incorporated in the calculation of the IBES current mean growth rate estimate.⁷²⁷

277. Ms. Joe provided documentation that Yahoo! carries stale and otherwise erroneous

⁷¹⁹ Ex. S-1 at 46.

⁷²⁰ *Id.*

⁷²¹ *Id.* at 45-46.

⁷²² *Id.* at 46.

⁷²³ *Id.* at 47.

⁷²⁴ *Id.*

⁷²⁵ *Id.*

⁷²⁶ *Id.* (citing Ex. No. S-4 at 1).

⁷²⁷ *Id.*

information on its website. In Docket No. ER14-1332, the DCF results in the applicant DATC Path 15, LLC's ROE filing were impacted by a Yahoo! growth rate error for Southern Company.⁷²⁸ This erroneous Yahoo! growth rate catapulted Southern Company to the top of the zone of reasonableness, thereby distorting the DCF results.⁷²⁹ The erroneous Yahoo! short term growth rate came to light on January 31, 2014, when Yahoo! published a mean analyst growth rate estimate of 9.46 percent for Southern Company.⁷³⁰ On the same day, the free website Reuters.com published a mean analyst growth rate estimate of 9.0 percent for the Southern Company.⁷³¹ The Reuters.com website, which routinely reveals more detail than the Yahoo! website, showed that eight analysts had contributed to the Reuters.com website mean estimate and that the high estimate among those contributors estimated an unbelievable annualized growth rate of 45.00 percent.⁷³² Upon inquiry by Staff, TROD provided the correct IBES growth rate of 3.31 percent for January 31, 2014.⁷³³

278. For the Complaint III study period, Ms. Joe testified that several Yahoo! growth rate errors also affect Dr. Avera's DCF results. She stated that no current mean analyst growth rate estimates are available for Allele, Avista, Black Hills, El Paso Electric, MGE Energy, Otter Tail, and Unitil.⁷³⁴ In contrast, she stated that screenshots of the Yahoo! website on January 30, 2015 show that Yahoo! published these stale, withdrawn, or otherwise incorrect IBES growth rates for those companies (except for El Paso Electric) as if they were valid and current.⁷³⁵ With one exception, these published Yahoo! growth rates matched the growth rates IBES had listed as "excluded" (invalid due to staleness or other reasons) on Ms. Joe's TROD IBES exhibit.⁷³⁶ Ms. Joe concluded that Yahoo! published incorrect growth rates on January 30, 2015 that had been withdrawn by IBES for Allele, Avista, Black Hills, El Paso Electric, MGE Energy, Otter Tail, and Unitil.⁷³⁷

279. Ms. Joe concluded that investors would not rely on Yahoo! growth rates to bid their stock prices and that Yahoo! growth rates are therefore not valid inputs to the DCF forecast of investors' perceptions of their required return on equity.⁷³⁸ She testified that the typical stock investor influencing approximately 70 percent of stock prices is a pension fund or mutual fund investor – a group that presumably has the resources and motivation to seek more reliable sources of IBES data directly from TROD rather than

⁷²⁸ *Id.* at 47-48.

⁷²⁹ *Id.* at 48.

⁷³⁰ *Id.* (citing Ex. No. S-4 at 2).

⁷³¹ *Id.* (citing Ex. No. S-4 at 5).

⁷³² *Id.*

⁷³³ *Id.* at 48-49.

⁷³⁴ *Id.* at 51 (citing Ex. S-3 at 12).

⁷³⁵ *Id.* (citing Ex. No. S-4 at 7-20).

⁷³⁶ *Id.* at 52 (citing Ex. No. S-3 at 12).

⁷³⁷ *Id.* at 52-53.

⁷³⁸ *Id.* at 53.

rely on the free Yahoo! website.⁷³⁹ Secondly, she explained that there are competing free websites such as Reuters.com and subscription investment advisory services such as Bloomberg and Zacks that offer growth rate data.⁷⁴⁰

280. Ms. Joe cited Opinion No. 531 at paragraph 77 to describe the Commission's dividend yield calculation as applied in her application of the Commission's two-step DCF methodology.⁷⁴¹

That methodology derives a single dividend yield for each proxy group company, using a three-step process: (1) averaging the high and low stock prices as reported by the New York Stock Exchange of NASDAQ for each of the six months in the study period; (2) dividing the company's indicated annual dividend for each of those months by its average stock price for each month (resulting in a monthly dividend yield for each month of the study period); and (3) averaging those monthly dividend yields.

Ms. Joe stated that she followed this methodology by synchronizing the average monthly stock prices with the dividends declared as applicable for each month.⁷⁴² Ms. Joe's considers her approach consistent with long-established Commission precedent affirmed in Opinion No. 531 at P 77 and *Portland Natural Gas Transmission System*, Opinion No. 510, 134 FERC ¶ 61,129 at PP 232-234 (2011).

281. For the long-term growth rate for her two-step DCF analysis, Ms. Joe used the average of the three individual GDP growth rates sourced from the Energy Information Administration (EIA), Social Security Administration (SSA), and HIS Global Insight (HIS).⁷⁴³ The average GDP growth rate synchronized with the Complaint II six month study period ending March 2014 is 4.38 percent.⁷⁴⁴ For the Complaint III study period, the average GDP growth rate is 4.39 percent.⁷⁴⁵

282. Ms. Joe eliminated companies whose DCF results were not at least approximately 100 basis points above the average yield on Moody's public utility bonds for the six month study period.⁷⁴⁶ For the Complaint II study period, this eliminated Edison International and Exelon from the 29 companies that resulted from her first five proxy group screening criteria explained earlier.⁷⁴⁷ For the Complaint III study period, this low-

⁷³⁹ *Id.*

⁷⁴⁰ *Id.* at 54.

⁷⁴¹ *Id.* at 55-56.

⁷⁴² *Id.* at 56.

⁷⁴³ *Id.* at 57.

⁷⁴⁴ *Id.* (see Ex. S-3 at 7).

⁷⁴⁵ *Id.* (see Ex. S-3 at 14).

⁷⁴⁶ *Id.*

⁷⁴⁷ *Id.*

outlier test did not eliminate any of her 26-member proxy group.⁷⁴⁸ Ms. Joe testified that her approach is consistent with Opinion No. 531 at paragraph 122 where the Commission affirmed its' long established "low-end outlier test."⁷⁴⁹ Low-end outliers are considered illogical ROE results because, given a rational economic choice, it is irrational for an investor to accept a stock ROE that is so low that it yields essentially the same return as a less risky bond.⁷⁵⁰ Ms. Joe did not eliminate any high-end outliers.⁷⁵¹

283. For the Complaint II study period, Ms. Joe's DCF results are based on a 29 member proxy group with a zone of reasonableness of 7.06 percent to 10.39 percent with a median of 8.62 percent, midpoint of 8.72 percent, 75th percentile of 9.19 percent and a Top Quarter (halfway between the midpoint and the zone of reasonableness) of 9.56 percent.⁷⁵² For the Complaint III study period, her DCF results were based on a 26-member proxy group with a zone of reasonableness of 6.60 percent to 11.47 percent with a median of 8.42 percent, midpoint of 9.03 percent, 75th percentile value of 9.16 percent, and a Top Quarter result of 10.25 percent.⁷⁵³

284. Ms. Joe compared her DCF analysis for the Complaint II study period with that of NETOs witness Dr. Avera.⁷⁵⁴ Dr. Avera applied his DCF analysis using Yahoo! published purported IBES growth rates to a 36-company proxy group (as compared to Ms. Joe's 29-member group).⁷⁵⁵ Ms. Joe testified that he improperly calculated dividend yields of his proxy group companies, which led to his higher DCF results for each company.⁷⁵⁶ She explained that Dr. Avera's zone of reasonableness and midpoint results are significantly higher than her own; chiefly due to the inclusion of ITC Holdings (which she excluded due to merger and acquisition activity), his inclusion of proxy companies with stale Yahoo! "IBES" growth rates rejected as invalid by IBES, and his use of an incorrect short-term growth rate for Portland General Electric Company.⁷⁵⁷

285. Ms. Joe explained that Dr. Avera incorrectly applied only the last month's declared dividend to all six months of his stock prices.⁷⁵⁸ She stated that this is contrary to long established Commission precedent on how dividend yields are calculated under the two-step DCF method for natural gas and oil ROEs.⁷⁵⁹ According to Ms. Joe, the

⁷⁴⁸ *Id.* at 57-58.

⁷⁴⁹ *Id.* at 58.

⁷⁵⁰ *Id.*

⁷⁵¹ *Id.*

⁷⁵² *Id.* at 59-60.

⁷⁵³ *Id.* at 60.

⁷⁵⁴ *Id.*

⁷⁵⁵ *Id.*

⁷⁵⁶ *Id.*

⁷⁵⁷ *Id.*

⁷⁵⁸ *Id.* at 61 (citing Ex. NET-1327 at 2-11,187-196).

⁷⁵⁹ *Id.*

correct method of calculating dividend yields under the two-step DCF method was affirmed in Opinion No. 510.⁷⁶⁰

Using only the dividend declared in the final month results in a mismatch between the stock prices and the dividends used to calculate a firm's dividend yield. A company's stock price is affected by dividends declared and expected by investors. Thus, the method using only the dividend declared in the final month of the period fails to account for the effect of prior period dividends on earlier stock prices used in the calculation. As shown by the Portland and Trial Staff, such an approach is especially problematic when a firm raises its dividends or distributions during the six month period. That is because earlier stock prices do not reflect the increased value of the stock resulting from the increased dividend or distribution. As a result, the calculated dividend yield would likely be overstated. Accordingly, we find that the ALJ was correct to adopt Trial Staff's methodology for calculating dividend yield in this case. (Footnote omitted.)

Ms. Joe testified that Dr. Avera's dividend yield method is also inconsistent with Opinion No. 531 in which the Commission states at paragraph 77.⁷⁶¹ She concluded that Dr. Avera's calculated dividend yields are inappropriately higher because he failed to synchronize stock prices with the appropriate dividend yields.⁷⁶²

286. Ms. Joe testified that Dr. Avera improperly included ITC Holdings in his proxy group for the Complaint II study period.⁷⁶³ She noted that the Commission excluded ITC Holdings for merger and acquisition activity in Opinion No. 531 and that same merger activity remained ongoing during three months of the six-month study period for the Complaint II Period.⁷⁶⁴ She believes the merger distorted ITC Holding's stock price during the EL13-33 study period and it should continue to be excluded from the proxy group for this study period.⁷⁶⁵

287. Ms. Joe testified that Dr. Avera included in his Complaint II proxy group five companies (Allete, El Paso Electric, Integrys Energy, OGE Energy, and Otter Tail) which have no IBES growth rate available for that study period.⁷⁶⁶ She stated that his short-term growth rates for these companies are incorrect and generally led to higher overall DCF

⁷⁶⁰ *Id.* (citing Opinion No. 510 at P 234).

⁷⁶¹ *Id.* at 61-62.

⁷⁶² *Id.* at 62.

⁷⁶³ *Id.*

⁷⁶⁴ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 114).

⁷⁶⁵ *Id.*

⁷⁶⁶ *Id.* at 63.

results than is warranted.⁷⁶⁷

288. Ms. Joe discussed how Dr. Avera used an incorrect IBES growth rate for Portland General Electric. She believes that Portland General Electric should remain in the Complaint II proxy group, but with a corrected IBES growth rate.⁷⁶⁸ During the Complaint II study period and through September 23, 2014, the IBES mean analyst growth rate estimate for Portland General Electric contained an illogical near 20 percent individual analyst growth rate estimate.⁷⁶⁹ According to IBES, this long-running error was reflected in a March 31, 2014 erroneous 10.89 percent IBES mean growth rate estimate for Portland General Electric.⁷⁷⁰ Ms. Joe stated that this erroneous 10.89 percent growth rate is displayed in Dr. Avera's Ex. NET-1327 at 196-A (Errata) as of March 31, 2014. The IBES staff, through TROD, confirmed to Ms. Joe that the March 2014 IBES mean analyst growth rate estimate of 10.89 percent for Portland General is incorrect and IBES provide her with the corrected mean analyst growth rate estimate of 6.60 percent for March 2014.⁷⁷¹ Ms. Joe believes that Dr. Woolridge used his own calculation of 8.03 percent as an estimate for a corrected IBES growth rate for Portland General Electric for the Complaint III study period and that Dr. Avera apparently relied on Dr. Woolridge's calculated 8.03 percent growth rate when Dr. Avera used it in his DCF analysis for the Complaint II study period.⁷⁷²

289. Ms. Joe excluded ITC Holdings and corrected Portland General Electric's growth rate, and estimated Dr. Avera's Complaint II DCF results with those changes.⁷⁷³ This reduced the top of Dr. Avera's zone of reasonableness for the study period from 11.31 percent to 10.42 percent. According to Ms. Joe, this reduction alone commensurately revises Dr. Avera's midpoint downward from 9.17 percent to 8.73 percent.⁷⁷⁴

290. Ms. Joe evaluated Dr. Avera's Complaint II Value Line DCF results. He conducted a two-step DCF analysis of his 36-company proxy group using the EPS growth rates published by Value Line.⁷⁷⁵ His two highest results were for Otter Tail Corp. (15.93 percent) and ITC Holdings (13.67 percent).⁷⁷⁶ That exhibit also shows that these two companies reflect short-term Value Line growth rates of 15.0 percent and 15.5 percent, respectively.⁷⁷⁷ However, Ms. Joe testified that the Commission has consistently

⁷⁶⁷ *Id.*

⁷⁶⁸ *Id.*

⁷⁶⁹ *Id.* at 64.

⁷⁷⁰ *Id.*

⁷⁷¹ *Id.*

⁷⁷² *Id.* at 64-65.

⁷⁷³ *Id.* at 65.

⁷⁷⁴ *Id.*

⁷⁷⁵ *Id.* (citing Ex. NET-1300 at 21-22).

⁷⁷⁶ *Id.* (citing Ex. NET-1315 at 2).

⁷⁷⁷ *Id.* at 66.

rejected short term growth rates in excess of 13.3 percent as being unsustainable and not passing fundamental tests of economic logic.⁷⁷⁸ Excluding Otter Tail and ITC Holdings revises Dr. Avera's Value Line EPS growth rate DCF midpoint result of 11.08 percent to 9.76 percent.⁷⁷⁹

291. Ms. Joe compared her DCF analysis for the Complaint II study period with that of EMCOS witness Dr. Wilson. Dr. Wilson performed the two-step DCF analysis on a group of 35 companies and his results were significantly higher than Ms. Joe's, chiefly because of his inclusion of PNM Resources and ITC Holdings, which were both excluded from her study.⁷⁸⁰ Ms. Joe stated that PNM Resources has a Baa3 Moody's credit rating which is inconsistent with the comparable risk credit rating band used by all ROE witnesses in this proceeding, including Dr. Wilson.⁷⁸¹ Ms. Joe contends that ITC Holdings should be excluded for merger and acquisition activity.⁷⁸² Excluding these two companies alone reduces Dr. Wilson's top of the zone of reasonableness from 11.26 percent to 10.38 percent and Dr. Wilson's midpoint would also decline to 8.73 percent.⁷⁸³

292. Ms. Joe also compared her DCF analysis for the Complaint II study period with that of CAPs witness Dr. Woolridge. Although Dr. Woolridge applied the Commission's two-step DCF analysis to a group of 26 electric utilities compared to Ms. Joe's 29-company group, their results are substantially similar.⁷⁸⁴ The salient factor contributing to the difference in results is the difference in IBES growth rates each used for Portland General Electric, which forms the top of Dr. Woolridge's zone of reasonableness.⁷⁸⁵ Dr. Woolridge applied a corrected IBES growth rate for Portland General Electric for the Complaint II study period and Ms. Joe used IBES' own corrected growth rate calculation for Portland General Electric for this period.⁷⁸⁶ Substituting the IBES-corrected growth rate revises Dr. Woolridge's results downward from a top of the zone of reasonableness of 10.64 percent (Portland General Electric) to 10.36 percent (PG&E) with a commensurate midpoint reduction from 8.83 percent to 8.69 percent.⁷⁸⁷

293. Ms. Joe evaluated Dr. Avera's criticisms of the DCF method *per se*. He criticized the application of the low-end outlier test in the Commission's two-step DCF method and

⁷⁷⁸ *Id.* (see, e.g., *Southern California Edison Co.*, 131 FERC ¶ 61,020 at P 57 (2010); Opinion No. 531, 147 FERC ¶ 61,234 at PP 115, 118; NET-1300, 26:12-13, n.39).

⁷⁷⁹ *Id.*

⁷⁸⁰ *Id.*

⁷⁸¹ *Id.*

⁷⁸² *Id.* at 66-67.

⁷⁸³ *Id.* at 67.

⁷⁸⁴ *Id.*

⁷⁸⁵ *Id.*

⁷⁸⁶ *Id.* (citing Ex. No. S-3 at 5 (Schedule 1)).

⁷⁸⁷ *Id.* at 67-68.

supported his criticisms by comparing his lowest DCF result from the Complaint III study period to projected bond yields averaged over a 2015-2019 period.⁷⁸⁸ Ms. Joe believes that this demonstration should be rejected because it fails to recognize that the Commission's low-end outlier test is supported in part by the economic opportunity cost principle, which holds that only when given a rational choice, a rational investor will choose a less risky bond over a riskier stock investment if they yield approximately the same returns.⁷⁸⁹ She stated that Dr. Avera's comparison of his current low-end DCF result for equity to future projected bond yields is not a fair comparison because the rational investor today has only a choice between current return on stocks versus a concurrent, not projected, return on bonds.⁷⁹⁰ The investor today does not have a rational choice to reject a stock price for today in favor of some bond yield that will only be available in the future.⁷⁹¹ The opportunity facing an investor today is a choice between what the stock price costs today and its expected return relative to what she can get in the way of a bond yield today.⁷⁹²

294. According to Ms. Joe, current capital market conditions support the two-step DCF model results because the DCF model signals a low cost of capital investment under current favorable capital market conditions that allow electric utilities to raise capital on reasonable and even inexpensive terms.⁷⁹³ The record in Complaint I was focused on interest rates, and in that proceeding Ms. Joe presented evidence on equity capital market conditions.⁷⁹⁴ Ms. Joe testified that a fundamental principle of corporate financing is that corporations desire high stock prices when issuing common stock and low interest rates when issuing debt. Under those conditions, they are able to attract more capital on favorable terms. Ms. Joe stated that current prevailing low interest rates and high utility stock valuations indicate that the market cost of common equity is currently low.⁷⁹⁵

295. Ms. Joe disagreed with Ms. Lapson's and Dr. Avera's testimony that current capital market conditions warrant placement of the NETOs' Base ROE above the midpoint of DCF results.⁷⁹⁶ She argued that while Ms. Lapson equated the Federal Reserve's monetary policy with abnormal or anomalous capital market conditions, the Federal Reserve monetary policy actually says nothing about whether resulting capital market conditions rendered the DCF method so unreliable that it produces results that fail to meet the capital attraction and financial integrity standards of *Hope* and *Bluefield*.⁷⁹⁷

⁷⁸⁸ *Id.* at 68 (citing Ex. No. NET-1300 at 23:15-25:9).

⁷⁸⁹ *Id.* at 69.

⁷⁹⁰ *Id.*

⁷⁹¹ *Id.*

⁷⁹² *Id.*

⁷⁹³ *Id.*

⁷⁹⁴ *Id.* at 70.

⁷⁹⁵ *Id.* at 71.

⁷⁹⁶ *Id.*

⁷⁹⁷ *Id.* at 71-72.

Ms. Joe explained that Opinion No. 531 did not conclude that anomalous market conditions distorted the financial inputs to the DCF model.⁷⁹⁸ She explained that what the Commission actually expressed is its understanding that any DCF analysis **may** be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions.”⁷⁹⁹ Ms. Joe also testified that Ms. Lapson wrongly concluded that equity capital market conditions and other economic indicators are either irrelevant to the issue in this proceeding or that rising stock prices are another indicator of abnormal financial markets.⁸⁰⁰ Ms. Joe opined that, whatever label one chooses for existing market conditions, whether capital markets offer reasonable or dear opportunities for raising capital and whether the DCF model correctly signals such opportunities are the relevant points of inquiry to inform the overriding issue of meeting the *Hopei* standards for ROEs.⁸⁰¹ Therefore, Ms. Joe concluded, evidence on current capital market conditions should be considered in this proceeding in the light of the ultimate issue of meeting the *Hope* and *Bluefield* standards of capital attraction, financial integrity, and returns commensurate with comparable risk enterprises.⁸⁰²

296. Ms. Joe testified that electric utilities’ stocks outperformed the broad equity market indices in 2014, according to SNL Energy *Financial Focus*.⁸⁰³ SNL Energy declared a “banner year for utility stocks” as the RRA Utility Index showed an average stock price increase of 24.3 percent versus only a 7.5 percent increase for stocks in the DJIA Index, 11.4 percent increase for the S&P 500 Index, and a 13.4 percent increase for the NASDAQ.⁸⁰⁴ The 32-company RRA Utility Index “electric segment” registered an average price gain of 25.5 percent. These improvements in electric utility stocks signal a major change in capital market conditions affecting electric utilities since the 2012-early 2013 record considered in Docket No. EL11-66-001. In 2013, the RRA Utility Index gained only 9.5 percent versus increases in the DJIA, S&P 500, and NASDAQ indices ranging from 27 percent to 39 percent.⁸⁰⁵ In 2012, the RRA Utility Index fell almost 3 percent versus increases in the broad market indices within a 7 percent to 16 percent range.⁸⁰⁶

297. Ms. Joe explained that a progressive increase in electric utility stock P/E (price per share divided by earnings per share) ratios further demonstrates that capital equity market conditions are materially changed for the better since the Commission considered the

⁷⁹⁸ *Id.* at 72 (citing Ex. No. NET-1300 at 8:11-14).

⁷⁹⁹ *Id.* (citing Opinion No. 531 at P 41) (emphasis added).

⁸⁰⁰ *Id.* at 72-73 (citing Ex. No. NET-1400 at 5:16-19 and 11:12-14:2).

⁸⁰¹ *Id.* at 73.

⁸⁰² *Id.*

⁸⁰³ *Id.* (citing Ex. S-4 at 44-55).

⁸⁰⁴ *Id.* at 73-74.

⁸⁰⁵ *Id.* at 74.

⁸⁰⁶ *Id.* (see Ex. S-4 at 44).

record in Opinion No. 531.⁸⁰⁷ A P/E figure is expressed as the stock price multiple of earnings, so a P/E of 18.2s means the stock is selling at a multiple of 18.2 times earnings. The RRA Utility Index recorded “electric segment” P/E ratios which average 18.2x in 2014.⁸⁰⁸ This figure excluded even higher P/E ratios for five Value Line-recognized electric utilities included in the RRA Utility Index “gas segment.”⁸⁰⁹ SNL energy reports the highest average P/E in several years for its RRA Utility Index, such that at the end of 2014 the average P/E for the companies in the RRA Utility Index was 18.7x, versus 16.6x at the end of 2013, and 13.4x at the end of 2010.⁸¹⁰ For the full 2014 year, SNL Energy reports that common equity gains in the energy industry topped 2013 equity raises with \$40.67 billion common equity raises versus \$38.4 billion in 2013.⁸¹¹ Favorable low interest rates allowed many electric utilities to participate in a debt refinancing bonanza to lower their cost of capital and SNL Energy reports that the yield on the 30-year Treasury Bond fell from 3.9 percent at the beginning of 2014 to 2.75 percent by year-end.⁸¹² For all of 2014, SNL Energy reports that energy companies raised \$113.59 billion of debt which marked an increase over 2013’s debt raises of \$98.15 billion.⁸¹³ SNL also provides break-out data for the electric power sector for 2014 through December 5, 2014, reporting that the power sector raised \$55.68 billion of capital, the midstream sector raised \$57.44 billion, gas utilities raised \$12.06 billion, and the coal sector raised \$4.50 billion.⁸¹⁴

298. Ms. Joe testified that the SNL reports that RRA Utility Index stocks outperformed the broad market equity indices in January 2015 with a 2.5 percent price increase compared to the DJIA (-3.7 percent), S&P 500 Index (-3.1 percent) and NASDAQ (-2.1 percent).⁸¹⁵ Subsequently in February 2015, RRA Utility Index stocks declined more in price (-4.7 percent year-to-date by February 27, 2015) relative to the broad market indices on fears of potential interest rate rises, according to SNL *Financial Focus*.⁸¹⁶ However, at the end of February 2015, the RRA Utility Index continues to compare closely with the last 12 months performance of the S&P 500 and continues to outperform the DJIA.⁸¹⁷ Speaking at the February 18, 2015 28th Annual Power and Gas Symposium in New York City, a panel of investment bankers described cheap capital costs, “referred to a number of times as ‘close to free’ capital,” which has allowed utilities new flexibility

⁸⁰⁷ *Id.* at 74-75.

⁸⁰⁸ *Id.* at 75.

⁸⁰⁹ *Id.*

⁸¹⁰ *Id.*

⁸¹¹ *Id.*

⁸¹² *Id.* at 75-76.

⁸¹³ *Id.* at 76.

⁸¹⁴ *Id.*

⁸¹⁵ *Id.*

⁸¹⁶ *Id.* at 76-77.

⁸¹⁷ *Id.* at 77.

in crafting merger and acquisition deals among utilities.⁸¹⁸ Citing investment advisors BMO Capital Markets, SNL reports “While the [stock market] performance of the [utility sector] group will likely be affected by higher interest rates, we believe that if rates rise at a reasonably modest pace, utilities should be able to absorb the impact with limited effect on earnings.”⁸¹⁹ Despite SNL Energy 2015 interest rate concerns, at March 5, 2015 their forecasted P/E ratio for the RRA Utility Index is 17.6x.⁸²⁰ The SNL RRA “electric segment” (31 Value Line-recognized electric utilities plus AES Corp.) is forecasted to have a 2015 P/E of 16.9x while the forecasted P/Es of five Value Line-recognized electric utilities which RRA has classified in its “gas segment,” are generally higher.⁸²¹ These forecasts compare favorably to the aforementioned RRA Utility Index actual average P/E of 16.6x at year-end 2013 and 13.4x at year-end 2010.⁸²²

299. Ms. Joe discussed the expectations for current 2015 interest rates. Although Quantitative Easing by the Federal Reserve ceased in 2014, at its last meeting in December 2014, the Federal Reserve Open Market Committee (FOMC) continued to counsel a “patient” policy approach to any interest rate increases.⁸²³ Speaking to a U.S. Senate Committee on February 24, 2015, the Chairman of the FOMC Janet Yellen indicated that the FOMC may drop the word “patient” (which meant no rate increase for the next two FOMC meetings), and would instead make interest rate decisions on a meeting-to-meeting basis and she indicated that any interest rate increases would depend on economic data.⁸²⁴ A number of economists expect a rate rise between June and September 2015.⁸²⁵ However, falling inflation, concerns over global economic weakness, international government bond yields lower (even negative) than U.S. government bond yields, and lackluster domestic economic data lean in favor of only modest raises in interest rates in the near-future.⁸²⁶ The forecast extended for low interest rates, regardless of what central banks do, was supported by Russ Koesterich, global chief investment strategist for BlackRock, the world’s largest asset manager for institutional and retail investors, in an article “‘Normal’ interest rates are a distant dream for investors.” Financial Times, October 14, 2014:

...[I]nterest rates are likely to remain low for an extended period, relative to their history. Should the yield on the 10-year US Treasury bonds rise to 3-3.5 percent over the next year, it will still be below the long-term average of 6 percent. Irrespective of what the central banks may or may not do, this

⁸¹⁸ *Id.*

⁸¹⁹ *Id.*

⁸²⁰ *Id.*

⁸²¹ *Id.* at 77-78.

⁸²² *Id.* at 78.

⁸²³ *Id.*

⁸²⁴ *Id.* (see Ex. S-4 at 26-27).

⁸²⁵ *Id.*

⁸²⁶ *Id.* at 79.

is a function of several favors, many of which are being driven by long-term secular forces. ...For example, a big drag on growth has been a deceleration of workforce growth, a function of slower population growth and an ageing workforce. An ageing population also exerts downward pressure on inflation...productivity has also slowed since 2004...In short, to the extent both real growth and inflation are being suppressed – by demographics and technology on the inflation side – both nominal growth and interest rates are likely to remain below the post-World War Two norm...[A] five percent risk-free yield will seem increasingly like a distant dream.

Under these capital market conditions, Ms. Joe believes that the two-step DCF model accurately estimates the cost of equity capital because electric utilities are well able to compete for and attract equity and debt capital which, for them, is now historically inexpensive.⁸²⁷

300. Ms. Joe does not believe that Ms. Lapson's testimony on unchanged anomalous capital market conditions justifies placing the NETOs' Base ROE above the midpoint of DCF results in this proceeding.⁸²⁸ Ms. Lapson discussed FOMC "abnormal monetary policy" and interest rates, but she did not discuss the conditions in the equity capital markets which are relevant to raising equity capital.⁸²⁹ Ms. Joe testified that Ms. Lapson failed to recognize that the point of the inquiry was to address the Commission's over-riding concern in Opinion No. 531 as to whether capital market conditions allowed DCF results to meet the capital attraction standard of *Hope* and *Bluefield*.⁸³⁰ To Ms. Joe, the key question is whether the equity and debt capital markets offer financing opportunities on reasonable terms, or, on the other hand, only limited and expensive financing opportunities for electric utilities, and whether the DCF model correctly signals an appropriate ROE for meeting those financial conditions.⁸³¹

301. Ms. Joe stated that the CAPM testimony confirms that capital costs are low, consistent with DCF model results.⁸³² She evaluated the two independent CAPM testimonies presented respectively with Dr. Avera and Dr. Woolridge and found the significant difference in results between these witnesses to be chiefly attributable to the different total market risk premiums they used in their calculations.⁸³³ Another difference was Dr. Avera's adjustment of his CAPM results upward by adding on a size premium.⁸³⁴

⁸²⁷ *Id.* at 80.

⁸²⁸ *Id.*

⁸²⁹ *Id.*

⁸³⁰ *Id.*

⁸³¹ *Id.*

⁸³² *Id.* at 82.

⁸³³ *Id.*

⁸³⁴ *Id.*

She testified that current 2014 advisories from the investment and finance community indicate that Dr. Avera's December 2014 risk premium is inflated and thus produces inflated CAPM ROE results.⁸³⁵ Ms. Joe believes Dr. Woolridge's estimated market risk premium to be consistent with current advisories from the investment and finance communities.⁸³⁶

302. Ms. Joe explained that the CAPM approach widely used in the investment community takes the form:

$$R_j = R_f + \beta_j (R_m - R_f)$$

where: R_j = required rate of return for stock or portfolio j ;
 R_f = risk free rate which is yield on a U.S. Treasury bond;
 R_m = expected return on the entire market of stocks;
 β_j = beta, or systematic risk, for stock or portfolio j .

303. The term above ($R_m - R_f$) is called the "market risk premium." Translated into words, the CAPM formula equals: ROE = Risk Free Bond Yield + Beta j * Market Risk Premium. Thus, there are three elements of the CAPM mathematical equation: (1) the current Risk Free Bond Yield; (2) the Beta which is a risk measure of the specific company(ies) for which an ROE is being estimated; and (3) the estimated "market risk premium" of the total equity capital market over the Risk Free Bond Yield.⁸³⁷

304. Ms. Joe explained that Dr. Avera's CAPM analysis separately used a "historical" Treasury bond yield (at December 2014) and a "projected bond yield" for both study periods and achieved an estimated midpoint ROE which he then adjusted upward by adding a "size premium."⁸³⁸ Dr. Woolridge's CAPM analysis used an average 2014 risk-free bond yield and a 5.0 percent market risk premium to estimate a midpoint ROE that serves as an estimate for both study periods.⁸³⁹

[This space is intentionally left blank]

⁸³⁵ *Id.* at 82-83.

⁸³⁶ *Id.* at 83.

⁸³⁷ *Id.*

⁸³⁸ *Id.* at 84 (citing Ex. No. NET-1306 at 1-2; NET-1317 at 1-2).

⁸³⁹ *Id.* (citing Ex. No. CAP-7 at 1).

Table 1. CAPM Results

	Market Risk Premium	Proxy Group		
		ROE Midpoint	Size Premium	Final ROE Midpoint
<u>EL13-33</u>				
Avera:				
Historical Bond	8.7%	10.98%	0.43%	11.41%
Projected Bond	7.9%	11.12%	0.43%	11.55%
Woolridge	5.0%	7.80%	--	7.80%
Value Line	5.5%			
Duff & Phelps	5.0%			
American Appraisal	6.0%			
<u>EL14-86</u>				
Avera:				
Historical Bond	8.9%	10.98%	0.43%	11.41%
Projected Bond	7.6%	11.12%	0.43%	11.55%
Woolridge	5.0%	7.80%	--	7.80%
Duff & Phelps	5.0%			
Damodaron	5.38%			

305. Ms. Joe explains that the critical difference in Dr. Avera's and Dr. Woolridge's CAPM results is attributable to their estimated (total) market risk premiums.⁸⁴⁰ The beta used by both witnesses is virtually the same – Ms. Joe calculated the average beta used by Dr. Avera as .74 for his proxy group, which compares closely to Dr. Woolridge's average beta of .75.⁸⁴¹ The use of different Risk Free Rates has an impact but this is a matter of judgment in selecting the most up-to-date data available that is representative of the U.S. 30-year treasury bonds for the prospective and historical rate periods for Docket No. EL14-86 and Docket No. EL13-33.⁸⁴² For his "CAPM—Historical Bond Yield" analysis for the EL14-86 study period, Dr. Avera used 3.1 percent which he said was the six-month average yield on 30-year Treasury bonds at December 2014.⁸⁴³ For his similar analysis for the EL13-33 study period, Dr. Avera used a value of 3.8 percent which he

⁸⁴⁰ *Id.* at 86.

⁸⁴¹ *Id.*

⁸⁴² *Id.*

⁸⁴³ *Id.* (citing Exs. NET-1300 at 33:22-34:2; NET-1306 at 1).

testified represents the six-month average yield between September 2013 and February 2014 on 30-year Treasury bonds.⁸⁴⁴ Dr. Avera's CAPM analysis using "Projected Bond Yields" over the 2015-2019 period for the Risk-Free Rate do not estimate the **current** cost of common equity.⁸⁴⁵ Dr. Woolridge used a 4.0 percent Risk-Free Rate based on 30-year Treasury bond yield for each study period and he selected this value based on the fact that the 30-year Treasury bond yields have been in the 2.8 percent to 4.0 percent range over the 2013-2014 period and in consideration of the "potential for higher interest rates".⁸⁴⁶

306. Ms. Joe testified that the investment community's market risk premium estimates generally support Dr. Woolridge's analysis and indicate that Dr. Avera's market risk premium estimates are too high.⁸⁴⁷ Dr. Woolridge presented a review and compilation of 2010-2014 studies providing estimates of the current and projected market risk premium by the investment community and finance community.⁸⁴⁸ Dr. Avera testified that these market risk premium estimates by the investment community are either outdated historical estimates or backward-looking.⁸⁴⁹ However, at least eight of those estimates are 2014 published studies and surveys which Dr. Woolridge notes are *ex ante* multi-year and forward-looking surveys.⁸⁵⁰ For example, the March 2014 Value Line investment advice to its subscribers showed a rough estimate of the then-current market equity risk premium of 5.5 percent with a total expected rate of return on equity for the (total) market of 8.5 percent.⁸⁵¹ This was far lower than Dr. Avera's estimated market equity risk premiums of 8.7 percent or 7.9 percent and his expected (total) market rate of return on equity of 12.5 percent as he estimated for the Complaint II study period ending March 2014.⁸⁵² Ms. Joe provided other examples on pages 88-89 of her Direct and Answering testimony.

307. Ms. Joe explained that if you substitute Dr. Woolridge's CAPM calculation with a higher market risk premium, then the CAPM result for the NETOs would approximately be an ROE of 8.12 percent.⁸⁵³ Value Line stated that the upper range historically for the market equity risk premium has been about 7.0 percent. Substituting that historically high premium into the equation yields a CPM ROE result for the NETOs of 9.25 percent, which is generally consistent with Ms. Joe's DCF results.⁸⁵⁴

⁸⁴⁴ *Id.* (citing Ex. NET-1317 at 1, n. (c)).

⁸⁴⁵ *Id.* at 86-87 (citing Exs. NET-1306 at 2 and NET-1317 at 2).

⁸⁴⁶ *Id.* at 87 (citing Ex. CAP-1 at 37:8-15).

⁸⁴⁷ *Id.*

⁸⁴⁸ *Id.* (see Ex. CAP-7 at 6; Ex. S-3 at 17).

⁸⁴⁹ *Id.* (see Ex. NET-1300 at 111:17-114:2).

⁸⁵⁰ *Id.* at 87-88.

⁸⁵¹ *Id.* at 88.

⁸⁵² *Id.* (citing Ex. No. NET-1317 at 1-2).

⁸⁵³ *Id.* at 90.

⁸⁵⁴ *Id.*

308. Ms. Joe testified that Dr. Avera's size premium is inappropriate. She stated that he added a size premium to his interim CAPM ROE results to determine his final CAPM ROE for his proxy group, but his use of these premiums is in conflict with the advice of experts Duff & Phelps on how to use these published size premiums.⁸⁵⁵ Duff & Phelps are authors of the *2014 Valuation Handbook* which succeeds the former Morningstar-published *SBBI Valuation Yearbook* which uses the premium data relied on by Dr. Avera.⁸⁵⁶ In other words, Ms. Joe explained, Dr. Avera inflated his CAPM results by inappropriately applying the Morningstar size premiums in a way not advised by leading experts on the use of those size premiums.⁸⁵⁷ According to Duff & Phelps, the published size premiums used by Dr. Avera are reported for the midpoint of the companies making up each asset "size" category, and companies within each size category can have different risk profiles and consequently should have different costs of capital.⁸⁵⁸ For a regulated utility, Duff & Phelps advise practitioners to examine the subject regulated utility's relative risk by examining its operating margin and variability of operating margin.⁸⁵⁹ Duff & Phelps say that these two factors help to quantify how much less or more from the typical size premium the cost of capital of the subject regulated utility should be.⁸⁶⁰ Duff & Phelps conclude that the cost of capital needs to reflect the risk characteristics of the subject company (such as variability in operating margin cash flows), rather than risks of the typical firm in the asset size category.⁸⁶¹ Ms. Joe concluded that Dr. Avera assumed away risk differences between utilities and the rest of the stock market in each size category in his inappropriate application of Morningstar size premiums which inflated his CAPM ROE results.⁸⁶²

309. Ms. Joe defined the risk premium method as traditionally a market-based approach using an estimated company (here, utility) risk premium, or differential in return required by investors to be induced to hold the subject's common stock rather than a less risky bond.⁸⁶³ The company risk premium is estimated from market data and added to observable bond yields to get a direct estimate of company ROE.⁸⁶⁴ Rather than estimating a total market risk premium and then applying a company's beta as used in the CAPM approach, in the risk premium method an ROE for a specific company can be directly estimated by comparing comparable risk companies' risk premium over bonds,

⁸⁵⁵ *Id.* (citing Ex. NET-1300 at 35; Ex. S-3 at 16).

⁸⁵⁶ *Id.*

⁸⁵⁷ *Id.* at 90-91.

⁸⁵⁸ *Id.* at 91.

⁸⁵⁹ *Id.*

⁸⁶⁰ *Id.*

⁸⁶¹ *Id.*

⁸⁶² *Id.* at 92.

⁸⁶³ *Id.* at 93.

⁸⁶⁴ *Id.*

thus foregoing the interim estimation of a total market risk premium.⁸⁶⁵

310. Ms. Joe testified that Dr. Avera's risk premium approach is not a traditional market-oriented risk premium approach, but rather a risk premium approach based on partially invalid data on allowed ROEs in past Commission cases. She explained that Dr. Avera calculated his utility risk premium based on a subjectively compiled roster of allowed Base ROEs purportedly authorized by the Commission between 2006 and 2014.⁸⁶⁶ His individual measurements of the Base ROE premium over then-current bond yields for his compiled cases was then used to calibrate a utility risk premium today over current bond yields today.⁸⁶⁷

311. Ms. Joe discussed Dr. Avera's use of invalid data in estimating his utility risk premium for electric utilities. She investigated many of the cases Dr. Avera relied on in Exhibit No. NET-1305 at 4-5 to estimate his utility risk premium and her review identifies at least 26 invalid data cases.⁸⁶⁸ The cases that she deemed representing "invalid data" are cases where the Base ROE was not at issue in the proceeding listed by Dr. Avera, and therefore, she explained they cannot be said to represent Commission authorizations of a Base ROE that is the Commission's own best estimate of the current cost of equity at the time of the disposition.⁸⁶⁹ These 26 minimum number of cases constituting invalid data for risk premium measurement comprise nearly 34 percent of Dr. Avera's total roster of 77 Commission cases.⁸⁷⁰ Ms. Joe stated that these 26 invalid cases generally reflect higher claimed Base ROEs than the 51 remaining cases which she had not classified as "invalid data" for the purposes of this discussion.⁸⁷¹ The weighted average Base ROE of the 26 invalid cases is over 11.08 percent in contrast to the weighted average Base ROE of 10.55 percent for the remaining 51 cases.⁸⁷² These higher invalid data ROEs distort Dr. Avera's utility risk premium results and the true magnitude of distortion depends on the invalid measure of the risk premium he calculated in each of these cases.⁸⁷³ Many of the cases with invalid data are proceedings where only requests for certain incentive rates were at issue and many of the cases with invalid data reflect a Base ROE in effect, but not at issue in the proceeding claimed by Dr. Avera.⁸⁷⁴ Many were established under market conditions many years earlier and do not represent the Commission's best estimate of the current market cost of equity at the time of the case

⁸⁶⁵ *Id.*

⁸⁶⁶ *Id.* at 94 (citing Ex. NET-1305 at 4-5).

⁸⁶⁷ *Id.*

⁸⁶⁸ *Id.* (citing Ex. S-3 18-22).

⁸⁶⁹ *Id.* at 94-95.

⁸⁷⁰ *Id.* at 95.

⁸⁷¹ *Id.* (citing Ex. S-3 18).

⁸⁷² *Id.* (citing Ex. No. S-3 at 18 (Schedule 3)).

⁸⁷³ *Id.*

⁸⁷⁴ *Id.* at 96.

disposition claimed by Dr. Avera.⁸⁷⁵ Many Base ROEs endure for many years unchanged by a section 205 or 206 filing under the Federal Power Act and remain “just and reasonable” until changed, but they do not necessarily represent the Commission’s own best estimate of the current market cost of equity at all points during their tenure or at the times of case disposition claimed by Dr. Avera.⁸⁷⁶ Additionally, Ms. Joe did not classify cases as invalid in which a Base ROE with multi-year moratoriums on any ROE changes were established through settlement.⁸⁷⁷ However, the multi-year moratoriums indicate that such Base ROEs did not represent the current market cost of equity at the time of the case disposition and therefore Dr. Avera’s measurement of a risk premium at the point in time of the case disposition would also likely yield distorted results.⁸⁷⁸

312. Ms. Joe testified that Dr. Avera inappropriately applied the expected earnings approach to his electric utility national proxy group, which is in conflict with expert guidance on the use of this approach for utilities.⁸⁷⁹ Guidance by utility finance expert Dr. Roger A. Morin specifies that the comparable earnings approach should be applied only to a comparable risk group of unregulated companies in order to estimate a utility’s current market cost of equity.⁸⁸⁰ According to Ms. Joe, Dr. Avera’s application of the approach to a sample of utilities results in circular rate-making and perpetuates established allowed ROEs rather than estimating the current market cost of equity.⁸⁸¹

313. Ms. Joe explained that the expected earnings approach (comparable earnings approach) is an accounting-oriented approach to estimating the cost of equity, in contrast to a market-oriented approach for estimating the cost of equity.⁸⁸² The use of expected earnings results as a benchmark for informing placement of the Base ROE under anomalous market conditions was affirmed in Opinion No. 531-B at paragraphs 120-132.

314. Ms. Joe cited Dr. Morin to explain how an expected earnings approach should be conducted to estimate a utility’s cost of equity:⁸⁸³

To implement the Comparable Earnings standard, three steps are required. First, a sample of unregulated companies of reasonably comparable risk is developed. Second, an appropriate time period over which book rates of return on equity are measured is chosen. Third, the result is adjusted for

⁸⁷⁵ *Id.*

⁸⁷⁶ *Id.*

⁸⁷⁷ *Id.*

⁸⁷⁸ *Id.* at 96-97.

⁸⁷⁹ *Id.* at 98 (see Ex. NET-1300 at 38).

⁸⁸⁰ *Id.*

⁸⁸¹ *Id.*

⁸⁸² *Id.*

⁸⁸³ *Id.* at 99-100 (citing *New Regulatory Finance* at 382).

any risk differential between the sample of unregulated companies and the utility, to the extent that such a differential exists.

The rationale supporting the approach and the requirement to use a sample of unregulated companies is based on the fact that the profitability of unregulated companies is set by the free forces of competition.⁸⁸⁴

315. Ms. Joe testified that Dr. Avera did not use a sample of unregulated companies for his “Expected Earnings/Proxy Group” analysis resulting in an ROE estimate of 11.44 percent (Complaint III study period) and 12.58 percent (Complaint II study period).⁸⁸⁵ She explained that by using Value Line estimates of projected earnings for his National Group proxy group, Dr. Avera’s approach is premised on already established ROEs extrapolated into the future by Value Line.⁸⁸⁶ According to Ms. Joe, a circular road map has been developed by this approach.⁸⁸⁷

316. Ms. Joe testified that Dr. Avera’s Expected Earnings/Industry proxy group is based on his same flawed use of a sample of regulated electric utilities in the Value Line Utility industry group. She also explained that because Dr. Avera uses the entire Value Line-recognized electric utility industry, it fails the comparable earnings standard requiring use of only comparable risk companies.⁸⁸⁸

317. Ms. Joe testified that for his risk premium analyses of State ROEs, Dr. Avera replicated his risk premium approach on Commission ROEs, but substituted State ROEs authorized between 1974 and 2014.⁸⁸⁹ She believes that because the methods used by the various states to determine allowed ROEs is unknown, Dr. Avera’s presumption that State ROEs represent the best estimates of the market cost of equity is not supported.⁸⁹⁰

318. Ms. Joe explained that Opinion No. 531-B affirmed the consideration of State ROEs as a benchmark to inform the placement of the Base ROE in Complaint I.⁸⁹¹ She stated that the Commission considered evidence on the greater risk of transmission relative to state-authorized distribution service.⁸⁹²

319. Ms. Joe testified that Ms. Lapson examined two years’ worth of past authorized state ROEs for her “Integrated Electric Utilities” group and her “All Electrics” group. Ms. Lapson testified that the NETOs are most comparable in risk to her “Integrated

⁸⁸⁴ *Id.* at 100.

⁸⁸⁵ *Id.* (citing Ex. NET-1300 at 37-39; Ex. NET-1302 at 1; NET-1313 at 1).

⁸⁸⁶ *Id.* at 100-101.

⁸⁸⁷ *Id.* at 101.

⁸⁸⁸ *Id.* at 102.

⁸⁸⁹ *Id.* at 103.

⁸⁹⁰ *Id.*

⁸⁹¹ *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 84, 88).

⁸⁹² *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 85).

Electric Utilities” group rather than her “All Electrics” group.⁸⁹³ However, Ms. Joe believes Ms. Lapson appears to have forgotten that the unadjusted Base ROE in this proceeding only applies to NETOs’ LNS, which is generally transmission service below 69 kV.⁸⁹⁴ RNS transmission and interstate incentive transmission projects receive basis point adders of 50-175 bp to the Base ROE.⁸⁹⁵ Hence, Ms. Joe finds that Ms. Lapson’s arguments for upward adjustment of the Base ROE from the midpoint based on transmission service risks relative to distribution service risks appear to ignore the facts of automatic higher ROEs accorded to NETOs RNS transmission service.⁸⁹⁶

320. Ms. Joe testified that Ms. Lapson criticized Dr. Woolridge’s evaluation of NETOs’ risk and substituted her own evaluation by using inappropriate credit rating methods and assumptions.⁸⁹⁷ First, Ms. Lapson stated that “the heart of the problem is that NETOs include entities that do not have Moody’s and S&P credit ratings.”⁸⁹⁸ Consequently, she faults Dr. Woolridge for (1) assigning certain unrated subsidiaries the same rating as their parent; and (2) eliminating unrated entities from his calculation of NETOs’ average credit risk.⁸⁹⁹ Ms. Lapson also said that “no rational fixed income investment analyst or lender” would do that.⁹⁰⁰ Ms. Joe explained that in determining the risk of the NETOs specifically, the Commission in Opinion No. 531 stated at note 209: “We note that the credit rating bands are based on only those NETOs that have credit ratings from S&P and Moody’s.” Thus, Ms. Joe concluded that the Commission ignored unrated entities in establishing credit rating risk for the NETOs in Opinion No. 531 and Dr. Woolridge was correct in doing so as well.⁹⁰¹ Second, Ms. Joe explained that Commission precedent and standard policy of the S&P rating service is to use the credit rating of the publicly traded parent when there is no evidence that the subsidiary has a different stand-alone business and financial risk.⁹⁰² Thus, Ms. Joe argues, Ms. Lapson’s criticisms and revisions of Dr. Woolridge’s average credit rating assessment for the NETOs should be rejected.⁹⁰³

5. NETOs Cross-Answering Testimony

⁸⁹³ *Id.* at 104 (see Ex. NET-1400 at 42-43).

⁸⁹⁴ *Id.*

⁸⁹⁵ *Id.* at 104-105.

⁸⁹⁶ *Id.* at 105.

⁸⁹⁷ *Id.* at 106.

⁸⁹⁸ *Id.* (citing Ex. NET-1400 at 29).

⁸⁹⁹ *Id.* (citing Ex. NET-1400 at 29-30).

⁹⁰⁰ *Id.* (citing Ex. NET-1400 at 30).

⁹⁰¹ *Id.*

⁹⁰² *Id.* at 106-107 (see, e.g., *Potomac-Appalachian Transmission Highline, LLC*, FERC ¶ 61,188 at P 98 (2008)).

⁹⁰³ *Id.* at 107.

321. NETOs sponsored the cross-answering testimony of Dr. Avera and Ms. Lapson to respond to the Direct and Answering Testimony of Staff witness Ms. Joe.

5.1 Dr. Avera

322. The purpose of Dr. Avera's cross answering testimony is to address the direct and answering testimony of Sabina U. Joe, submitted on behalf of the Trial Staff of the Commission concerning the Base ROE and range of reasonableness for the NETOs for the Complaint II and Complaint III periods.

323. Dr. Avera pointed out that the existing base ROE for the July 31, 2014 through October 15, 2015 period is 11.14%, whereas the existing base ROE for the balance of the Complaint III Refund Period and for the Prospective Period is 10.57%, as determined in Opinion No. 531.⁹⁰⁴ The Commission ruled that the base ROE for the Complaint III Refund Period and the Prospective Period should be based on the most recent data available at the time of the hearing.⁹⁰⁵ Dr. Avera refers to the existing 11.14% and 10.57% base ROEs as the "Existing ROE."⁹⁰⁶

324. Dr. Avera testified that in Opinion No. 531, the Commission acknowledged that two-step DCF estimates may be distorted by anomalous capital market conditions. This limitation can reduce the Commission's confidence in its traditional, midpoint DCF analysis.⁹⁰⁷ Duff & Phelps echoed these conclusions, noting that, "The limitations of the methods commonly used to estimate the cost of capital have been magnified in the wake of the economic turbulence of the last Financial Crisis."⁹⁰⁸ Dr. Avera explained that the paramount consideration that must be reflected in the choices of a point estimate ROE is the need to ensure that the end result meets the standards mandated by the Supreme Court to ensure that a utility can attract capital.⁹⁰⁹ This determination requires the Commission to consider the available evidence and identify an ROE that is just, reasonable, and sufficient to support the NETOs' ability to attract capital and earn a competitive return while serving the policy goal of encouraging investment in transmission infrastructure.⁹¹⁰ It was with these same considerations in mind that the Commission, in Opinion No. 531, rejected a "mechanical application" of the DCF model and found it necessary to examine evidence of alternative benchmark methodologies and state commission-approved ROEs "to gain insight into the potential impacts of these unusual capital market conditions" on

⁹⁰⁴ Ex. NET-1500 at 2-3.

⁹⁰⁵ *Id.* at 3.

⁹⁰⁶ *Id.*

⁹⁰⁷ *Id.* at 6.

⁹⁰⁸ *Id.* (citing www.duffandphelps.com/expertise/Pages/Cost_of_Capital.aspx).

⁹⁰⁹ *Id.* at 7 (citing *Bluefield*, 262 U.S. at 693; *Hope*, 320 U.S. at 603).

⁹¹⁰ *Id.*

the IBES-based DCF results.”⁹¹¹

325. Dr. Avera explained that utilities and their investors must commit huge sums of money and are exposed to a variety of substantial risks when they invest in electric utility transmission infrastructure.⁹¹² He testified that investors’ expected ROE is the key economic signal that allocates finite capital among competing opportunities.⁹¹³ The allowed ROE and a reasonable opportunity to earn it are the primary lynchpins in determining the flow of investment capital to new transmission facilities.⁹¹⁴ Investment in transmission also must compete with alternative uses, and the additional funding necessary to expand the transmission grid will only be allocated if investors anticipate an opportunity to earn a return that is sufficient to compensate for the associated risks.⁹¹⁵ Dr. Avera cited to a report from the investment community to reinforce his point:⁹¹⁶

The degree to which a utility revises its transmission capital plan will depend on expected returns. . . . Material reductions in the base ROE could lower the quality of and divert capital away from the transmission business, given its generally riskier profile than that for state-regulated utility businesses, such as distribution and generation. Moreover, investors could deploy capital to infrastructure projects with higher allowed returns, such as FERC-regulated natural gas pipelines, or to other industries generally.

326. Dr. Avera testified that in order to address the requirements of section 219 of the Federal Power Act (“FPA”), in which Congress recognized the linkage between ROE and transmission investment, the Commission established policies designed to achieve greater grid reliability and lower-cost electric power for customers by encouraging increased transmission infrastructure investment.⁹¹⁷ FERC’s Order Nos. 679 and 679-A specifically recognized this legislative mandate and in November 2012, the Commission reaffirmed its policy to promote capital investment in light of the substantial challenges faced by utilities in constructing new transmission projects.⁹¹⁸ The Commission has noted that transmission projects must compete for capital, and that the ROE provides an effective tool to foster new investments and advance policy objectives.⁹¹⁹ The Commission has further recognized the need to support wholesale power markets by adjusting its methods and instituting reforms in response to changed circumstances, as exemplified by Order No. 1000, the recent Commission rulemaking which established new requirements for

⁹¹¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

⁹¹² *Id.* at 8.

⁹¹³ *Id.*

⁹¹⁴ *Id.*

⁹¹⁵ *Id.* at 9.

⁹¹⁶ *Id.* (citing Wolfe Research, *FERConomics: Risk to Transmission Base ROEs in Focus*, Utilities & Power, June 11, 2013).

⁹¹⁷ *Id.*

⁹¹⁸ *Id.* at 9-10

⁹¹⁹ *Id.* at 10.

electric transmission planning and cost allocation.⁹²⁰ Consistent with Order No. 1000 and Opinion No. 531, evaluating the base ROE of the NETOs against alternative measures of the zone of reasonableness and considering the results of well-accepted ROE benchmarks provides the Commission with the flexibility to ensure a reasonable end result that does not undermine its policy objectives.⁹²¹

327. Dr. Avera confirmed that Commission policies supporting grid investment are bearing fruit, but warned that absent a commitment to follow through on expectations for ROEs that are competitive with alternative investment opportunities, the flow of capital into transmission infrastructure may not continue.⁹²² He testified that prior to the Commission's policy initiatives, concerns regarding the need to encourage further investment in the transmission were widespread, as the Commission observed in Order No. 679.⁹²³

[I]nvestment in transmission facilities in real dollar terms declined significantly between 1975 and 1998. Although the amount of investment has increased somewhat in the past few years, data for the most recent year available, 2003, shows investment levels still below the 1975 level in real dollars. This decline in transmission investment in real dollars has occurred while the electric load using the nation's grid more than doubled. Further, the record shows that the growth rate in transmission mileage since 1999 is not sufficient to meet the expected 50 percent growth in consumer demand for electricity over the next two decades.

Dr. Avera also cited the financial firm UBS, which observed the following with respect to ROEs for FERC jurisdictional transmission:⁹²⁴

We believe companies will redeploy capital elsewhere if transmission returns are materially reduced. In our view, the cost of capital could actually increase, because as returns are set lower, valuation multiples will also be reset much lower than current levels. Additionally, the second order effects on other state and Federal government policy objectives, i.e., renewables development, could be significant in our view.

328. Dr. Avera testified that investors look for supportive regulatory policy when they consider the kind of long-term commitments of capital that electric transmission projects require.⁹²⁵ He reasoned that it is important that the Commission avoid diverging from the

⁹²⁰ *Id.*

⁹²¹ *Id.*

⁹²² *Id.* at 11.

⁹²³ *Id.* at 12 (citing Order No. 679, 116 FERC ¶ 61,057 at P 10 (footnote omitted)).

⁹²⁴ *Id.* (citing UBS Investment Research, "Transmission: CTRL + Z?," *US Electric Utilities & IPPs* (May 3, 2012)).

⁹²⁵ *Id.*

course of promoting a sound and stable environment for transmission investment.⁹²⁶ He stated that if the Commission curtails its policy support by significantly reducing ROEs, as Ms. Joe recommends, it will be difficult to restore investors' confidence, and that, in turn, will have both negative consequences for the availability of capital for transmission investment and increase the cost of capital for transmission owners throughout the nation.⁹²⁷

329. Dr. Avera testified that a mechanical and static policy of establishing ROEs based only on certain statistical characteristics of a particular DCF range would leave the Commission with little flexibility when the record evidence showed that the indicated result fails to reflect a just and reasonable ROE, or is inadequate to support established policy goals.⁹²⁸ Such a rigid regulatory approach would be impractical and destabilizing.⁹²⁹ He cited how Wolfe Research recently noted that unsupportive regulatory policies represent a "real risk for transmission owners," and concluded, "We fear the uncertainty over transmission ROEs could fester."⁹³⁰

330. Dr. Avera explained that transparency and stability are important tenets of utility ratemaking.⁹³¹ The Commission has stated that it "strives to provide regulatory certainty through consistent approaches and actions."⁹³² With respect to ROE in particular, the Commission has recognized the potential disincentive to investment stemming from uncertainties over the administrative process leading to a determination of a fair ROE. In Opinion No. 531, for example, the Commission recognized the dangers associated with a dramatic reduction in the authorized ROE, finding that a decrease from the then-existing ROE of 11.47% in that proceeding to the midpoint of its DCF range (9.39%) "could undermine the ability of the [utilities] to attract capital for new investment."⁹³³ The ROE reductions recommended by Ms. Joe in this proceeding are of similar or greater magnitude than the reduction rejected in Opinion No. 531.⁹³⁴

331. Dr. Avera testified that bond yields and interest rates indicate that conditions are largely identical to those prevailing during the evidentiary period in Complaint I, which served as the basis for the 10.57% base ROE and 11.74% high end established in Opinion

⁹²⁶ *Id.*

⁹²⁷ *Id.* at 12-13.

⁹²⁸ *Id.* at 13.

⁹²⁹ *Id.*

⁹³⁰ *Id.* (citing Wolfe Research, "Don't you FERCEd about ROE, Don't Don't Don't Don't!," *Utilities & Power* (Apr. 6, 2015)).

⁹³¹ *Id.* at 14.

⁹³² *Id.* (citing About FERC, Federal Energy Regulatory Commission, <http://www.ferc.gov/about.asp> (last visited Mar. 30, 2015)).

⁹³³ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 150).

⁹³⁴ *Id.*

No. 531.⁹³⁵ Dr. Avera explained that, in other words, there is no economic justification to support Ms. Joe's claim that a just and reasonable base ROE for the NETOs has somehow fallen dramatically since the Commission made its determination of a just and reasonable base ROE for the NETOs less than one year ago.⁹³⁶

332. Dr. Avera testified that Ms. Joe cavalierly dismissed the negative implications of her extreme recommendations, implying that the credit rating agencies and investors are unconcerned over reductions to allowed ROEs.⁹³⁷ While a moderate and gradual downturn in ROEs may not pose an immediate threat to the cash flow protection underlying a utility's credit ratings, it has an immediate, negative impact on returns to common stockholders.⁹³⁸ He characterized Ms. Joe's recommendations in this proceeding as extreme and entirely divorced from the moderate and gradual trends in actual allowed ROEs that underpin the Moody report that she cites.⁹³⁹ He explained that the average state-allowed ROE for electric utilities reported by Regulatory Research Associates declined by 10 basis points from 2013 to 2014,⁹⁴⁰ yet Ms. Joe's proposals represent one-time reductions to the existing ROE of over 15 times this amount.⁹⁴¹ According to Dr. Avera, there is simply no comparison between Ms. Joe's recommended base ROEs and the benchmark provided by state-allowed ROEs that were considered by the Moody's report, which also cited "a more contentious regulatory environment" as a "material credit negative."⁹⁴²

333. Dr. Avera explained that the cuts to the Existing base ROE urged by Ms. Joe range from 185 basis points for the Complaint II Period to 154 basis points for the Complaint III Period, and that at these levels, the base ROE for the NETOs would be lower than all but three of the 124 state-approved ROEs in the nation established since 2012, and well below the 9.39% rejected in Opinion No. 531 as too low to satisfy the requirements of *Hope* and *Bluefield*.⁹⁴³

334. Dr. Avera explained that the Commission considered a range of evidence in Opinion No. 531, including alternative methods to the two-step DCF model, to determine whether it should apply its traditional policy of setting the base ROE at the midpoint of the range of DCF estimates produced for the proxy group.⁹⁴⁴ The results of alternative

⁹³⁵ *Id.* at 15.

⁹³⁶ *Id.*

⁹³⁷ *Id.* at 17.

⁹³⁸ *Id.* at 18.

⁹³⁹ *Id.*

⁹⁴⁰ Regulatory Research Associates, *Regulatory Focus* (Jan. 15, 2015).

⁹⁴¹ *Id.*

⁹⁴² *Id.* (citing Moody's Investors Service, "Lower Authorized Equity Returns Will Not Hurt Near-term Credit Profiles," *Sector In-Depth* (Mar. 10, 2015)).

⁹⁴³ *Id.* at 19.

⁹⁴⁴ *Id.* at 20.

methodologies demonstrated that, due to the impact of anomalous market conditions on the IBES-based DCF results in that record, the Commission should depart from its traditional approach of setting the base ROE at the midpoint of the DCF range.⁹⁴⁵ Based on the case-specific evidence in that proceeding, the Commission determined that a joint estimate at the middle of the upper end of the DCF range represented a just and reasonable ROE.⁹⁴⁶

335. Dr. Avera disagreed with Ms. Joe's contention that the Commission did not find that the DCF results were impacted by anomalous capital market conditions in Opinion No. 531.⁹⁴⁷ He found her interpretation of the language of that opinion to be in stark contrast with the Commission's actions.⁹⁴⁸ In adopting the two-step DCF model used for natural gas/oil pipelines for electric utilities, the Commission concluded that, while this method was "preferable to the one-step DCF methodology, ... any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions."⁹⁴⁹ At this portion of Opinion No. 531, Dr. Avera explained that the Commission was *not* addressing whether anomalous capital market conditions were present *in that case*.⁹⁵⁰ That came later.⁹⁵¹ However, he explained, Ms. Joe apparently took this general statement to mean that the Commission did not actually determine that the results of the two-step DCF model were, in fact, impacted by underlying anomalies in the capital markets.⁹⁵² Dr. Avera thinks this interpretation deviates sharply from reality and marks a fundamental misunderstanding of the Commission's findings.⁹⁵³ He explained that, much later in Opinion No. 531, at paragraph 145, the Commission addressed whether anomalous capital market conditions were present *in that case*, and stated:

We are concerned that capital market conditions in the record are anomalous, thereby making it more difficult to determine the return necessary for public utilities to attract capital. In these circumstances, we have less confidence that the midpoint of the zone of reasonableness established in this proceeding accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards. We find it necessary and reasonable to consider additional record evidence, including evidence of alternative benchmark methodologies and state commission-approved ROEs, to gain insight into the potential impacts of

⁹⁴⁵ *Id.*

⁹⁴⁶ *Id.*

⁹⁴⁷ *Id.* at 22.

⁹⁴⁸ *Id.*

⁹⁴⁹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 41).

⁹⁵⁰ *Id.*

⁹⁵¹ *Id.*

⁹⁵² *Id.* (citing Ex. S-1 at 72).

⁹⁵³ *Id.*

these unusual capital market conditions on the appropriateness of using the midpoint.

336. Dr. Avera testified that generalized relationships in the capital markets have been profoundly affected by the Federal Reserve's unprecedented intervention in capital markets. By artificially suppressing long-term interest rates, he explained that the Federal Reserve has fundamentally affected investors' allocation of capital among asset class, as well as the relationship among required returns on alternative investments.⁹⁵⁴ This distortion was concretely recognized by the Commission in its decision to abandon a long-held policy of adjusting allowed returns based on changes in 10-year Treasury bond yields.⁹⁵⁵ As the Commission concluded, "the capital market conditions since the 2008 market collapse and the record in this proceeding have shown that there is not a direct correlation between changes in U.S. Treasury bond yields and changes in ROE."⁹⁵⁶ Dr. Avera presented evidence in his answering testimony that confirms the suppressed bond yields characterizing the record period in Docket No. EL11-66 and in this proceeding are not indicative of investors' forward looking expectations.⁹⁵⁷ This sharp disparity between recent historical experience and widespread expectations for higher interest rates is one defining characteristic of anomalous capital markets, which anticipate significant increases in capital costs as the Federal Reserve eventually moves to normalize its monetary policies.⁹⁵⁸ According to Dr. Avera, these objective, third-party forecasts, some of which are relied on by the Commission in establishing the GDP growth rate under its two-step DCF method, directly contradict Ms. Joe's personal view that the "economic data lean in favor of only modest raises in interest rates in the near-term."⁹⁵⁹

337. Dr. Avera explained that all of the factors he just described are considered by investors and built into the market prices of utility stocks, but that these anomalous conditions are not accounted for in the DCF results.⁹⁶⁰ This is because the market prices of utility common stocks are the only observable input to the DCF formula, which requires estimates of investors' expectations as to dividend payments over the coming year and future growth.⁹⁶¹ The two-step DCF model applied by the Commission posits a recipe for this unobservable growth based on a specific combination of IBES earnings growth rates and long-term projections for GDP growth, but this assumption is untested.⁹⁶² Individual IBES values may not reflect the higher growth expectations underlying increases in stock prices, investors may not consider long-term projections of

⁹⁵⁴ *Id.* at 24-25.

⁹⁵⁵ *Id.* at 25.

⁹⁵⁶ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 158).

⁹⁵⁷ *Id.* (citing NET-1300 at 23-24, 74-75).

⁹⁵⁸ *Id.*

⁹⁵⁹ *Id.* at 25-26 (citing Ex. S-1 at 79).

⁹⁶⁰ *Id.* at 26.

⁹⁶¹ *Id.*

⁹⁶² *Id.* at 26-27.

GDP growth 20-50 years in the future as a guide to what they are likely to earn on their investment in utility stocks, and dividend yields may be impacted by transitory considerations related to the Federal Reserve's unprecedented monetary policies.⁹⁶³ To the extent that any or all of these factors depart from the long-term views of utility investors, the resulting DCF estimates will not accurately reflect the cost of equity.⁹⁶⁴ Additionally, Dr. Avera continued, while dividend payments for utilities are reasonably stable and predictable, even the measurement of the dividend yield component of the DCF formula is not above controversy.⁹⁶⁵ Consequently, he explained, while we can observe the end-result of our best attempt to apply the DCF model in a way that mirrors investors' expectations, there are many exogenous factors that ultimately influence DCF estimates, and the growth estimates published by one service, such as IBES, can often differ markedly from estimates published by another service, such as Value Line.⁹⁶⁶ In any event, the Commission has recognized that whatever complexity may be involved does not absolve the DCF values from critical evaluation, both against observable benchmarks such as bond yields and the results of other methods and approaches, and most importantly, the *Hope* and *Bluefield* standards.⁹⁶⁷

338. Dr. Avera testified that a collateral consequence of anomalous capital market conditions is their impact on the screening of DCF results.⁹⁶⁸ He explained that Ms. Joe used a static 100 basis point spread over a historical bond yield benchmark to evaluate low-end values in her DCF analyses, but these anomalously low interest rates do not reflect expectations for the future, which is the goal of the DCF model and the critical consideration when evaluating investors' required return.⁹⁶⁹ Moreover, he explained that reference to a static 100-basis point threshold incorrectly assumes that equity risk premiums are constant, regardless of prevailing interest rates.⁹⁷⁰ There is considerable empirical evidence that when interest rates are relatively high, equity risk premiums narrow, and when interest rates are relatively low, equity risk premiums expand.⁹⁷¹ This inverse relationship between equity risk premiums and interest rates is documented in Dr. Avera's risk premiums studies⁹⁷² and has been widely reported in the financial literature.⁹⁷³ With interest rates remaining at historic lows, Dr. Avera thinks Ms. Joe's practice of retaining low-end DCF values on a strict, 100 basis point test causes the range of DCF estimates to be skewed downward and amounts to nothing more than an exercise

⁹⁶³ *Id.* at 27.

⁹⁶⁴ *Id.*

⁹⁶⁵ *Id.*

⁹⁶⁶ *Id.*

⁹⁶⁷ *Id.*

⁹⁶⁸ *Id.* at 28.

⁹⁶⁹ *Id.*

⁹⁷⁰ *Id.*

⁹⁷¹ *Id.*

⁹⁷² See (Exs. NET-1305, NET-1309, NET-1311, NET-16, NET-20, and NET-22).

⁹⁷³ Ex. NET-1500 at 28-29.

in arithmetic, with no regard for the reasonableness or logic of the end result.⁹⁷⁴

Furthermore, he explained, interest rates are artificially suppressed because of Federal Reserve policies designed to address underlying uncertainties and risks in the economy, which in turn increases the importance of recognizing the expansion of the risk premium in the current low-rate environment.⁹⁷⁵

339. Dr. Avera testified that, contrary to explicit guidance provided in Opinion No. 531, Ms. Joe relies on rote applications of the DCF model and ignores alternative benchmarks that could serve as a check on the validity of her DCF results.⁹⁷⁶ In addition to emphasizing the need to consider additional evidence when capital market conditions call into question the reasonableness of a DCF midpoint, the Commission in Opinion No. 531 observed that “there may be more than one valid source of growth rate estimates,”⁹⁷⁷ and made clear in Opinion No. 531-B that it had rejected alternatives to IBES only because they were inconsistently applied in the record in that case.⁹⁷⁸ He also stated that, apart from ignoring well-accepted ROE benchmarks, Ms. Joe’s mechanical application of the DCF model gave no consideration to the use of alternative analysts’ projected growth rates as an input to the DCF model, despite the availability of such data from Value Line, which is a widely-regarded source on which the Commission has relied in estimating investors’ expectations.⁹⁷⁹

340. Dr. Avera testified that a fundamental fallacy underlying Ms. Joe’s contention that the record in Docket No. EL11-66 “contained virtually no information about equity capital market conditions” is her apparent belief that the capital market is divided into two distinct pools – one for debt and another for equity.⁹⁸⁰ He explained that all investment opportunities compete with one another for investors’ capital, and the broad economic and financial considerations that impact the valuation of debt securities are also relevant in the evaluation of common stock investments.⁹⁸¹ As a result of this interrelationship, information concerning investors’ expectations as to the general economy, Federal Reserve actions, interest rate trends, risk perceptions and other financial market data examined throughout the long course of Docket No. EL11-66 cannot be parsed between “focused on interest rates” and “equity capital market conditions,” as Ms. Joe wrongly suggests.⁹⁸² Moreover, application of the DCF model and the alternative benchmarks presented in Dr. Avera’s testimony in Docket No. EL11-66 and referenced by the Commission in Opinion No. 531 were directly focused on the

⁹⁷⁴ *Id.* at 29.

⁹⁷⁵ *Id.*

⁹⁷⁶ *Id.* at 30.

⁹⁷⁷ Opinion No. 531, 147 FERC ¶ 61,234 at P 90.

⁹⁷⁸ Ex. NET-1500 at 30 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 76).

⁹⁷⁹ *Id.*

⁹⁸⁰ *Id.* at 31.

⁹⁸¹ *Id.*

⁹⁸² *Id.*

expectations of common equity investors and considered then-current capital market information.⁹⁸³ Similarly, his testimony and the testimony of Ms. Lapson in that case concerned itself with the expectations of equity investors and the implications of capital market conditions on their required rate of return, and voluminous publications of equity analysts were discussed and entered into evidence by all parties.⁹⁸⁴

341. Dr. Avera testified that Ms. Joe's "new evidence" concerning conditions in the market for equity capital amounts to nothing more than the simplistic observation that utility stock prices have increased.⁹⁸⁵ He states that her claim that rising trends in utility stock prices "signal a major change in capital market conditions,"⁹⁸⁶ which in her view apparently nullifies all of the evidence considered in the record underlying Opinion No. 531, is a gross overstatement and mischaracterization.⁹⁸⁷ Dr. Avera used a graphic to show that gains in utility stocks over the past five years have lagged the market as a whole, as represented by the S&P 500.⁹⁸⁸ As of April 17, 2015, year-to-date the Dow Jones Utility Average ("DJU") had declined approximately 5.63% in value, against a 1.1% gain for the S&P 500.⁹⁸⁹

342. According to Dr. Avera, Ms. Joe's reference to the "75th Percentile" value from her range of the DCF results is baseless.⁹⁹⁰ While Opinion No. 531 in one instance referred to the midpoint of the upper end of the range as the "75th percentile,"⁹⁹¹ the Commission did not determine the 10.57% allowed Roe based on a reference to percentiles and rejected this approach in Opinion No. 531-B.⁹⁹² He explained that percentile refers to the percentage of observations in the distribution that are the same or lower.⁹⁹³ For example, a DCF estimate that is greater than or equal to 75% of the remaining values is said to be at the 75th percentile.⁹⁹⁴ This percentile ranking is entirely distinct from, and inconsistent with, the midpoint of the upper end of the DCF zone used by the Commission to establish the NETOs' base Roe in Opinion No. 531.⁹⁹⁵ Ms. Joe's 75th percentile values of 9.19% (EL13-33) and 9.16% (EL14-86) are also lower than the 9.39% midpoint value rejected by the Commission.⁹⁹⁶ Dr. Avera testified that, rather than

⁹⁸³ *Id.*

⁹⁸⁴ *Id.* at 31-32.

⁹⁸⁵ *Id.* at 32.

⁹⁸⁶ Ex. S-1 at 74-75.

⁹⁸⁷ Ex. NET-1500 at 32.

⁹⁸⁸ *Id.* at 33.

⁹⁸⁹ *Id.*

⁹⁹⁰ *Id.* at 34.

⁹⁹¹ Opinion No. 531, 147 FERC ¶ 61,234 at Appendix.

⁹⁹² Ex. NET-1500 at 34.

⁹⁹³ *Id.*

⁹⁹⁴ *Id.*

⁹⁹⁵ *Id.*

⁹⁹⁶ *Id.*

accepting the Commission's guidance to critically evaluate DCF estimates in light of current capital market conditions and against the results of specified benchmark analyses, Ms. Joe's reference to the 75th percentile suggests another mechanical, arithmetic exercise that has no support in Commission precedent.⁹⁹⁷

343. Dr. Avera testified that Ms. Joe's suggestion that reliance on the midpoint is supported by the NETOs' relative risks is not an accurate assessment of current FERC policy.⁹⁹⁸ The Commission's determination in Opinion No. 531 that a base ROE form the upper end of the DCF zone was warranted had nothing whatsoever to do with the risk of the NETOs relative to the proxy group.⁹⁹⁹ Rather, it was predicated on the well-established requirement that the end-result of the Commission's deliberations must meet economic and regulatory standards.¹⁰⁰⁰

344. Dr. Avera explained that the Commission has recognized that state approved ROEs provide another logical benchmark to evaluate the reasonableness of recommended base ROEs.¹⁰⁰¹ With respect to the utilities in Ms. Joe's proxy group, the approved ROEs currently reported to investors by Value Line fall in a range of 9.15% to 13.02%, with a midpoint of 11.09%.¹⁰⁰² Even omitting the FERC-approved ROEs for ITC Holdings Corp. ("ITC"), the reported range is 9.15% to 12.50%, with the midpoint being 10.83%.¹⁰⁰³ Meanwhile, Ms. Joe's 8.72% and 9.03% base ROE values fall *below the bottom* of the range of state allowed ROEs.¹⁰⁰⁴ Dr. Avera finds this to be a clearly illogical result, given that the Commission's conclusion that investment in local electric distribution is less risky than investment in federally-regulated transmission.¹⁰⁰⁵

345. Dr. Avera testified that even the midpoint of the upper half of Ms. Joe's DCF ranges in this case (9.56% and 10.25%) are below or barely commensurate with alternative benchmarks.¹⁰⁰⁶ Should the Commission determine that an adjustment to the existing ROE is warranted in this case, Dr. Avera believes the weight of empirical evidence shows that any new, just and reasonable ROE for the NETOs must be substantially higher than the IBES-based DCF midpoint and higher than the upper-end midpoint of that range.¹⁰⁰⁷

⁹⁹⁷ *Id.*

⁹⁹⁸ *Id.* at 35.

⁹⁹⁹ *Id.*

¹⁰⁰⁰ *Id.*

¹⁰⁰¹ *Id.* at 36.

¹⁰⁰² *Id.* (see Ex. NET-1501).

¹⁰⁰³ *Id.*

¹⁰⁰⁴ *Id.*

¹⁰⁰⁵ *Id.*

¹⁰⁰⁶ *Id.* at 37.

¹⁰⁰⁷ *Id.*

346. Dr. Avera disagrees with Ms. Joe's elimination of a number of companies due to involvement in mergers and acquisitions, despite the fact that there is no evidence of distortion to the inputs of the DCF model.¹⁰⁰⁸ Dr. Avera explained that the Commission has previously rejected the notion that a merger or acquisition requires *per se* that a firm be excluded from the proxy group, and has included companies involved in a merger where there is no evidence that the data used to supply the DCF approach is distorted.¹⁰⁰⁹

347. Dr. Avera asserted that Ms. Joe runs afoul of Commission precedent for the Complaint II refund period when she argues that ITC should be eliminated from the proxy group as a result of its merger/spinoff agreement with Entergy Corporation ("Entergy"), which was announced in December 2011.¹⁰¹⁰ He stated that this transaction was terminated well before the end of the Complaint II Period, and there is no evidence of any distortion attributable to the transaction.¹⁰¹¹ Accordingly, Dr. Avera believes ITC should be retained in the proxy group.¹⁰¹²

348. Dr. Avera testified that there is no evidence to support Ms. Joe's claim that ITC's earnings growth rate or stock price was distorted by the abandoned transaction with Entergy. He stated that the analysts' growth estimates reflected in Ms. Joe's DCF analysis were obtained over three months after the termination of the merger agreement. As a result, Dr. Avera believes there is no basis for Ms. Joe's claim that these forward-looking growth forecasts were somehow distorted by a transaction that was well in the rear-view mirror, and where the outcome was plainly disclosed to the securities analysts surveyed by Thomson Reuters.¹⁰¹³

349. Dr. Avera identified other firms in Ms. Joe's proxy group that experienced earnings fluctuations as a result of isolated transactions or other events. He does not fault Ms. Joe for including these firms in her proxy group. His criticism lies with her myopic focus on ITC – which happens to set the top end of the zone under the IBES-based DCF analysis for the Complaint II Refund Period – when its circumstances are indistinguishable from other utilities she includes in her proxy group.¹⁰¹⁴ Dr. Avera asserts that, considering the transaction with Entergy was abandoned long before the growth rates referenced in this proceeding were sourced, securities analysts' and investors were fully informed of the cancellation and its impacts.¹⁰¹⁵ Given the similar circumstances faced by other utilities included in Ms. Joe's own proxy group, Dr. Avera can see no justifiable basis to exclude ITC when evaluating a fair ROE for the Complaint

¹⁰⁰⁸ *Id.* at 38.

¹⁰⁰⁹ *Id.* at 38-39.

¹⁰¹⁰ *Id.* at 39.

¹⁰¹¹ *Id.*

¹⁰¹² *Id.*

¹⁰¹³ *Id.* at 40.

¹⁰¹⁴ *Id.* at 42-43.

¹⁰¹⁵ *Id.* at 43.

II period.¹⁰¹⁶

350. Dr. Avera testified that while it may be true that ITC's stock price fell 4.3% between October and December 2013, the inference that Ms. Joe draws from this simplistic comparison – that ITC's stock price was distorted by the termination announcement – is misguided.¹⁰¹⁷ First, while Ms. Joe compares the change in ITC's monthly stock price to the S&P 500, a more appropriate benchmark would be the prices of other utility stocks.¹⁰¹⁸ This reveals that the price decline for ITC was entirely consistent with industry trends, with the DJU falling 1.9% over this same period.¹⁰¹⁹ Similarly, of the 29 firms in Ms. Joe's proxy group, 18 experienced falling stock prices over the October to December period referenced by Ms. Joe.¹⁰²⁰ Many of these declines exceeded the 4.3% figure Ms. Joe references for ITC.¹⁰²¹ He also stated that there is also no evidence that the transaction with Entergy or its cancellation resulted in distortions to ITC's stock price.¹⁰²² A comparison of the average daily stock price for the 30 days prior to the termination announcement on December 13, 2013 with the 30-day average price following the transaction's cancellation reveals that ITC's share price rose 0.5%.¹⁰²³

351. Dr. Avera found what he considers to be a more plausible explanation for the decline in ITC's stock price cited by Ms. Joe. On November 12, 2013, a joint complaint was filed under Section 206 against the transmission-owning members of the Midwest Independent System Operator, Inc. (MISO), including ITC, challenging the existing regional base ROE.¹⁰²⁴ In response to the filing of this complaint, Dr. Avera testified that ITC's stock price fell 2.4% on November 12, 2013, and an additional 5.8% on the following day.¹⁰²⁵ Meanwhile, on December 13, 2013 when termination of the merger with Entergy was announced, ITC's stock rose by a modest .7%.¹⁰²⁶ It is apparent to Dr. Avera that the fall in ITC's stock price that Ms. Joe attributes to the merger termination in fact coincided with the Section 206 complaint against the MISO transmission owners, and provided further evidence of investors' focus and concerns regarding Commission actions affecting base ROEs for transmission.¹⁰²⁷

352. Dr. Avera explained that S&P's decision to upgrade ITC stemmed primarily from

¹⁰¹⁶ *Id.*

¹⁰¹⁷ *Id.*

¹⁰¹⁸ *Id.* at 43-44.

¹⁰¹⁹ *Id.* at 44.

¹⁰²⁰ *Id.*

¹⁰²¹ *Id.* (see Ex. NET-1502).

¹⁰²² *Id.*

¹⁰²³ *Id.*

¹⁰²⁴ *Id.*

¹⁰²⁵ *Id.* at 44-45.

¹⁰²⁶ *Id.* at 45.

¹⁰²⁷ *Id.*

an earlier revision to its overall corporate criteria on November 19, 2013.¹⁰²⁸ This revision led S&P to place the ratings of 56 other entities besides ITC on “Watch Positive,” indicating the potential for a future increase in ratings.¹⁰²⁹ S&P simply noted that ITC’s planned acquisition of Entergy’s transmission system was consistent with its overall growth strategy and, just as telling, after the transaction as cancelled S&P made no comment or alteration to ITC’s credit standing or outlook.¹⁰³⁰ Dr. Avera testified that in Opinion No. 531, the Commission noted that elimination of a proxy company based on merger or acquisition activity is contingent on a demonstration that the transaction results in a distortion of the DCF inputs, and the Commission specifically ruled out excluding proxy firms without a concrete showing that the transaction “impacted the DCF results by distorting the companies’ stock prices, dividends, or growth rates.”¹⁰³¹ According to Dr. Avera, Ms. Joe has provided no such evidence.

353. Dr. Avera testified that ITC establishes the top end of the IBES-based DCF zone, at 11.31%, and excluding ITC from Ms. Joe’s proxy group had the effect of lowering the high end of the zone of reasonableness to 10.39%.¹⁰³² Because the midpoint is calculated as the average of the low and high ends of the DCF range, excluding ITC resulted in a downward bias in the midpoint statistic reported by Ms. Joe.¹⁰³³ Other statistics dependent on the upper end value (*e.g.*, the midpoint of the upper end of the DCF range) are similarly distorted.¹⁰³⁴

354. Dr. Avera explained that the Commission has established incentive-based ROE adders to foster investment in transmission facilities, but that under current Commission policy, the incentive adder will not be implemented in full if the total ROE exceeds the top of the zone of reasonableness established by the IBES-based DCF.¹⁰³⁵ He stated that Ms. Joe’s exclusion of ITC would establish 10.39% as the top end of her DCF zone based on IBES growth rates for the Complaint II Refund Period.¹⁰³⁶ Her proposal implies that the total ROE – including incentive adders the Commission approved as necessary to support expanded investment – would now be capped at a level *lower* than the 10.57% base ROE determined for the NETOs less than one year ago.¹⁰³⁷ Dr. Avera testified that Ms. Joe’s proposal for the Complaint II Period implies a decline of 135 basis points from

¹⁰²⁸ *Id.* at 46.

¹⁰²⁹ *Id.* (citing Standard & Poor’s Corporation, “S&P Places 57 U.S. Corporate Issuer Ratings On Watch Positive and 15 On Watch Negative Due To Revised Criteria,” *Press Release* (Nov. 26, 2013)).

¹⁰³⁰ *Id.*

¹⁰³¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 114).

¹⁰³² *Id.* at 47.

¹⁰³³ *Id.*

¹⁰³⁴ *Id.*

¹⁰³⁵ *Id.*

¹⁰³⁶ *Id.*

¹⁰³⁷ *Id.* at 47-48.

the 11.74% upper end of the reasonable range established in Opinion No. 531, despite the fact that capital market conditions are largely unchanged.¹⁰³⁸

355. Dr. Avera testified that Ms. Joe also eliminated NorthWestern Corporation (NorthWestern) from the Complaint II proxy group based on its acquisition of 11 hydroelectric generating facilities.¹⁰³⁹ He agreed that the transaction was substantial in scale compared to the relative size of NorthWestern, but he disagreed with Ms. Joe's decision to exclude this company from her Complaint II proxy group.¹⁰⁴⁰ Prior to the purchase of the hydro assets, which were originally built to serve NorthWestern's customers and then sold as part of a now-abandoned restructuring initiative, NorthWestern was purchasing the output of these plants.¹⁰⁴¹ As a result, the reacquisition of the underlying hydro assets did not fundamentally alter NorthWestern's business.¹⁰⁴²

356. Dr. Avera had similar concerns with Ms. Joe's proxy group for the Complaint III Period. Ms. Joe again excluded NorthWestern, even though the purchase of the hydro assets was completed on November 14, 2014, which is well before the January 30, 2015 date Ms. Joe sourced the IBES growth rates used in her DCF analysis.¹⁰⁴³ As a result, Dr. Avera explained, securities analysts would have already reflected any implications of the transaction in their forward-looking estimates.¹⁰⁴⁴

357. Dr. Avera testified that Ms. Joe also excluded UIL Holdings, despite the fact that it had abandoned its attempted acquisition of Philadelphia Gas Works before the end of her Complaint III analysis.¹⁰⁴⁵ He stated that analysts and investors were well aware that this transaction had been terminated at the time Ms. Joe retrieved the growth estimates she used to apply the DCF model and there is no basis to suggest that these forward-looking estimates would be distorted.¹⁰⁴⁶ Dr. Avera testified that Ms. Joe presented no evidence that UIL's stock prices during the analysis period for Complaint III were distorted.¹⁰⁴⁷ Dr. Avera demonstrated that stock prices trends for NorthWestern and UIL Holdings mirror each other and follow the general pattern exhibited for utility stocks as a whole.¹⁰⁴⁸ He concluded that Ms. Joe's exclusion of these companies from the Complaint

¹⁰³⁸ *Id.* at 48.

¹⁰³⁹ *Id.* at 49.

¹⁰⁴⁰ *Id.*

¹⁰⁴¹ *Id.*

¹⁰⁴² *Id.*

¹⁰⁴³ *Id.* at 50.

¹⁰⁴⁴ *Id.*

¹⁰⁴⁵ *Id.*

¹⁰⁴⁶ *Id.*

¹⁰⁴⁷ *Id.* at 51.

¹⁰⁴⁸ *Id.*

III proxy group should be rejected.¹⁰⁴⁹

358. Dr. Avera considered Ms. Joe's assertions regarding IBES growth rates to a collateral attack on established Commission doctrine.¹⁰⁵⁰ He feels that she wrongly dismissed available and published data that is indicative of investors' expectations based on her own personal views as to what constitutes a valid growth rate estimate and recommends the Commission ignore her flawed approach.¹⁰⁵¹

359. Dr. Avera testified that the methodology Ms. Joe employed to calculate the dividend yield component of the two-step DCF model deviates from the dividend yield calculations adopted by the Commission in the Appendix to Opinion No. 531.¹⁰⁵² He stated that the Commission relied on the most recent quarterly dividend yield payment that was used to calculate the average six-month historical dividend yield under its two-step DCF approach.¹⁰⁵³ According to Dr. Avera, Ms. Joe deviated from Opinion No. 531 by using historical dividend information rather than the most recent available quarterly dividends during the analysis period.¹⁰⁵⁴

360. Dr. Avera explained that it is incorrect to "synchronize the average monthly stock prices with historical dividend payments," as Ms. Joe asserted, and that this methodology is actually a violation of the theory and principles underlying the DCF model.¹⁰⁵⁵ He cited *New Regulatory Finance*.¹⁰⁵⁶

[T]he appropriate dividend to use in a DCF model is the prospective dividend rather than the current dividend because an investor expects it to grow over the next year. In implementing the standard DCF model, it is the dividend that an investor who purchases the stock today expects a company to pay during the next 12 months that should be used, and not the dividend that was paid last year.

Dr. Avera testified that, apart from being inconsistent with Opinion No. 531, Ms. Joe's reliance on historical dividend payments is inconsistent with the requirements of the DCF model and skews her DCF results downward.¹⁰⁵⁷

361. Dr. Avera testified that there is no basis for the Commission to supplant IBES

¹⁰⁴⁹ *Id.*

¹⁰⁵⁰ *Id.* at 52.

¹⁰⁵¹ *Id.*

¹⁰⁵² *Id.*

¹⁰⁵³ *Id.* at 52-53.

¹⁰⁵⁴ *Id.* at 53.

¹⁰⁵⁵ *Id.*

¹⁰⁵⁶ *Id.* at 53-54 (citing Roger A. Morin, "New Regulatory Finance," *Public Utilities Reports, Inc.* at 281-282 (2006)).

¹⁰⁵⁷ *Id.* at 54.

growth rates from *Yahoo! Finance* with proprietary estimates from TROD. He stated that the Commission has never relied on this information in the past and growth estimates provided through Thomson Reuters are not immunized from potential inaccuracies. Dr. Avera explained that, as the Commission recognized in Opinion No. 531, the growth estimate used in the DCF model should reflect investors' expectations, and the IBES growth rates published by *Yahoo! Finance* are a well-recognized source of growth estimates that are widely distributed, easily obtained, and provide a consistent source that the Commission has long relied on.¹⁰⁵⁸ He stated that Ms. Joe's concerns over a search for the one "true" source of IBES growth projections are misplaced because growth rates don't obtain relevance in implementing the DCF model because of their purity according to little-known, internal protocols to one data stream among the many made available by Thomson Reuters.¹⁰⁵⁹ Instead, growth rates gain legitimacy only to the extent that they are referenced by investors and are influential to and representative of their expectations.¹⁰⁶⁰

362. Dr. Avera agrees with Ms. Joe that *Yahoo! Finance* has no special claim over other reliable or competitive sources of growth rate information. The Commission has relied on *Yahoo! Finance* as a consistent, credible source of IBES growth rates that are widely available to the investment community and provide a relevant guide to investors' expectations.¹⁰⁶¹ However, recognizing that investors are likely to consider other credible sources of information and the increasing controversy surrounding the compilation and reporting of consensus growth estimates such as those made available through Thomson Reuters, Dr. Avera's answering testimony applied the Commission's two-step DCF model using earnings growth projections from Value Line.¹⁰⁶² Value Line is a "widely-followed, independent investor service"¹⁰⁶³ and Value Line projections have been relied on by the Commission in its application of the former one-step DCF model used to evaluate the cost of equity for electric utilities.¹⁰⁶⁴

363. Dr. Avera explained that the Commission has recognized the importance of incorporating alternative growth rates in estimating the cost of equity using the DCF model, and has expressly relied on projections from both IBES and Value Line to "frame the zone of reasonableness."¹⁰⁶⁵ He stated that Value Line is recognized as being the most widely available source of investment information to investors, and its growth projections

¹⁰⁵⁸ *Id.* at 56.

¹⁰⁵⁹ *Id.* at 57.

¹⁰⁶⁰ *Id.*

¹⁰⁶¹ *Id.* at 58.

¹⁰⁶² *Id.*

¹⁰⁶³ Opinion No. 531, 147 FERC ¶ 61,234 at P 102.

¹⁰⁶⁴ Ex. NET-1500 at 58.

¹⁰⁶⁵ *Id.* at 59 (citing *S. Cal. Edison Co.*, Opinion No. 445, 92 FERC ¶ 61,070, at 61,263 (2000)).

provide a meaningful guide to investors' expectations.¹⁰⁶⁶ Value Line's detailed quarterly reports for the firms in its electric utility industry groups provide an extensive analysis underpinning the analysts' assessment of individual growth rate projections.¹⁰⁶⁷ Moreover, Value Line earnings growth rates are immune from any potential errors involved in the compilation of survey data and avoid uncertainties as to the veracity of the assumptions underlying the projected values.¹⁰⁶⁸ Value Line's practice of smoothing the base and projected values over a three year period is also designed to reduce the potential influence that a single year's result might have on the resulting growth rate.¹⁰⁶⁹ In addition to this depth of support and transparency, the analyses and reports supporting Value Line's projected earnings growth rates are updated on a scheduled basis, which removes debate about the potential "staleness" of the underlying data.¹⁰⁷⁰ Also, Value Line's sole business is to provide independent and unbiased investment guidance to its subscribers.¹⁰⁷¹ Because Value Line does not engage in securities trading or investment banking activities, there is no potential for conflicts of interest within the operating divisions of the investment firm that could arguably influence its analysts' growth estimates.¹⁰⁷² Dr. Avera opined that a DCF model using Value Line growth data can also provide an important check on the reliability of IBES-based DCF results.¹⁰⁷³

364. Dr. Avera testified that Ms. Joe advocated for a screen of illogical low-end values among the results of her DCF calculations using a rigid criterion of excluding only DCF values that were not more than 100 basis points higher than the six-month average historical yield on Baa-rated utility bonds.¹⁰⁷⁴ He stated that this mechanical approach is inconsistent with Commission policy and is illogical and unreasonable in the current capital market environment.¹⁰⁷⁵ In light of expectations for significantly higher bond yields in the near-term, he testified that this practice unquestionably skews downward Ms. Joe's proxy range of returns, and thus further highlights the need to consider alternative cost of equity benchmarks.¹⁰⁷⁶

365. Dr. Avera found no merit to Ms. Joe's suggestion that the 15.93% and 13.67% high-end values from his Value Line-based DCF analysis should be excluded as illogical. He stated that she wrongly focused only on the first-stage growth rate, without recognizing the moderating impact of the second-stage growth rate represented by

¹⁰⁶⁶ *Id.* at 59-60.

¹⁰⁶⁷ *Id.* at 60.

¹⁰⁶⁸ *Id.*

¹⁰⁶⁹ *Id.*

¹⁰⁷⁰ *Id.*

¹⁰⁷¹ *Id.*

¹⁰⁷² *Id.* at 60-61.

¹⁰⁷³ *Id.* at 61.

¹⁰⁷⁴ *Id.*

¹⁰⁷⁵ *Id.*

¹⁰⁷⁶ *Id.*

GDP.¹⁰⁷⁷ As the Commission recently noted, “the high-end outlier test is intended to screen out companies whose growth rates are unsustainably high.”¹⁰⁷⁸ Under the Commission’s two-step DCF model, long-term growth for all of the utilities in the proxy group is assumed to converge to that of the underlying economy.¹⁰⁷⁹ Because this assumption has the effect of significantly moderating the composite growth rate, the Commission noted that “it is unnecessary to screen the proxy group for unsustainable growth rates.”¹⁰⁸⁰ As a result, the Commission concluded that a long-term growth rate based on GDP is sustainable and the issue of evaluating high-end values is now moot.¹⁰⁸¹ Ms. Joe’s testimony runs directly counter to this approach because she screens the growth data *before* they are combined with the GDP data.¹⁰⁸² If this were the Commission’s intent in Opinion No. 531, its comment that screening high-end values is unnecessary due to the use of GDP data in calculating the growth rate would make no sense.¹⁰⁸³ Accordingly, Dr. Avera concluded that there is no basis to exclude these high-end values and Ms. Joe’s recommendations should be rejected.¹⁰⁸⁴

366. Dr. Avera stated that there is nothing “invalid” about the allowed ROEs included in his analysis.¹⁰⁸⁵ These values have all been held by the Commission to be fair and reasonable at the time they were approved, whether resulting from litigated proceedings or settlements.¹⁰⁸⁶ Moreover, approved ROEs are closely followed by investors, and provide a direct signal that influences their expectations and required rates of return.¹⁰⁸⁷

367. Dr. Avera disagrees with Ms. Joe’s view that, if the primary purpose of each proceeding was anything other than to establish a base ROE, the Commission’s findings have no probative value. He finds her position to be clearly at odds with the actual outcome and effect in each of the cases she brands as “invalid,” since in every instance the commission concretely ruled that the ROE in issue resulted in rates that were just and reasonable.¹⁰⁸⁸ The Commission has the authority and responsibility to ensure that the end-result of the underlying ROE produces rates that meet the *hope* and *Bluefield* standards, which implicitly includes a reexamination of the allowed return and its impact on customers and the utility.¹⁰⁸⁹ The Commission’s exercise of this mandate is no less

¹⁰⁷⁷ *Id.* at 62.

¹⁰⁷⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 79).

¹⁰⁷⁹ *Id.*

¹⁰⁸⁰ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 118).

¹⁰⁸¹ *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 79).

¹⁰⁸² *Id.*

¹⁰⁸³ *Id.* at 62-63.

¹⁰⁸⁴ *Id.* at 63.

¹⁰⁸⁵ *Id.* at 64.

¹⁰⁸⁶ *Id.*

¹⁰⁸⁷ *Id.*

¹⁰⁸⁸ *Id.* at 65.

¹⁰⁸⁹ *Id.*

relevant in cases where it reaffirms an existing ROE as reasonable in a subsequent proceeding.¹⁰⁹⁰ Similarly, in cases involving the approval of ROE incentive adders under Order 679, incentives will only be approved if the “meet the just and reasonable standard by achieving the proper balance between consumer and investor interests on the facts of a particular case.”¹⁰⁹¹ This determination requires an evaluation of incentives, in light of a utility’s existing base ROE, which “is designed to account for many of the risks associated with transmission investment and to support that investment.”¹⁰⁹² Given the Commission’s mandate to ensure that rates are just and reasonable, and in light of its evaluation of incentives as a means of accommodating risks that are not adequately addressed by the base ROE, the Commission’s approval of requested ROE adders indicates a finding that the total package of incentives, together with the existing base ROE, continues to result in rates that are just and reasonable at the time of the decision.¹⁰⁹³

303. Dr. Avera testified that there is no merit to Ms. Joe’s continued assertion that a risk premium approach based on authorized ROEs does not consider objective market data.¹⁰⁹⁴ He noted that her claim that application of the risk premium method based on authorized ROEs “is a non-market approach”¹⁰⁹⁵ has already been considered and rejected by the Commission in Opinion No. 531-B.¹⁰⁹⁶ Apart from considering capital market data, the risk premiums implied by allowing ROEs achieve relevance because of their importance as a measure of investors’ expected returns.¹⁰⁹⁷ Investors are intensely focused on the actions of regulators and rely on allowed ROEs in evaluating their risk and return expectations.¹⁰⁹⁸

304. Dr. Avera testified that Ms. Joe did not rebut the specific methodology that he used to apply the CAPM and that her main quarrel with his CAPM methodology boils down to her observation that it results in higher indicated cost of equity estimates than are produced using historical market risk premiums.¹⁰⁹⁹ He alleged that she did not develop an independent analysis of the market rate of return or otherwise apply the CAPM methodology.¹¹⁰⁰ She did however express support for the CAPM analysis performed by Dr. Woolridge, but this exact same approach as applied by Dr. Woolridge and endorsed

¹⁰⁹⁰ *Id.*

¹⁰⁹¹ *Id.* (citing Order No. 679 at P 265).

¹⁰⁹² *Id.* at 65-66 (citing *Promoting Transmission Investment Through Pricing Reform*, 141 FERC ¶ 61, 129 at P 11 (2012)).

¹⁰⁹³ *Id.* at 66.

¹⁰⁹⁴ *Id.*

¹⁰⁹⁵ Ex. S-1 at 98.

¹⁰⁹⁶ Ex. NET-1500 at 66-67.

¹⁰⁹⁷ *Id.* at 67.

¹⁰⁹⁸ *Id.*

¹⁰⁹⁹ *Id.* at 67-68.

¹¹⁰⁰ *Id.* at 68.

by Ms. Joe was rejected by the Commission in Opinion No. 531-B.¹¹⁰¹ Dr. Avera explains that Dr. Woolridge's CAPM analysis is not reliable for the purpose of evaluating DCF results because it is a backward-looking, historical study that is inconsistent with the underlying assumptions of the CAPM approach and the approach endorsed in Opinion No. 531.¹¹⁰² Like the DCF model, the CAPM is a forward-looking model based on expectations of the future.¹¹⁰³ As a result, in order to produce a meaningful estimate of investors' required rate of return, the CAPM must be applied using estimates that reflect the expectations of actual investors in the market.¹¹⁰⁴ In Opinion Nos. 531 and 531-B, the Commission accepted the CAPM methodology as a check on the results of the Commission's two-step DCF methodology when the CAPM study specifically incorporates forward-looking expectation that are consistent with the assumptions of the model.¹¹⁰⁵ Meanwhile, Dr. Avera explained that Dr. Woolridge's CAPM approach erroneously relies on historical risk premiums determined based on data extending back to 1802.¹¹⁰⁶ Historical risk premiums have been repeatedly rejected by the Commission¹¹⁰⁷ and found to be considerably downward biased.¹¹⁰⁸ As a result, Dr. Avera concluded that there is no justification for Ms. Joe's suggestion that Dr. Woolridge's CAPM analysis in this case can be distinguished in any meaningful way from what the Commission rejected in the past.¹¹⁰⁹

305. Dr. Avera commented that Ms. Joe is misguided in her assertion that his market risk premium is inflated.¹¹¹⁰ He stated that she erroneously contended that the "current advisories" referred to in her testimony are forward-looking when they are clearly not.¹¹¹¹ According to Ms. Joe's supposition, equity returns for the market as a whole will amount to 8.5%.¹¹¹² Meanwhile, she is recommending base ROEs of 8.72% and 9.03%.¹¹¹³ Dr. Avera explained that rational investors would never buy a market basket of common stocks, and assume all of the inherent risk, in exchange for an expected return that falls below even Ms. Joe's downward biased 8.72% and 9.03% recommendations in this case.¹¹¹⁴ He stated that the average earnings growth data reported for the companies in the

¹¹⁰¹ *Id.*

¹¹⁰² *Id.*

¹¹⁰³ *Id.* at 69.

¹¹⁰⁴ *Id.*

¹¹⁰⁵ *Id.*

¹¹⁰⁶ *Id.*

¹¹⁰⁷ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 118; Opinion No. 531, 147 FERC ¶ 61,234 at P 147 n.292.

¹¹⁰⁸ Ex. NET-1500 at 69-70.

¹¹⁰⁹ *Id.* at 70.

¹¹¹⁰ *Id.*

¹¹¹¹ *Id.* at 71.

¹¹¹² *Id.* at 72.

¹¹¹³ *Id.*

¹¹¹⁴ *Id.*

Value Line universe is 12.68%, with a corresponding average dividend yield of 1.60%. Dr. Avera testified that combining these Value Line estimates results in an estimated forward-looking market rate of return of 14.28%, not 8.5%.¹¹¹⁵

306. Dr. Avera testified that under the assumptions of modern capital market theory on which the CAPM rests, risk considerations are reduced to a single risk measure – beta – which captures stock price volatility relative to the market.¹¹¹⁶ Within the CAPM paradigm every firm-specific consideration is boiled down to a single question; how much does the stock's price fluctuate in relation to the market as a whole?¹¹¹⁷ He stated that beta is the measure of the variability and research demonstrates that it does not fully account for the impact of firm size.¹¹¹⁸ Dr. Avera cited a study reported in *Public Utilities Fortnightly* noted that the betas of small companies do not fully account for the higher realized rates of return associated with small company stocks.¹¹¹⁹

The smaller deciles show returns not fully explainable by the CAPM. The difference in risk premium (realized versus CAPM) grows larger as one moves from the largest companies in decile 1 to the smallest in decile 10. The difference is especially pronounced for deciles 9 and 10, which contain the smallest companies.

According to Dr. Avera, the study went on to conclude that a public traded utility with a market capitalization of \$1.0 billion would require a small company premium of approximately 130 basis points above the rate of return for larger firms.¹¹²⁰

307. Dr. Avera testified that Ms. Joe takes issue with his expected earnings analysis because, instead of using a comparable risk group of unregulated companies, his analysis focused directly on electric utilities.¹¹²¹ She argued that the only appropriate way to apply to apply the expected earnings approach is to consider expected earnings returns for a comparable risk group of firms in the competitive sector of the economy.¹¹²² Dr. Avera admits that returns for non-regulated companies are a legitimate benchmark for gauging investors' requirements, but stated that this certainly does not preclude consideration of expectations for electric utilities.¹¹²³ He stated that this practice has been endorsed by regulators, such as the Virginia State Corporation Commission, which is required by statute to consider the earned returns on book value of electric utilities in its region, and

¹¹¹⁵ *Id.*

¹¹¹⁶ *Id.* at 73.

¹¹¹⁷ *Id.*

¹¹¹⁸ *Id.*

¹¹¹⁹ *Id.* at 74 (quoting Michael Annin, "Equity and the Small-Stock Effect," *Public Utilities Fortnightly* at 43 (Oct. 15, 1995)).

¹¹²⁰ *Id.*

¹¹²¹ *Id.* at 77.

¹¹²² *Id.*

¹¹²³ *Id.* at 78.

has established allowed ROEs based on earned returns on book value for peer groups of other electric utilities.¹¹²⁴ Similarly, in Opinion No. 531 the Commission recognized that the results of the expected earnings approach applied to other electric utilities, noting that:¹¹²⁵

[T]he . . . expected earnings analysis, given its close relationship to the comparable earnings standard that originated in *Hope*, and the fact that it is used by investors to estimate the ROE that a utility will earn in the future can be useful in validating our ROE recommendations.

Dr. Avera stated that the expected earnings approach provides a direct guide to ensure that the allowed ROE is similar to what other utilities of comparable risk will earn on invested capital.¹¹²⁶

308. Dr. Avera testified that Ms. Joe's concerns regarding circularity are not justified. As the Commission recognized in Opinion No. 531-B, the expected earnings approach and other alternative benchmarks are not being used to directly fix a just and reasonable return.¹¹²⁷ Rather, these methods are to be considered in guiding the placement of a fair ROE from within the DCF zone of reasonableness.¹¹²⁸

5.2 Ms. Lapson

309. The purpose of Ms. Lapson's cross-answering testimony was to respond to the testimony by Commission Trial Staff witness Ms. Sabina Joe of March 23, 2015. Ms. Lapson testified that Ms. Joe did not offer any argument to counter the existence or continuing existence of a massive monetary anomaly. Ms. Lapson thinks it impossible to dispute the factual evidence she presented in Exhibit NET-1400 that the magnitude of the Federal Reserve monetary stimulus operations are unprecedented in size and beyond all prior experience.

310. Ms. Lapson disagreed with Ms. Joe's assertion that the Commission's decisions in Opinion Nos. 531 and 531-B considered only interest rates and failed to consider equity market considerations.¹¹²⁹ According to Ms. Lapson, the Commission recognized that the valuation of utility equities and the dividend yields on utility shares are subject to the effects of monetary policy operations that drove down the yields on long-term debt

¹¹²⁴ *Id.*

¹¹²⁵ *Id.* at 78-79 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 147).

¹¹²⁶ *Id.* at 79.

¹¹²⁷ *Id.*

¹¹²⁸ *Id.*

¹¹²⁹ Ex. NET-1600 at 7.

instruments.¹¹³⁰

311. Ms. Lapson explained how the Fed’s monetary stimulus operations caused a rise in the equity markets and the values of dividend-paying securities. The Fed’s primary mechanism for providing monetary stimulus to the economy is through setting the federal funds rate, an interest rate applicable to overnight loans among banks of money they hold on deposit in their reserve accounts at the Fed.¹¹³¹ In 2008, the Fed set the federal funds rate at zero, but after so doing it could provide no further stimulus by lowering that rate further.¹¹³² For greater monetary stimulus, the Fed decided to influence interest rates for longer maturities.¹¹³³ To reduce intermediate and long-term rates, the Fed embarked on extensive asset purchases (known as “Quantitative Easing” or “QE”).¹¹³⁴ The Fed instructed the Federal Reserve Bank of New York through open market purchases to buy trillions of dollars of longer-dated Treasury bonds and mortgage-backed securities issued by federal agencies in three successive phases.¹¹³⁵ Prior to the start of QE in November 2008, the aggregate amount of all outstanding long-term U.S. federal agency bonds, Treasury bonds, and fixed-rate federal agency MBS securities was \$7.7 trillion.¹¹³⁶ After three rounds of QE, the Federal Reserve now holds \$4.25 trillion of such long-duration, low-risk assets, or 55% of the total amount of such securities in the entire capital market at November 2008.¹¹³⁷ Removing from the marketplace more than half of the outstanding amount of those long-dated, low-risk bonds caused low-risk bonds with maturities of 10 years and greater to become a scarce item relative to market demand, and drove down yields on such securities, as the Fed intended.¹¹³⁸

312. Ms. Lapson explained that at the time the Federal Reserve Open Market Committee announced the start of a third round of QE (“QE3”), the Fed’s chairman Dr. Ben Bernanke held a press conference on September 13, 2012 in which he explained that the intended effect of the third round of QE was to drive down yields on corporate bonds and to drive up equity prices and the prices of other assets. Dr. Bernanke said:¹¹³⁹

We do think that such policies can bring interest rates down – not just Treasury rates, but a whole range of rates including mortgage rates and rates for corporate bonds and other types of important interest rates. It also affects stock prices. It affects other asset prices, home prices, for example.

¹¹³⁰ *Id.*

¹¹³¹ *Id.* at 9-10.

¹¹³² *Id.* at 10.

¹¹³³ *Id.*

¹¹³⁴ *Id.*

¹¹³⁵ *Id.*

¹¹³⁶ *Id.*

¹¹³⁷ *Id.*

¹¹³⁸ *Id.* at 10-11.

¹¹³⁹ *Id.* at 11.

313. Ms. Lapson described the mechanics that underlay Dr. Bernanke's statement. The Fed's purchases of long-term Treasuries and MBS issued by federal agencies caused the yields on such instruments to fall to historically low levels.¹¹⁴⁰ Therefore, long-duration investors (such as pension funds and life insurance companies) began to "search for yield" elsewhere by taking on additional credit and liquidity risk in fixed income instruments.¹¹⁴¹ With 10-year rates on Treasuries below 2%, many investors turned to corporate bonds and drove down the yields on both investment grade and speculative grade bonds to record lows.¹¹⁴² Traditional bond investors such as pension funds and insurers that need to receive regular cash income to pay out policies and annuities became dissatisfied with the low yields available in bonds and then moved out on the risk spectrum from bonds to equities that pay high dividends.¹¹⁴³ Demand for dividend-paying stocks increased and their valuations were bid up as a consequence.¹¹⁴⁴ The dividend-paying utility equities were the focus of purchases by investors that do not ordinarily buy equities or do not do so in such large amounts, as substitutes for bonds.¹¹⁴⁵

314. Ms. Lapson explained that, from October 2014 through January 2015, market volatility increased relative to the very low level that prevailed in 2013 and the first nine months of 2014, though still remaining low relative to the average levels of 2007-2011.¹¹⁴⁶ Increased market volatility signals an increased risk of loss of principal, and thus it would tend to reduce the proportion of equity that a financial institution or fund is willing to hold as a substitute for high quality bonds.¹¹⁴⁷ The increased market demand for utility equities that followed the start of QE3 resulted from the search for yield, but it was also facilitated by a reduction in market volatility measures.¹¹⁴⁸ Conversely, a sell-off of utility equities in late January and February 2015 may have been triggered by the effect of increased measures of market volatility in major investors' portfolio management models.¹¹⁴⁹ Ms. Lapson summarized that episodes of increased equity market volatility that occur as the Federal Reserve moves towards "normalization" would tend to reduce investor demand for utility equities, even if interest rates remain unchanged.¹¹⁵⁰

315. Ms. Lapson testified that there is no assurance that the unconventional market demand for dividend-paying equities in lieu of bonds that resulted from the Fed's

¹¹⁴⁰ *Id.*

¹¹⁴¹ *Id.* at 12.

¹¹⁴² *Id.*

¹¹⁴³ *Id.*

¹¹⁴⁴ *Id.*

¹¹⁴⁵ *Id.*

¹¹⁴⁶ *Id.* at 15.

¹¹⁴⁷ *Id.*

¹¹⁴⁸ *Id.*

¹¹⁴⁹ *Id.*

¹¹⁵⁰ *Id.*

extraordinary actions will continue as the Fed undertakes capital market normalization and if capital market volatility increases in 2015-2016.¹¹⁵¹ The sudden drop in electric utility equity prices of approximately 14% from the mid-January 2015 peak to February 28 illustrates the swift consequences when large institutional investors suddenly revise their views and change their bets.¹¹⁵² Ms. Lapson stated that investors are constantly weighing and reweighing the Fed's guidance that it plans to "normalize" the monetary situation by removing artificial constraints on the Fed Funds rate and then ceasing to reinvest the proceeds of the securities it holds in its portfolio in replacement asset purchases.¹¹⁵³ She testified that investors who were lured by the Fed's monetary operations into buying dividend-paying shares in unusual quantity do not represent a stable and predictable shareholder base for utility equities going forward.¹¹⁵⁴

316. Ms. Lapson testified that the capital market anomaly impacted not only interest rates on Treasury and mortgage-backed securities, but also the prices and yields of corporate and utility bonds and the prices and dividend yields of stocks.¹¹⁵⁵ Investors responded to low yields on bonds by bidding up the prices of utility shares and other dividend-paying equities.¹¹⁵⁶ Given the influence that this capital market anomaly had upon the inputs to the Commission's DCF methodology, Ms. Lapson believes the Commission should consider other benchmarks of investors' ROE expectations to guide its placement of the NETOs' base ROE in the zone of reasonable returns.¹¹⁵⁷

317. According to Ms. Lapson, a weak point in Ms. Joe's logic is her presumption that because utilities in the proxy group had strong access to the equity market when their average authorized base returns on equity were greater than 10%, they would have had equally strong access to the capital market if their base ROEs were cut to her recommendations of 8.72% or 9.03%.¹¹⁵⁸ Furthermore, Ms. Joe presumed that mechanical application of the mid-point of the DCF model assures that utilities will have strong access to equity capital going forward if the ROE is reduced to her recommended level.¹¹⁵⁹ Ms. Lapson testified that this is not a reasonable assumption and that the numerical mid-point does not justify any such conclusion.¹¹⁶⁰

318. Ms. Lapson listed the factors that the Commission considered in its decision to place the base ROE at a point between the mid-point of the DCF zone of reasonableness

¹¹⁵¹ *Id.* at 16.

¹¹⁵² *Id.*

¹¹⁵³ *Id.*

¹¹⁵⁴ *Id.*

¹¹⁵⁵ *Id.* at 19.

¹¹⁵⁶ *Id.*

¹¹⁵⁷ *Id.*

¹¹⁵⁸ *Id.* at 20-21.

¹¹⁵⁹ *Id.* at 21.

¹¹⁶⁰ *Id.*

and the upper end of that zone. Those factors are: the likelihood that a massive monetary and capital market anomaly distorted results of the DCF model and thus the modeled results made it more difficult to determine the return necessary to meet the capital attraction standards of *Hope* and *Bluefield*;¹¹⁶¹ the evidence from alternative benchmarks that the mid-point of the DCF model understated the implied cost of equity to the NETOs;¹¹⁶² and the Commission's assessment that setting the base ROE for electric transmission below the returns authorized for electric utilities by state jurisdictions would discourage investment in electric transmission.¹¹⁶³ The Commission considered the possibility that the DCF model inputs were distorted by the monetary anomaly as sufficient reason to question the accuracy of the DCF model mid-point result.¹¹⁶⁴ The Commission did not establish a standard that required the prediction of future increases in interest rates or future declines in equity prices.¹¹⁶⁵ Ms. Lapson testified that the same anomalous conditions that the Commission acknowledged existed in deciding the Base ROE in Opinion No. 531 still exists for the three periods under review in this case.¹¹⁶⁶

319. Ms. Lapson disagreed with Ms. Joe's assertion that the central point of the results of the DCF model is intrinsically the true cost of equity. She testified that investors generally understand that the DCF model is one estimation model used by regulators to set the return on equity that is embodied in utilities' tariffs.¹¹⁶⁷ The numbers input in the model represent either observed or inferred values at a point in time. If the model is run with the same proxy group of companies for dates a week or a month earlier or later, it will generally produce different results.¹¹⁶⁸ If one or two companies are included or excluded from the proxy group, as is frequently a matter of disputation, the results of the model can differ.¹¹⁶⁹ Ms. Lapson explained that in the extraordinary monetary conditions in effect in the periods under review in this case and still continuing at the present time, certain inputs to the model are subject to distortion.¹¹⁷⁰ The DCF model is simply an estimation model that is intended to approximate the true cost of equity for regulated utilities and, as the Commission has recognized, the DCF methodology will not produce a reliable estimate of investors' implied cost of equity during all conditions.¹¹⁷¹ The Commission properly adjusts the output of the DCF model where the model mid-point is

¹¹⁶¹ Opinion No 531, 147 FERC ¶ 61,234 at PP 142, 145.

¹¹⁶² *Id.* P 147.

¹¹⁶³ Ex. NET-1600 at 21-22 (citing Opinion No. 531, PP 148-50).

¹¹⁶⁴ *Id.* at 22.

¹¹⁶⁵ *Id.*

¹¹⁶⁶ *Id.*

¹¹⁶⁷ *Id.*

¹¹⁶⁸ *Id.* at 22-23.

¹¹⁶⁹ *Id.* at 23.

¹¹⁷⁰ *Id.*

¹¹⁷¹ *Id.*

not a reliable predictor of investors' long-term expectations.¹¹⁷²

320. Ms. Lapson defined "model risk" as the risk that a model or algorithm used to predict values in real-world situations will fail to predict or represent the real phenomenon that is being modeled.¹¹⁷³ She testified that there has been increasing recognition that the concept applies very broadly to models used to value companies, to regulate financial institutions, to assign credit ratings, to approve or deny consumer credit, to underwrite insurance policies, to maintain fleets of aircraft, or to make health-care decisions. She identified the relevant model in this proceeding as the Commission's DCF methodology used to estimate investors' implied cost of equity ("ICOE") and to determine a base ROE that will provide a just and reasonable return and encourage investment in critical electric transmission infrastructure.¹¹⁷⁴

321. Ms. Lapson explained the factors in the DCF model that are vulnerable to distortion by Fed stimulus operations.¹¹⁷⁵ She noted that all of the witnesses in this case who provide DCF testimony agree that the primary factors in the Commission's DCF formula are: the dividend payments of a company in the proxy group; a historical average stock price; and an estimate of the investors' expected growth, measured under the two-step approach by earnings per share for the first stage and an estimate of long-term GDP growth in the second stage. The only one of these items that is directly observable is the equity price, which, along with the dividend yield (expected dividend per share divided by the equity price), are directly affected by the Fed's monetary stimulus and the resulting capital market anomaly.¹¹⁷⁶ Ms. Lapson stated that it is disputed as to whether expected earnings growth rates, which are widely accepted as a surrogate for investors' expectations, may also be subject to effects from the Fed's monetary stimulus.¹¹⁷⁷

322. Ms. Lapson explained that another factor subject to model risk in the application of the DCF model directly impacted by the Fed's monetary operations is the Commission's customary low-end hurdle rate (approximately 100 basis points over the interest rate on the relevant index of either Baa or A-rated utility bonds).¹¹⁷⁸ This hurdle is used to weed out returns that are too low. When this factor is lowered by Fed stimulus, very low proxy DCF values are retained in the proxy set and form the low end of the range of the implied cost of equity.¹¹⁷⁹ She explained that an inverse relationship is generally observed between the level of interest rates and the risk premium between the cost of equity and the cost of debt, and that the 100 basis-point guideline is an arbitrary

¹¹⁷² *Id.*

¹¹⁷³ *Id.* at 23-24.

¹¹⁷⁴ *Id.* at 24.

¹¹⁷⁵ *Id.*

¹¹⁷⁶ *Id.* at 25.

¹¹⁷⁷ *Id.*

¹¹⁷⁸ *Id.*

¹¹⁷⁹ *Id.*

value that was established at a time when utility bond coupons were higher than they are today.¹¹⁸⁰ At much lower interest rates today, eliminating low end proxy group results based on a constant spread of only 100 basis points over the bond interest rate may be too low a hurdle relative to the observed inverse relationship of the risk premium to the level of interest rates.¹¹⁸¹ Ms. Lapson thinks there is a good reason to question the reliability of the low-end hurdle rate under current market circumstances, in which utility bond yields have been suppressed by unprecedented monetary stimulus.¹¹⁸² She further noted that the FERC's rule for setting the low end of the range of reasonableness is not an intrinsic part of the DCF methodology, but an administrative adjustment. She also noted that even if Ms. Joe believes the DC model is immutable, the Commission's administrative procedures are mutable.¹¹⁸³

323. Ms. Lapson testified that the Commission has broad discretion to consider models and indicators other than its DCF methodology in order to fulfill its mandate to determine a just and reasonable return that will satisfy the Supreme Court's *Hope* and *Bluefield* standards.¹¹⁸⁴ These alternate approaches or views are guides for the Commission's discretion in the placement of the ROE in order to meet the Commission's policy objectives to foster investment in a robust and reliable transmission network.¹¹⁸⁵ She stated that, most significantly, at this time, the determination of a base ROE for the NETOs based upon Ms. Joe's recommended DCF mid-point of 8.72% for the Complaint II Refund Period and 9.03% for the Complaint III Period, that are 185 base points below the base ROE of 10.57% determined in the Commission's Opinion No. 531, would undermine all of the efforts the Commission has made over the past ten years to improve investor sentiment regarding transmission investment and to increase the access to capital for transmission owners.¹¹⁸⁶

324. Ms. Lapson testified that the Commission demonstrated that it saw the relevance of similar evidence about state ROE determinations when it relied upon such evidence in deciding Opinion No. 531.¹¹⁸⁷ Ms. Lapson did not suggest in her testimony that the ROEs determined by state commissions should or could be substituted for the Commission's standard. What she stated was that the state ROE determinations are relevant for the information they provide about regulatory rate results studied by investors that form the background for investors' expectations and decisions about investing in companies or projects to support existing investment and build new transmission facilities versus other

¹¹⁸⁰ *Id.*

¹¹⁸¹ *Id.* at 25-26.

¹¹⁸² *Id.* at 26.

¹¹⁸³ *Id.*

¹¹⁸⁴ *Id.* at 28.

¹¹⁸⁵ *Id.*

¹¹⁸⁶ *Id.* at 29.

¹¹⁸⁷ *Id.*

investments in utility regulated electric generation or distribution facilities.¹¹⁸⁸ Ms. Lapson testified that they can inform the Commission about how to place their base ROE determinations within the range of reasonable ROEs in order to achieve the Commission's policy goals and that the Commission found value in this evidence in Opinion No. 531.¹¹⁸⁹

325. Ms. Lapson responded to Ms. Joe's complaint of the "unknown derivation" of the state ROEs in her state ROE analysis. She explained that the data was taken in full from reports by SNL Financial LP's Regulatory Research Associates that are included in her work papers.¹¹⁹⁰ She testified that this same information is used by many large investors and investment analysts and quoted in the published reports of sell-side analysts, and that this is the same data source and analytical methodology that she used in EL11-66 and that the Commission relied upon in Opinion No. 531.¹¹⁹¹

326. Ms. Lapson responded to Ms. Joe's charges that her testimony in NET-1400 is invalid because of her focus on the returns for vertically-integrated electric utilities (VIEUs) rather than for "All Electrics." Ms. Lapson explained that Ms. Joe misunderstood her testimony and that it is her expressed view that the VIEUs are a good comparison group for the electric transmission services of the NETOs, but that nonetheless she provided the information for the all Electrics group in exactly the same manner and to the same extent as the information from the VIEU group.¹¹⁹²

327. Ms. Lapson thought it revealing that Ms. Joe's recommended mid-point ROE of 8.72% for the Complaint II Period is equal to the two lowest out of 101 state ROE determinations for All Electrics for Complaint 2 (or the two lowest out of 95 adjusted ROE determinations for the same period); that is, 98% of the state ROE decisions for the All Electrics group were higher than Ms. Joe's recommended base ROE.¹¹⁹³ In the Complaint III Period, 84 out of 86 state ROE determinations (or 77 out of 79 adjusted ROE determinations) for All Electrics are higher than Ms. Joe's mid-point base ROE of 9.03%.¹¹⁹⁴ Once again, Ms. Joe's recommended base ROE is lower than 98% (or 97%) of the state ROE determinations.¹¹⁹⁵ Ms. Lapson concluded that Ms. Joe's recommended base ROE is suspiciously too low (as are those of Drs. Woolridge and Wilson), and that such a great discrepancy may well be a system of the effects of anomalous capital market circumstances on the inputs to the DCF model.¹¹⁹⁶ She testified that fixing the NETOs'

¹¹⁸⁸ *Id.* at 30.

¹¹⁸⁹ *Id.* (citing Ex. NET-1400 at 37-39).

¹¹⁹⁰ *Id.* at 31.

¹¹⁹¹ *Id.*

¹¹⁹² *Id.* at 31-32.

¹¹⁹³ *Id.* at 33.

¹¹⁹⁴ *Id.* at 33-34.

¹¹⁹⁵ *Id.* at 34.

¹¹⁹⁶ *Id.*

ROE at such a low level may drive away capital from investment in transmission, and hence the value of consulting alternate benchmarks of investor expectations, including the state ROE analysis in her testimony and other benchmarks presented by Dr. Avera.¹¹⁹⁷

328. Ms. Lapson's advocates placing the base ROE above the mid-point in the light of (i) the evidence of anomalous monetary and capital market conditions artificially depressing the results of the DCF model; (ii) the concern that the DCF model is subject to model risk, and it may not be a reliable predictor of investors' return expectations when its principal inputs are affected by massive monetary stimulus; and (iii) the risk that setting the ROE materially below investors' expectations and below the returns authorized in state jurisdictions would discourage new investment in transmission facilities and counteract the Commission's policy objectives.¹¹⁹⁸ FERC took all of those factors into account in Opinion No. 531, and Ms. Lapson thinks that Ms. Joe's arguments are therefore directly contrary to the Commission's findings on these issues less than a year ago.¹¹⁹⁹

329. Ms. Lapson explained that NETOs recover their transmission costs through two sets of Commission-regulated rates: Regional Network Service (RNS) and Local Network Service (LNS) rates. Ms. Joe stated that LNS is the sole part of the NETOs' service that earns only the base ROE without any incentive adder, and thus the base ROE should be set based upon the risk (or lack of risk) of LNS.¹²⁰⁰ In response, Ms. Lapson testified that Ms. Joe fundamentally confused transmission service with cost recovery and thus makes numerous mistakes in her premise that the determination of a transmission base ROE should be anchored upon LNS.¹²⁰¹

330. Ms. Lapson testified that Dr. Woolridge's proxy group is made up of substantial companies all of which have published Issuer Credit Ratings, whereas the NETOs include several very small companies without published credit ratings.¹²⁰² She considered Dr. Woolridge's hypothesis about the relative business risks of the NETOs versus his national proxy group from the viewpoint of a rational investor, and she made several adjustments to his assignments of ratings to companies that do not have published credit ratings consistent with the types of adjustments that prudent lenders and investors in bonds would make.¹²⁰³ These adjustments reflect Ms. Lapson's experience evaluating utility and corporate bonds for a major ratings agency and her prior experience as a lender and bank officer. The result was her estimate that the blended credit score of the NETO group is equivalent to an issuer credit rating from Standard & Poor's (S&P) of

¹¹⁹⁷ *Id.*

¹¹⁹⁸ *Id.* at 35.

¹¹⁹⁹ *Id.* at 35-36.

¹²⁰⁰ *Id.* at 36-37.

¹²⁰¹ *Id.* at 37.

¹²⁰² *Id.* at 40-41.

¹²⁰³ *Id.* at 41.

BBB+ and from Moody's Investors Service (Moody's) of Baa1; those are the same average ratings as Dr. Woolridge's national proxy group.¹²⁰⁴

331. Ms. Lapson testified that the base ROE proposed by Ms. Joe would compromise the NETOs' ability to compete for capital in the U.S. investment markets.¹²⁰⁵ When investors are not motivated by extraordinary and unconventional forces produced by monetary stimulus, the more conventional investment in utility equities is motivated by investors' intention to employ capital for the longer term at relatively stable returns.¹²⁰⁶ Based on Ms. Lapson's experience in utility finance and investment, she would expect Ms. Joe's large downward adjustment in the NETOs' base ROE to surprise and dismay utility investors, and to discourage future investment in transmission-owning utilities.¹²⁰⁷ Because several transmission owners are involved in this proceeding and due to the prominence of Opinion Nos. 531 and 531-B affecting the same group of transmission owners, Ms. Lapson testified that the U.S. investment community will focus intently on the Presiding Judge's findings in this proceeding and in the final outcome of the case.¹²⁰⁸ If Ms. Joe's recommended base ROEs were adopted, many investors would conclude that capital investment in electric transmission is unable to earn a base ROE that is commensurate with the returns authorized for state-jurisdictional utilities bearing lower risks than the electric transmission business.¹²⁰⁹ Furthermore, investors likely would consider the base ROE determination to be unusually harsh and capricious if the Commission set the base ROE for NETOs at 8.72% for the Complaint II Period and 9.03% for the Complaint III Period, 185 and 154 base points below the base ROE of 10.57% determined in the Commission's Opinion No. 531 and recently affirmed in Opinion No. 531-B.¹²¹⁰ Ms. Lapson noted that the Commission in Opinion No. 531 indicated its concern about investor reaction if it ordered a reduction for the ROE of the NETOs of 175 base points.¹²¹¹ Such a radical reduction in the base ROE would put transmission investment subject to FERC jurisdiction at a competitive disadvantage in the capital market relative to other utilities.¹²¹² Ms. Lapson explained that Ms. Joe's proposed base ROEs would not be consistent with the necessity to attract capital to fund the NETOs' required new transmission investments and investors would be reluctant to allocate capital to utilities or utility holding companies that, in turn, allocate their capital to FERC-jurisdictional electric transmission, if such investment will earn a return that is below investors' expectations and inferior to the returns available from investments in

¹²⁰⁴ *Id.*

¹²⁰⁵ *Id.* at 43.

¹²⁰⁶ *Id.*

¹²⁰⁷ *Id.* at 44.

¹²⁰⁸ *Id.*

¹²⁰⁹ *Id.*

¹²¹⁰ *Id.*

¹²¹¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 150).

¹²¹² *Id.* at 45.

more favorable jurisdictions.¹²¹³

332. Ms. Lapson explained the historical background of investors' views of electric transmission investment. Although electric transmission assets have been in existence for over a century, investment in such assets has traditionally been submerged as a small part of an investment in a vertically integrated utility with different types of assets, including distribution and generation assets.¹²¹⁴ Focused investment in electric transmission facilities subject to FERC jurisdiction is a relatively new or niche segment in the utility investment market.¹²¹⁵ Unlike more established investment sectors, it does not have a long history of financial performance, and there is only one "pure-play" trading equity representing electric transmission subject to FERC jurisdiction.¹²¹⁶ Ms. Lapson testified that there is no proxy group or investment index representing companies with a focus on electric transmission.¹²¹⁷ Investors therefore base their provisional acceptance and interest in the opportunities of investment in electric transmission subject to FERC jurisdiction upon their perceptions of constructive regulatory support, following the passage of the Energy Policy Act of 2005 and FERC Order 679 that aimed to stimulate investment in transmission facilities and ameliorate some investors' greatest concerns about electric transmission projects.¹²¹⁸ Over the past ten years, investors have become more accustomed to electric transmission subject to FERC jurisdiction but, according to Ms. Lapson, this is still a very short investment history.¹²¹⁹ Investors' reaction to this nascent sector could change if they see that the Commission has changed its approach in a manner that is inimical to investors.¹²²⁰

333. Ms. Lapson testified that investors are becoming concerned about the regulatory risk associated with electric transmission investment.¹²²¹ She cited the analytical report published by Wolfe Research on April 6, 2015, "Utilities & Power: Don't you FERCet about ROE, Don't, Don't, Don't, Don't."¹²²² This report cites several recent FERC decisions and comments by commissioners and concludes that "it is becoming clear that this is not an investor-friendly FERC. Comments within just the past few weeks have pointed to a FERC that is increasingly out of touch with investors."¹²²³ The authors further conclude that investors are especially focused on the NETOs and the decision in this proceeding will have a significant impact on investor sentiment regarding not only

¹²¹³ *Id.*

¹²¹⁴ *Id.*

¹²¹⁵ *Id.*

¹²¹⁶ *Id.* at 45-46.

¹²¹⁷ *Id.* at 46.

¹²¹⁸ *Id.*

¹²¹⁹ *Id.*

¹²²⁰ *Id.*

¹²²¹ *Id.*

¹²²² *Id.* (citing Ex. NET-1602).

¹²²³ *Id.* at 47.

future funding by the NETOs but also sentiment about investment in electric transmission in general.¹²²⁴ The report concluded that investors generally expect that the NETOs' base ROE has been set at 10.57%, and have not taken into consideration the risk to transmission owners of a further reduction in base ROE.¹²²⁵

334. Ms. Lapson testified that the base transmission ROE must be compensatory and reasonable in itself in order for incentives to fulfill their intended purpose.¹²²⁶ The base ROE must provide a just and reasonable return and attract capital before taking into consideration incentives that were assigned for specific purposes.¹²²⁷

335. Ms. Lapson disagreed with Ms. Joe's interpretation of a quotation from a Moody's report from March, 2015, which reads that lower authorized transmission ROEs will not harm the financial condition of the NETOs.¹²²⁸ Ms. Lapson explained that if the Commission were to implement the base ROEs recommended by Ms. Joe, the resulting reduction in ROE from transmission would be substantial, 185 basis points and 154 basis points, respectively, relative to the 10.57% base ROE established for the NETOs in Complaint I, which itself was a reduction from a longstanding base ROE of 11.14%.¹²²⁹ The report that Ms. Joe cited refers to the smaller and more gradual reductions that have occurred in state jurisdictional ROEs and not reductions in the realm of 154-185 basis points.¹²³⁰ The key point of that report is that the reduction of the authorized ROE will not affect the financial condition or credit-worthiness of a utility if the cash flow of the utility is preserved or improved due to favorable changes in other aspects of the tariff formation.¹²³¹ Ms. Lapson explained that the reduction in ROE that Ms. Joe proposed would reduce the NETOs' cash flow without any offsetting improvements to cash flow from other sources.¹²³² Ms. Lapson testified that the correct standard for setting the base ROE is not that the reduction can be made without harming the regulating company, but whether the ROE is sufficient to attract capital to the business on reasonable terms.¹²³³ Transmission investment carries risks due to the long time and many uncertainties to get projects approved and the large number of projects that never get through the approval process.¹²³⁴ She explained that recent Commissions understood the need to set the base ROE at a level that would attract capital to the transmission business in despite of such risks, and the Wolfe report suggests that investors should be cautious regarding potential

¹²²⁴ *Id.*

¹²²⁵ *Id.*

¹²²⁶ *Id.* at 48.

¹²²⁷ *Id.*

¹²²⁸ *Id.*

¹²²⁹ *Id.* at 48-49.

¹²³⁰ *Id.* at 49.

¹²³¹ *Id.*

¹²³² *Id.*

¹²³³ *Id.*

¹²³⁴ *Id.*

unfavorable changes in the regulatory environment for electric transmission.¹²³⁵

6. CAPs Rebuttal Testimony

336. Dr. Woolridge responded to three rounds of testimony: answering testimony of NETO witnesses Dr. Avera and Ms. Lapson that were filed on February 2, 2015; answering testimony of Staff witness Ms. Joe that was filed on March 23, 2015; and cross-answering testimonies of NETO Avera and Lapson that were filed on April 21, 2015. He focused principally on rebutting NETOs' witnesses and his testimony is dated May 18, 2015.

337. Dr. Woolridge testified that in prior cases, the Commission has generally set the ROE at the median of the array of DCF ICOEs, or, in the specific context of a region-wide ROE determined by a self-referential (that is, regional rather than national) proxy group, has looked to the midpoint of that array.¹²³⁶ He explained that in setting the present case for hearing, the Commission made clear that both of these alternatives are available to the Presiding Judge, as is every other point value within the DCF results array.¹²³⁷ In Opinion No. 531, the Commission made a case-specific, fact-specific decision to place the ROE at the top quarter of the DCF ICOEs. It cited three considerations relevant to this placement: (1) "anomalous" capital market conditions; (2) the results of the alternative ROE benchmarks; and (3) comparisons to state commission ROE awards.¹²³⁸

338. Dr. Woolridge cited Opinion No. 531, to show where the Commission made specific note of the NETOs' claims regarding the state of capital markets:¹²³⁹

The NETOs further contend that capital market conditions are expected to change significantly in the near-term, and strict reliance on the DCF methodology will result in ROEs "that are insufficient to attract investment on reasonable terms." The NETOs argue that once the Federal Reserve's Quantitative Easing program ends, "which may be in the very near future, interest rates can be expected to rise to more normal levels," and bond levels can be expected to increase.

339. Dr. Woolridge testified that the conditions that the Commission found to be anomalous based on the record in the Opinion No. 531 proceeding are no longer present.¹²⁴⁰ The DCF study period relied upon in Opinion No. 531 consisted of the last

¹²³⁵ *Id.* at 49-50.

¹²³⁶ Ex. CAP-19 at 7.

¹²³⁷ *Id.*

¹²³⁸ *Id.*

¹²³⁹ *Id.* (see Opinion No. 531 at P 130).

¹²⁴⁰ *Id.*

quarter of 2012 and the first quarter of 2013. He explained that, during that period, nominal interest rates temporarily dropped to levels not seen since the 1940s, and real yields on 10-year treasury bonds dropped into negative territory.¹²⁴¹ Since that time, Dr. Woolridge testified, that very rare economic condition has ended: inflation has dropped and nominal yields have risen, and those two trends together have produced a significant rise in real interest rates, placing the real yield on 10-year treasury bonds back in its usual positive territory.¹²⁴² More broadly, the economy has continued to improve, with five consecutive years of growth.¹²⁴³ The labor market has improved dramatically: unemployment, which was above 8.0% for most of 2012, is now down to 5.4%.¹²⁴⁴ The Federal Reserve's Quantitative Easing III bond buying program is over.¹²⁴⁵ Dr. Woolridge also pointed out that the stock market is at or near its all-time high.¹²⁴⁶ In this situation, he continued, with low interest rates and high stock prices, capital costs remain at historic lows.¹²⁴⁷ Dr. Woolridge testified that the NETO witnesses' previously-cited indicia have already turned out to be either too transient (ending before the record of this case has closed) or too permanent (showing no sign of ending in the next few years, thus implying that if the Commission raises rates on that basis, they may never decrease).¹²⁴⁸

340. Dr. Woolridge testified that the NETO's currently-favored basis for a claimed "anomaly" appears to be the low level of long-term interest rates.¹²⁴⁹ He stated, however, that the real yields on long-term bonds are significantly higher than they were during October 2012-March 2013. More fundamentally, the factors keeping long-term interest rates well below the elevated levels that were experienced from the mid-1960s until 2008 embody persistent economic realities that genuinely reduce not only the cost of long-term debt, but also the current cost of utility equity.¹²⁵⁰ First, while the economy has been growing, the GDP growth rate in the U.S. is low by historic standards.¹²⁵¹ Second, as noted by the Federal Open Market Committee ("FOMC"), the slow GDP growth has kept inflationary expectations in the U.S. very low, and below the FOMC's inflation target of 2.0%.¹²⁵² Third, global economic growth – including Asia and Europe – remains stagnant.¹²⁵³ As a result, while yields on ten-year U.S. Treasury bonds (2.25%) are low compared to past decades, these yields are well above the government bond yields in

¹²⁴¹ *Id.*

¹²⁴² *Id.* at 8.

¹²⁴³ *Id.*

¹²⁴⁴ *Id.*

¹²⁴⁵ *Id.*

¹²⁴⁶ *Id.*

¹²⁴⁷ *Id.*

¹²⁴⁸ *Id.*

¹²⁴⁹ *Id.*

¹²⁵⁰ *Id.*

¹²⁵¹ *Id.*

¹²⁵² *Id.*

¹²⁵³ *Id.*

Germany (.67%), Japan (.44%), and the United Kingdom (1.98%).¹²⁵⁴ Thus, U.S. Treasuries provide an attractive yield relative to the government bonds of other long-industrialized, large-economy nations, thereby attracting capital to the U.S. and keeping U.S. interest rates down.¹²⁵⁵ Dr. Woolridge explained that U.S. Treasury yields are not anomalously low when compared to these other governments' bond yields, nor are utility bond yields anomalously low when compared to the much lower yields on slightly safer government bonds.¹²⁵⁶

341. Dr. Woolridge explained that while interest rates remain low, the low interest rates referenced as "anomalous" in Opinion Nos. 531 and 531-B have to be evaluated by reference to inflation and the resulting "real yields."¹²⁵⁷ Figure 1 graphs the nominal 10-year Treasury bond yield, the inflation rate as measured by the Consumer Price Index ("CPI"), and the real 10-Year Treasury yield. This graph depicts the anomalous capital market conditions cited in Opinion Nos. 531 and 531-B. The key issue was that during almost the entire period covered by the record in Docket No. EL11-66, the real 10-year Treasury yield was substantially below 0%. This represents a true anomaly for capital markets and one that has since disappeared, according to Dr. Woolridge, as interest rates have increased and inflation has decreased.¹²⁵⁸

[This space is intentionally left blank]

¹²⁵⁴ *Id.* at 8-9.

¹²⁵⁵ *Id.* at 9.

¹²⁵⁶ *Id.*

¹²⁵⁷ *Id.*

¹²⁵⁸ *Id.*

Figure 1: Ten-Year Nominal and Real Treasury Yields and Inflation- 2010-Present

342. Dr. Woolridge quoted Ben Bernanke, former Federal Reserve Chairman:¹²⁵⁹

If you asked the person in the street, “Why are interest rates so low?” he or she would likely answer that the Fed is keeping them low. That’s true only in a very narrow sense. The Fed does, of course, set the benchmark nominal short-term interest rate. The Fed’s policies are also the primary determinant of the inflation and inflation expectations over the longer term, and inflation trends affect interest rates, as [Figure 2 below] shows. But what matters most for the economy is the real, or inflation-adjusted, interest rate (the market or nominal, interest rate minus the inflation rate). The real interest rate is most relevant for capital investment decisions, for example. The Fed’s ability to affect real rates of return, especially longer-term real rates, is transitory and limited. Except in the short run, real interest rates are determined by a wide range of economic factors, including prospects for economic growth – not the Fed.

343. Dr. Woolridge again quoted Dr. Bernanke when he addressed the issue about

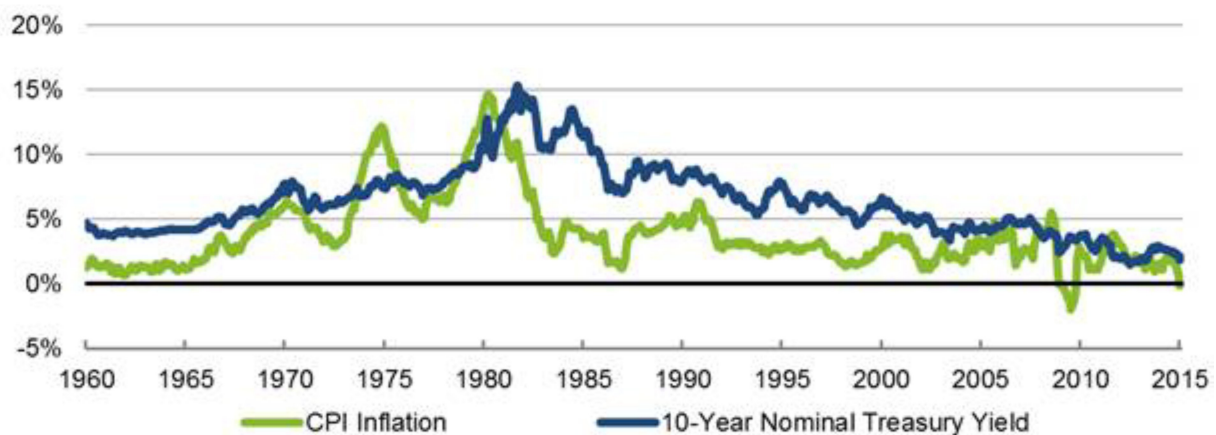
¹²⁵⁹ *Id.* at 10-11 (quoting Ben Bernanke, *Why are Interest Rates So Low*, Weekly Blog, Brookings Institute, March 30, 2015, <http://www.brookings.edu/blogs/ben-bernanke/posts/2015/03/30-why-interest-rates-so-low>, Ex. CAP-22 at 315).

whether low-interest rates are an aberration.¹²⁶⁰

Low interest rates are not a short-term aberration, but part of a long-term trend. As [Figure 2 below] shows, ten-year government bond yields in the United States were relatively low in the 1960s, rose to a peak above 15 percent in 1981, and have been declining ever since. That pattern is partly explained by the rise and fall of inflation, also shown in the figure. All else equal, investors demand higher yields when inflation is high to compensate them for the declining purchase power of the dollars with which they expect to be repaid. But yields on inflation-protected bonds are also very low today; the real or inflation-adjusted return on lending to the U.S. government for five years is currently about minus .1 percent.

Figure 2
Interest Rates and Inflation 1960-Present,

(As Cited by Dr. Bernanke)



Source: Federal Reserve Board, BLS.

BROOKINGS

344. Dr. Woolridge explained that the capital market conditions underlying Opinion Nos. 531-A and 531-B were anomalous in that real interest rates were negative for almost the entire period.¹²⁶¹ That aberration has since been corrected, but interest rates remain well below the 1980s peak and more in line with the pre-1965 norm.¹²⁶² Dr. Woolridge testified that low interest rates persist due to the low level of inflation in the U.S. and

¹²⁶⁰ *Id.* at 11 (quoting Ben Bernanke, *Why are Interest Rates So Low*, Weekly Blog, Brookings Institute, March 30, 2015, <http://www.brookings.edu/blogs/ben-bernanke/posts/2015/03/30-why-interest-rates-so-low>, Ex. CAP-22 at 315).

¹²⁶¹ *Id.* at 12.

¹²⁶² *Id.*

genuine, persistent characteristics of the global economy.¹²⁶³ He concluded that, as such, current financial conditions are no longer “anomalous,” and certainly not in a way that should undercut reliance on the indications provided by reasonable DCF modeling.¹²⁶⁴

345. Dr. Woolridge testified that broadly speaking, there is a risk/reward spectrum with bonds at the low risk/low reward end, non-utility equities at the high risk/high reward end, and utility equities in the middle.¹²⁶⁵ It is a normal feature of efficient capital markets that changes in investors’ risk appetites change the distribution of preferences across this spectrum. Dr. Woolridge accused Ms. Lapon of dramatizing this normal phenomenon by calling it “successive and repeated rounds of ‘flights-to-safety’ in which investors en masse flipped from risk-accepting investments (‘risk-on’) into risk-averse (‘risk-off’) flights-to-safety, embracing defensive, dividend-yielding securities.”¹²⁶⁶ With utility equities sitting in the middle of the risk/reward spectrum, an increase or decrease in investor appetite for risk does not, by itself, necessarily result in a corresponding net change in demand for utility stocks. Moreover, Dr. Woolridge believes that the Federal Reserve’s QE III asset buying program, large as it was, was modest relative to the overall global value of tradable securities, and therefore cannot have been the predominant factor in setting stock prices.¹²⁶⁷ Additionally, he testified that the QE III expansion of the Federal Reserve’s balance sheet is now receding in investors’ rear-view mirror, and utility stock prices have not collapsed.¹²⁶⁸

346. Dr. Woolridge testified that throughout the proceeding leading up to Opinion No. 531, the NETOs (and other economists) erroneously asserted that interest rates were about to increase.¹²⁶⁹ He cited a *Market Watch* article:¹²⁷⁰

The survey of economists’ yield projections is generally skewed toward rising rates – only a few times since early 2009 have a majority of respondents to the Bloomberg survey thought rates would fall. But the unanimity of the rising rate forecasts in the spring was a stark reminder of how one-sided market views can become. It also teaches us that economists can be universally wrong.

¹²⁶³ *Id.*

¹²⁶⁴ *Id.*

¹²⁶⁵ *Id.*

¹²⁶⁶ *Id.* at 13.

¹²⁶⁷ *Id.*

¹²⁶⁸ *Id.*

¹²⁶⁹ *Id.*

¹²⁷⁰ *Id.* (quoting Ben Eisen, *Yes, 100% of economists were dead wrong about yields*, *Market Watch* (October 22, 2014 8:01 AM), <http://www.marketwatch.com/story/yes-100-of-economists-were-dead-wrong-about-yields-2014-10-21>, Ex. CAP-22 at 312).

347. Dr. Woolridge testified that for many years, Dr. Avera has been citing sources that have been predicting large near-term increases in utility bond yields and that these predictions have been consistently and substantially wrong.¹²⁷¹ He showed that, on average, the actual yields have run about 200 basis points below the predictions made about two years ahead, and that his forecast errors for other advance horizons have also been substantial.¹²⁷²

348. Dr. Woolridge quoted a Moody's article on utility ROEs and credit quality, in which Moody's recognizes that authorized ROEs for electric and gas companies are declining due to lower interest rates.¹²⁷³

Robust cost recovery mechanisms will help ensure that US regulated utilities' credit quality remains intact over the next few years. As a result, falling authorized ROEs are not a material credit driver at this time, but rather reflect regulators' struggle to justify the cost of capital gap between the industry's authorized ROEs and persistently low interest rates. We also see utilities struggling to defend this gap, while at the same time recovering the vast majority of their costs and investments through a variety of rate mechanisms.

According to Dr. Woolridge, this article provides direct evidence that lower ROEs are not hurting the financial integrity of utilities or their ability to attract capital and the article also indicates that the utility industry has had no problem attracting capital and raises about \$50 billion in capital each year.¹²⁷⁴ He stated that the article also points out that the lower risk profile of electric utilities has led to lower capital costs and higher stock valuation levels.¹²⁷⁵

349. Dr. Woolridge provided excerpts showing that investment analysts who cover the NETOs' parent firms do not view regulators' allowed ROEs as so low that they place at risk NETOs' ability to attract capital:

“Utility Sector returns likely best in class. Estimates for slow US GDP growth support the view that 8-10% forecasted average utility sector total returns should stack up well to alternative investments.”¹²⁷⁶

¹²⁷¹ *Id.* at 14.

¹²⁷² *Id.* (see Ex. CAP-8).

¹²⁷³ *Id.* at 18 (quoting Moody's Investors Service, Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles, March 10, 2015, *available at* https://www.moody.com/MdcAccessDeniedCh.aspx?lang=en&cy=global&Source=https%3a%2f%2fwww.moody.com%2fviewresearchdoc.aspx%3fdocid%3dPBC_1003101%26lang%3den%26cy%3dglobal).

¹²⁷⁴ *Id.*

¹²⁷⁵ *Id.* at 18-19.

¹²⁷⁶ *Id.* at 19 (quoting Ex. CAP-25, Robert W. Baird & Co., June 2, 2013 (response

“...[P]remium FERC ROEs which result into higher equity earnings should allow the company to take advantage of accommodating debt capital market conditions to finance its expansion through debt and retained earnings. Even though each of the NU’s utilities has regulated capital structure with 47-52% equity layers, the company should be able to raise debt on the corporate level and push it into subsidiaries in the form of equity to finance various growth initiatives.”¹²⁷⁷

“Transmission investments and related rate increases are the key earnings growth drivers in our forecasts. ... [W]e expect transmission to grow to 40% of [Northeast Utilities’] total rate base by 2016, and near 50% of earnings based on the much higher returns these projects are earning.”¹²⁷⁸

“We believe NU shares deserve a premium valuation given the ... heavy concentration of FERC-regulated earnings...”¹²⁷⁹

“If either [Access Northeast or Northern Pass] doesn’t happen, EPS growth [for Eversource Energy, formerly Northeast Utilities] likely slips to the lower end of its range of 6-8% EPS growth, still quite respectable in a world in which 4-5% is the utility norm.”¹²⁸⁰

350. Dr. Woolridge testified that Ms. Lapson claimed that he misjudged the riskiness of his Electric Proxy Group relative to the NETOs, and that the NETOs are in fact riskier.¹²⁸¹ She specifically took issue with the way in which Ex. CAP-5 at 7 and CAP-6 at 7 treated three NETOs (New Hampshire Transmission LLC (“NHT”), Unitil Energy Systems (“UnitilES”), and Vermont Transmission Company) that at one point did not have Moody’s or S&P ratings at the operating subsidiary level.¹²⁸² Since NHT is a subsidiary of NextEra, he assigned NHT the same rating as NextEra.¹²⁸³ He testified that this is a conservative approach, given that NextEra’s more leveraged capital structure has given it a credit rating lower than that of NextEra’s A1-rated principal operating

to CAP-NET-1-7, UI file at 60)).

¹²⁷⁷ *Id.* at 20 (quoting Ex. No. CAP-25, Citi Research, Oct. 9, 2014 (response to CAP-NET-1-7, Eversource file at 338)).

¹²⁷⁸ *Id.* (quoting Ex. No. CAP-25, Morningstar, Apr. 8, 2014 (response to CAP-NET-1-7, Eversource file at 8)).

¹²⁷⁹ *Id.* (quoting Ex. No. CAP-25, Wells Fargo, Sep. 29, 2014 (response to CAP-NET-1-7, Eversource file at 288)).

¹²⁸⁰ *Id.* (quoting Ex. No. CAP-25, UBS Global Research, Feb. 19, 2015 (response to CAP-NET-1-7, Eversource file at 641)).

¹²⁸¹ *Id.* at 22 (citing Ex. NET-1600 at 8; Ex. NET-1403).

¹²⁸² *Id.* at 22-23.

¹²⁸³ *Id.* at 23.

company subsidiary.¹²⁸⁴ He assigned no rating to the other two companies because, at the time he prepared that portion of his direct testimony, they were not rated by those two particular rating agencies.¹²⁸⁵ He noted, however, that Unitiles now does have an S&P rating at the operating subsidiary level – it received a BBB+ rating on December 23, 2014, just four business days before his direct testimony was filed, and he did not become aware of that rating in time to include it in that pre-filed testimony.¹²⁸⁶ He also noted that Vermont Transmission Company has an A rating from the leading Canadian credit rating agency, DBRS, which is the only credit rating agency that has been called upon to review its credit.¹²⁸⁷ In her reassessment of Dr. Woolridge’s credit rating analysis, Ms. Lapson recalculated the credit scores for the NETOs by assigning S&P and Moody’s credit ratings of BBB- and Baa3 for all three entities that she thought lacked direct ratings.¹²⁸⁸

351. Dr. Woolridge testified that Ms. Lapson’s misapprehension that Unitiles had no credit rating and therefore would be viewed by investors as rated BBB- contrasts sharply with the BBB+ rating that Unitiles had actually received before she presented that testimony and is equally inconsistent with Opinion No. 531.¹²⁸⁹ Opinion No. 531 at n.209 stated: “We note that the credit ratings bands are based on only those NETOs that have credit ratings from S&P and Moody’s.” Rather than impute BBB- ratings to unrated entities, Opinion No. 531 established the credit rating risk band for the NETOs by implicitly finding the unrated NETOs to pose credit risks comparable to those of the rated NETOs.¹²⁹⁰ In addition, Ms. Joe highlighted that longstanding Commission precedent uses the credit rating of the publicly traded parent when there is no evidence that the subsidiary has a different stand-alone business and financial risk.¹²⁹¹

352. Dr. Woolridge updated Ms. Lapson’s Ex. NET-1403, which includes the adjustments discussed above as well as the new BBB+ credit rating for Unitiles.¹²⁹² With that update, the average S&P and Moody’s credit scores are 2.73/2.67 for his proxy group and 3.08/2.73 for the NETOs.¹²⁹³ Dr. Woolridge concluded that Ms. Lapson’s analysis is flawed and inconsistent with Opinion No. 531 and he thereby stands by the conclusion he reached in his direct testimony – that the NETOs are slightly *less* risky than his

¹²⁸⁴ *Id.* (citing Ex. CAP-22 at 324, Moody’s, *U.S. Regulated and Gas Utilities: High Leverage at the Parent Often Hurts the Whole Family*, at 2 (May 11, 2015)).

¹²⁸⁵ *Id.*

¹²⁸⁶ *Id.*

¹²⁸⁷ *Id.*

¹²⁸⁸ *Id.*

¹²⁸⁹ *Id.*

¹²⁹⁰ *Id.*

¹²⁹¹ *Id.* at 23-24 (see, e.g., *Potomac-Appalachian Transmission Highline, LLC*, 122 FERC ¶ 61,188 at PP 97-98).

¹²⁹² *Id.* at 24 (citing Ex. CAP-28).

¹²⁹³ *Id.*

Electric Proxy Group.¹²⁹⁴

353. Dr. Woolridge testified that in calculating the dividend yield for proxy companies for the six month period, Dr. Avera used the last month's dividend for all six monthly dividend yield calculations instead of using each month's own dividend.¹²⁹⁵ Dr. Woolridge noted that this method is an upward-biasing change from the method that Dr. Avera used in Complaint I, and in other FERC proceedings.¹²⁹⁶ He further noted that it is directly contrary to the step-by-step instruction for dividend yield calculation provided in Opinion No. 531, which provides that an:¹²⁹⁷

...appropriate method of calculating the average dividend yield because 'it matches each average monthly stock price *with the actual dividend paid for that month* to calculate the actual dividend yields for each of the preceding six months.' As the Commission also noted in Portland, this method is preferable to calculating the estimated dividend yield for each proxy group member based only on the dividend declared in the final month of the period. *Using only the dividend declared in the final month results in a mismatch between the stock prices and the dividends used to calculate a firm's dividend yield. This can result in overstated dividend yields, particularly when a firm raises its dividends or distributions during the six-month study period*, because earlier stock prices do not reflect the increased value of the stock resulting from the increased dividend or distribution.

354. Dr. Woolridge concluded that Dr. Avera follows the approach expressly rejected in Opinion Nos. 510 and 531; he uses only the dividend declared in the final month.¹²⁹⁸ He explained that for any retained proxy, the last month's dividend is always equal to or greater than the first month's dividend, because if a firm's dividend is reduced during (or not long before) the study period, it falls out of the proxy group on that basis. Consequently, the resulting distortion of the DCF results goes in only one direction: it biases the DCF results upwards.¹²⁹⁹

355. Dr. Woolridge explained how Dr. Avera squared his new approach with Opinion Nos. 531 and 510. Dr. Avera argued that his procedure is consistent with the language of footnote 135 of Opinion No. 531, which states that "[i]n Opinion No. 510, the commission approved the use of the most recent dividend declared by the relevant company to determine the 'indicated annual dividend' for each of the six months."¹³⁰⁰ Dr. Woolridge explained that the point of this sentence is that because dividends are declared

¹²⁹⁴ *Id.*

¹²⁹⁵ *Id.* at 26.

¹²⁹⁶ *Id.*

¹²⁹⁷ Opinion No. 531, 147 FERC ¶ 61,234 at PP 77-78.

¹²⁹⁸ Ex. CAP-19 at 26.

¹²⁹⁹ *Id.*

¹³⁰⁰ *Id.* at 27.

quarterly, 8 of 12 months have no dividend, and for those months, the annualized dividend is calculated by identifying the dividend declared in the prior month (or the month before that) and multiplying it by four, instead of (for example) reaching back further to find four declared dividends to be summed.¹³⁰¹ Dr. Woolridge testified that Dr. Avera misread “most recent” as if it meant the last month’s dividend rather than the dividend declaration that was most recent at the time of each of the six months.¹³⁰² While footnote 135 is terse, Dr. Woolridge found the Commission’s intent unmistakable when the footnote is read together with the associated Opinion No. 135 body text and with Opinion No. 510, which the footnote cites.¹³⁰³ Dr. Woolridge explained that Dr. Avera’s testimony using the last month’s dividend six times is “consistent” with the language of the footnote, while failing to disclose or address the direct conflict between his approach and the main text.¹³⁰⁴

356. Dr. Woolridge stated that Dr. Avera, in his answering testimony,¹³⁰⁵ added an analysis for both time periods using Value Line’s EPSG.¹³⁰⁶ This Value Line growth rate is not calculated by comparing Value Line’s most recent historical EPS to its most distant forecast EPS, consistent with the calculation approach formerly used (under the Commission’s standard version of the DCF model prior to Opinion No. 531) in deriving “br+sv” growth estimates from Value Line data.¹³⁰⁷ Instead, Dr. Avera takes his EPSG from the “Annual Rates” box at the left center of the standard-format Value Line page.¹³⁰⁸ As Value Line indicates there, this EPSG is the projected growth from a multi-year baseline period to a multi-year projected period. E.g., the growth rate presented by Value Line in reports published during 2014 shows growth from the 2011-13 actual average to the 2017-19 estimate.¹³⁰⁹ Dr. Woolridge testified that this method is contrary to Opinion No. 531, which, while allowing reference to other sources of 5-year growth expectations, requires that it be comparable to IBES data, i.e., be forward looking from the study period and look out three-to-five years from there.¹³¹⁰ According to Dr. Woolridge, the Value Line Annual Rates box does not meet this criterion and violates the intellectual premise of DCF methodology because it doesn’t use investors’ *forward-looking* growth estimate as of the time they purchased the stock during the study period.¹³¹¹ By relying on a multi-year historical base period, this approach distorts expected growth from today. Dr. Avera agreed on deposition that under the DCF

¹³⁰¹ *Id.*

¹³⁰² *Id.*

¹³⁰³ *Id.*

¹³⁰⁴ *Id.*

¹³⁰⁵ Exs. NET-1304.2 and NET-1315.2.

¹³⁰⁶ Ex. CAP-19 at 30.

¹³⁰⁷ *Id.*

¹³⁰⁸ *Id.*

¹³⁰⁹ *Id.*

¹³¹⁰ *Id.*

¹³¹¹ *Id.*

methodology, the premise is that an investor buying stock in Complaint III wants to know how earnings per share are going to increase looking forward from the time they had purchased stock, not looking forward from 2011.¹³¹² Going back three years brings into the earnings baseline past years that preceded the strong earnings growth of U.S. utilities as their loads recovered from the Great Recession, and the even stronger recent earning growth experienced by diversified proxies like Otter Tail and Vectren, as their non-utility businesses recovered.¹³¹³ Dr. Woolridge explains that this reference to Value Line data takes earnings growth that has already happened, and treats it as earnings growth that investors expect will happen in the future.¹³¹⁴ It also double-counts past dividend growth that is reflected in study-period dividend yields.¹³¹⁵ For companies whose 2011-2013 earnings growth happens to align with expected 2014-2018 growth, the distortion is relatively insignificant.¹³¹⁶ But for Otter Tail, whose substantial non-electric construction business was hit hard during 2011-12, it results in an earnings growth measure that has no relation to study-period investor expectations.¹³¹⁷

357. Dr. Woolridge explained we know that Otter Tail's earnings during the 2011-13 baseline period used by Value Line was depressed by the results of Otter Tail's non-utility businesses because Otter Tail said so in its annual report to shareholders covering 2011 and in its February 2012 earnings news release.¹³¹⁸

358. Dr. Woolridge explained that Dr. Avera, as his basis for opposing the Commission's reference to GDP growth, cited his "NET-900" testimony that was filed in the Complaint I paper hearing on the second-stage growth rate.¹³¹⁹ That testimony asserts that one-year snapshots of Value Line EPSGs taken in 1984, 1994, 2004, and 2014 do not show a declining trend, because even though that projection was lower in 1994 than in 1984 and lower in 2004 than in 1994, the snapshot taken in 2014 showed EPSGs had risen again.¹³²⁰ Dr. Woolridge called this a meaningless way to check for a declining trend, because the four snapshots catch business and investment cycles for varying magnitudes at different points.¹³²¹ He equated this analysis to someone at the beach taking four snapshots of the ocean, with the first and fourth snapshots happening to catch waves of similar heights, and concluding that there is no tide.¹³²² According to Dr. Woolridge, Dr. Avera's contention depends entirely on the fact that Value Line EPSGs

¹³¹² *Id.* at 30-31.

¹³¹³ *Id.* at 31.

¹³¹⁴ *Id.*

¹³¹⁵ *Id.*

¹³¹⁶ *Id.*

¹³¹⁷ *Id.*

¹³¹⁸ *Id.* (see Ex. CAP-30).

¹³¹⁹ *Id.* at 35.

¹³²⁰ *Id.*

¹³²¹ *Id.*

¹³²² *Id.*

published in 2014 exhibited relatively high near-term EPSGs, but those EPSGs were high (especially for Otter Tail) largely because their base period reached back three years, into a period when the U.S. economy had barely emerged from the Great Recession.

359. Dr. Woolridge explained that the Commission's standard test for whether to retain or discard relatively low proxy ICOEs is that the ICOE must exceed the study-period utility bond yield by 100 basis points, give or take a few basis points, if a "natural break" in the distribution of ICOEs lies slightly above or below that 100 bp threshold.¹³²³

360. Dr. Woolridge pointed out that Dr. Avera criticized¹³²⁴ one of Dr. Woolridge's DCF studies for retaining a 6.34% ICOE that he says is lower than the predicted future bond yield. According to Dr. Woolridge, this argument does not accord with the concept underlying the comparison of ICOEs to bond yields, which is that investors would not purchase utility stock if they could earn almost as much by purchasing less risky bonds.¹³²⁵ For an investor making that comparison, waiting for predicted future bond yields to materialize would present additional risk and would cost the opportunity to earn a return on present utility bonds or present utility equities.¹³²⁶ Dr. Woolridge clarified that the proper comparison is between study-period actual utility bond yields and study-period ICOEs.¹³²⁷

361. Dr. Woolridge testified that Dr. Avera¹³²⁸ and Ms. Lapson¹³²⁹ alluded to the bond yield comparison as a basis for claiming that anomalous financial market conditions are distorting DCF results. He explained that the DCF model is centered on inferring the cost of equity to the investors who transacted in proxy company stocks during the study period, and the 100 bp spread continues to provide an ample margin for assuring that the DCF ICOEs are modeling rational investor behavior.¹³³⁰ He does not agree that present financial market conditions call for discarding even more low-end ICOE results, but stated that raising the low-end retention threshold would not be expected to have more than a modest effect on the DCF median.¹³³¹

362. Dr. Woolridge testified that Dr. Avera apparently treats M&A activity as irrelevant to proxy group composition if it is completed or abandoned during the six-month DCF study period. That is, he requires the transaction to be ongoing. According to Dr. Woolridge, such a standard would lose sight of the reason for excluding merging

¹³²³ *Id.* at 36.

¹³²⁴ Ex. NET-1300 at 102.

¹³²⁵ Ex. CAP-19 at 36.

¹³²⁶ *Id.* at 36-37.

¹³²⁷ *Id.* at 37.

¹³²⁸ Ex. NET-1500 at 28.

¹³²⁹ NET-1600 at 26.

¹³³⁰ Ex. CAP-19 at 37.

¹³³¹ *Id.*

companies. The reason is that significant mergers can, and typically do, have a significant effect on the merging companies' DCF inputs. Even if the merger is completed or abandoned during the six-month study period, this distortion remains a historical fact that will have affected study-period investor expectations, associated stock prices during months included in the dividend yield computation, and the baseline and forecast conditions for analyst EPSG forecasts that may remain in the IBES (or other) consensus EPSG for many months after the merger ends.¹³³²

363. Dr. Woolridge disagrees with Dr. Avera's characterization of Opinion No. 531 as having "specifically ruled out excluding proxy firms without a concrete showing that the transaction 'impacted the DCF results by distorting the companies' stock prices, dividends, or growth rates.'" Dr. Woolridge stated that Opinion No. 531 affirmed the Commission's longstanding practice of "eliminate[ing] from the proxy group any company engaged in M&A activity significant enough to distort the DCF inputs."¹³³³ Dr. Woolridge testified that the commission has not required participants supporting exclusion to trace out specifically how a major study-period M&A transaction distorted a DCF input.¹³³⁴ Dr. Woolridge believes that there is no dispute that both the ITC and UIL transaction constituted "M&A activity significant enough to distort the DCF inputs."

364. Dr. Woolridge testified that Exhibit CAP-32 charts the ITC and Dow Jones Utilities stock prices over the period December 6-16, 2013, indexed to their respective levels on December 9. That scale includes and highlights how investors responded to the December 10 and December 13 news that the ITC-Entergy transaction was definitely rejected by state regulators and then terminated by the companies. ITC's stock price had been moving in alignment with the DJU, but broke the other way once investors learned this clarifying news. Over the relevant next business week, ITC's share price rose 2.5% from its December 9 level, while the DJU declined 2%. Dr. Avera found it significant that "on December 13, 2013 when termination of the merger with Entergy was announced, ITC's stock rose by [only] a modest 0.7%."¹³³⁵ But, that 0.7% rise represents only the third, and smallest, of ITC's three rising-price days that week, each of which followed in the news that Mississippi had rejected the merger, and each of which coincided with DJU declines.¹³³⁶ Dr. Woolridge noted that this was just the effect of the ITC-Entergy transaction moving from improbable to terminated.¹³³⁷ Regulatory review of the ITC-Entergy transaction unfolded over a longer period, with analysts and investors gaining and accounting for information no its prospects and effects bit by bit over time.¹³³⁸ For this reason, the question should only be whether DCF inputs were affected

¹³³² *Id.* at 39.

¹³³³ *Id.* at 40 (citing Opinion No. 531, 147 FERC ¶ 61,234 at n.221).

¹³³⁴ *Id.*

¹³³⁵ *Id.* at 41-42 (quoting NET-1500 at 45).

¹³³⁶ *Id.* at 42.

¹³³⁷ *Id.*

¹³³⁸ *Id.*

by the transaction's termination, but also whether DCF inputs were affected by the transaction's pendency before it was terminated.¹³³⁹ Dr. Woolridge thinks it reasonable to infer that by reducing ITC's share price before and during the fall of 2013, the merger's pendency inflated ITC's study-period dividend yield.¹³⁴⁰

365. Dr. Woolridge thinks that the merger had a larger effect on the consensus study-period EPSG forecasts for ITC than it had on ITC's stock price.¹³⁴¹ His basis for inferring that the transaction's pendency had affected study-period analyst EPSG forecasts is on Exhibit CAP-33, an October 31, 2012 analyst report on ITC by UBS.¹³⁴² From its 2011 baseline through 2016, it forecasts a 16.18% "CAGR," meaning compound annual growth rate in earnings per share, i.e., a 16.18% EPSG.¹³⁴³ The report explicitly and repeatedly ties this growth rate forecast to merger-related growth potential.¹³⁴⁴ For example, it states (at 3) that "The pending potential Entergy transaction is likely pivotal to ITC's growth trajectory through the later part of the decade." In this analysis, UBS assigned a 50% probability to the merger closing.¹³⁴⁵

366. As for the UIL merger, Dr. Woolridge testified that the planned merger was announced Monday, March 3, 2014 and that over that business week, UIL's stock price fell by almost 9% from the prior Friday's close.¹³⁴⁶ The news that the Philadelphia City Council would not vote on the proposal, indicating a low likelihood that the transaction would close, broke Monday, October 27, 2014.¹³⁴⁷ In neither case did these stock price changes resemble the movement of the broader DJU.¹³⁴⁸

367. Dr. Woolridge views the decision to include/exclude Northwestern Energy (NWE) as a close call and, being that excluding it from his Complaint II study period would only move the indicated median by 4 basis points, he does not feel it is a major issue.¹³⁴⁹

368. Dr. Woolridge reasoned that a decision to place the ROE in this case on the basis of a percentile rather than the extremes would have the beneficial effect of putting inclusion/exclusion calls in their proper perspective and allow the Commission, to the benefit of ratepayers and investors, to focus its attention on inherently relevant and recurring issues like how to compare the overall risks of proposed proxy groups to the

¹³³⁹ *Id.*

¹³⁴⁰ *Id.*

¹³⁴¹ *Id.* at 43.

¹³⁴² *Id.*

¹³⁴³ *Id.*

¹³⁴⁴ *Id.*

¹³⁴⁵ *Id.*

¹³⁴⁶ *Id.* at 44.

¹³⁴⁷ *Id.*

¹³⁴⁸ *Id.*

¹³⁴⁹ *Id.* at 44-45.

overall risks of subject utilities.¹³⁵⁰

369. For Portland General for the Complaint II study period, Dr. Woolridge testified that, due to erroneous data provided by Thomson Reuters to Yahoo Finance, he and Dr. Avera used an EPSG value of 8.03%, and that only Ms. Joe used the correct value of 6.60%.¹³⁵¹ He stated that substituting the correct input reduces his Portland General ICOE for that period to 9.67%, which does not affect the median or 75th percentile, but does result in the top of the range falling to what had been the second-highest ICOE: the 10.36% ICOE for PG&E Corporation.¹³⁵² This changes the midpoint to 8.69% and reduces the top quarter to 9.52%.¹³⁵³ Dr. Woolridge adopted Ms. Joe's new information as a correction of his DCF inputs.¹³⁵⁴

370. Dr. Woolridge summarized the principal findings he took from his DCF analyses – his medians are 8.75% for the first period, and 8.55% (subject to updating) for the second period.¹³⁵⁵

371. Dr. Woolridge identified and rebutted six claims presented by Dr. Avera in support of using the midpoint.¹³⁵⁶ First, Dr. Avera called advocating for the median as the best summary for the DCF analyses a “collateral attack on well-established Commission precedent.”¹³⁵⁷ Dr. Woolridge responded that in adopting neither the midpoint nor the median in Opinion No. 531, the commission stated that in subsequent hearings, including this one, all points within the DCF range were available to the Presiding Judge for his case-specific evaluation.¹³⁵⁸ He surmised that if the evidence points toward the median being the cost-based ROE, there is no prohibition on it being considered.¹³⁵⁹ During his deposition, Dr. Avera agreed with the CAPs' position on this threshold issue.¹³⁶⁰ Second, Dr. Avera argued that the DCF median is below the cost of equity.¹³⁶¹ Dr. Woolridge believes that conclusion cannot be reached on the basis of the DCF studies themselves, and it therefore depends entirely on his non-DCF metrics.¹³⁶² Third, Dr. Avera

¹³⁵⁰ *Id.* at 45.

¹³⁵¹ *Id.* at 46.

¹³⁵² *Id.*

¹³⁵³ *Id.*

¹³⁵⁴ *Id.*

¹³⁵⁵ *Id.* at 47.

¹³⁵⁶ *Id.*

¹³⁵⁷ *Id.* (see Ex. NET-1300 at 104).

¹³⁵⁸ *Id.* at 47-48.

¹³⁵⁹ *Id.* at 48.

¹³⁶⁰ See Ex. No. CAP-20, Tr. 60-61 (“[T]he fact finder should, before they come to any ROE, determine whether it would meet *Hope* and *Bluefield*. And if that number happens to be the median, then that would be the number to choose”).

¹³⁶¹ *Id.*

¹³⁶² *Id.*

presented¹³⁶³ a hypothetical five-estimate sample and asserted that the midpoint would represent this array more robustly and accurately than would the median.¹³⁶⁴ However, Dr. Woolridge noted that Dr. Avera's actual array does not resemble the hypothetical array. Fourth, Dr. Avera asserted that Dr. Woolridge's testimony about how Yahoo Finance earnings growth projections can be erroneous and thereby distort the midpoint "involves a great deal of surmise and speculation."¹³⁶⁵ However, Dr. Avera has acknowledged that the DCF ICOE for any one proxy company "inherently incorporate[s] a degree of error."¹³⁶⁶ Dr. Woolridge reiterated that the midpoint metric is especially prone to being distorted by an error and that the CAPs have procured additional relevant information from Thomson Reuters that validates Dr. Woolridge's claims that significant errors occur at each step of the chain from actual analyst earnings growth projections, to the analyst consensus maintained by IBES, to Yahoo Finance posting of Thomson Reuters' ESPGs, to the dating attributed to those EPSGs by Yahoo Finance.¹³⁶⁷ Fifth, Dr. Avera suggested that costs associated with floating large new public issuances of utility stock would support an upwards ROE adjustment of several dozen basis points.¹³⁶⁸ However, under Commission precedent, flotation cost adjustments not permitted without "actual test period evidence that such costs can be expected to incurred" and "sufficient evidence to show that common stock will be issued in the near term."¹³⁶⁹ Dr. Woolridge stated that NETOs have presented no such evidence; to the contrary, Dr. Avera testified that he has no knowledge of any planned NETO secondary offering,¹³⁷⁰ and the evidence is that NETOs can fund their capital investments out of retained earnings and through low-interest bonds, without a secondary stock offering.¹³⁷¹ Six, Dr. Avera claimed¹³⁷² that the midpoint is the single ROE value that is "most representative of the range of risks that investors associate with a broad group of transmission owners." However, Dr. Woolridge points out that the location of the *extremes* of the DCF ICOE array is not the only, nor most important, information on the risks and equity costs that investors associate with a broad group of transmission owners.¹³⁷³ Dr. Woolridge explained that the *distribution* of ICOEs within that range provides more and more important information, especially now that range top is pushed upwards by reference to a national rather than regional proxy group, to a risk band intentionally broader than the risks of the NETOs themselves, and to

¹³⁶³ Ex. NET-1300 at 107.

¹³⁶⁴ Ex. CAP-19 at 48.

¹³⁶⁵ *Id.* (quoting Ex. NET-1300 at 91).

¹³⁶⁶ *Id.* at 48-49 (quoting CAP-20, Tr. 125-126).

¹³⁶⁷ *Id.* at 49.

¹³⁶⁸ *Id.*

¹³⁶⁹ *Id.* (quoting *Bangor Hydro-Elec. Co.*, Opinion No. 489, 117 FERC ¶ 61,129 P 87 (2006)).

¹³⁷⁰ Ex. CAP-20 (see Tr. 176-179).

¹³⁷¹ Ex. CAP-19 at 49 (citing Ex. CAP-20, Tr. 176-179).

¹³⁷² Ex. NET-1300 at 104.

¹³⁷³ Ex. CAP-19 at 49.

proxies with revenues substantially composed of non-cost based ROE adders.¹³⁷⁴

372. Dr. Woolridge found it apparent that the end-of-April Reuters.com and Yahoo Finance 11.58% EPSG did not include a recent significantly lower multi-year EPSG implicitly projected for ITC Holdings by Goldman Sachs.¹³⁷⁵ In a portion of its April 12, 2015 review of U.S. utility equities, subtitled “ITC Holdings (ITC): The Regulators are Mounting Up; Initiate at Sell,” Goldman Sachs projected out-year EPSG earnings for ITC that indicate a multi-year EPSG of 7.1%, not 11.58%.¹³⁷⁶ Dr. Woolridge did not present this reduced estimate as one that he thinks should be substituted for the IBES consensus forecast in forming the median; he presents it as a reminder that the IBES consensus is an estimate, not an exact measure, of what investors are told to expect for a proxy’s growth, and as a caution against relying on a midpoint that depends so heavily on one such inexact estimate.¹³⁷⁷

373. Dr. Woolridge described Dr. Avera’s alternative benchmarks, which include (1) a DCF applied to non-regulated industrial companies; (2) a CAPM analysis that includes a market risk premium based on applying the DCF model to the S&P 500; (3) several risk premium analysis that are based on the spread between FERC and/or State authorized ROEs and utility bond yields; (4) an Expected Earnings approach, and (5) ROEs authorized by state commissions in the near or distant past.¹³⁷⁸

374. Dr. Woolridge explained that Dr. Avera’s prefiled answering testimony included two studies¹³⁷⁹ that used non-utility firms as proxies. Each non-utility study somewhat resembles the DCF studies of electric utilities that are presented in Exs. NET-1304 and -1315, in that a number purporting to represent each proxy’s dividend yields is combined with analyst forecasts of that proxy’s earnings per share growth over several years, and significance is then placed on the midpoint between the lowest and highest proxy values in the resulting array.¹³⁸⁰ Moreover, in both the utility and non-utility DCF studies as Dr. Avera performed them, the dividend yield is inflated by dividing six recent months’ stock prices into the most recent month’s dividend level.¹³⁸¹

375. Dr. Woolridge further explained that Dr. Avera’s non-utility DCF model differs from his electric utility DCF model in three important regards. First, his screening criteria for the two studies are not comparable. For example, the electric utility proxy screening criteria require issuer credit ratings, but the non-utility DCF studies screen only for

¹³⁷⁴ *Id.* at 50.

¹³⁷⁵ *Id.*

¹³⁷⁶ *Id.* at 50-51.

¹³⁷⁷ *Id.* at 51.

¹³⁷⁸ *Id.* at 52.

¹³⁷⁹ Exs. NET-1323 and NET-1312.

¹³⁸⁰ Ex. CAP-19 at 52.

¹³⁸¹ *Id.*

“investment grade” bond ratings; the electric utility proxy criteria screen out firms involved in significant mergers, but the non-utility proxy criteria do not consider merger activity; the electric utility screening criteria do not include any maximum “beta” (a measure of the extent to which a stock’s price fluctuates, relative to fluctuations of the broader stock market), but the non-utility screening criteria do; and unlike the electric utility screening criteria that do not consider the firm’s Value Line “financial strength” grade, the non-utility screening criteria do, and they thereby select for firms with growing earnings prospects.¹³⁸² Second, rather than preparing one study using IBES estimates of EPSG and another using Value Line estimates, for the non-utility study Dr. Avera averaged those two EPSG sources within a single study.¹³⁸³ Third, where the electric utility DCF studies follow Opinion No. 531 in applying a second-stage growth factor that reflects realistic expectations for long-term GDP growth, the non-utility study applies no such constraint.¹³⁸⁴ Instead, the study includes the counterfactual assumption that each of the non-utility proxies grows its earnings forever at the rate that analysts are projecting for the next few years, even as those proxies’ earnings recover from the relatively low profitability years immediate following the Great Recession.¹³⁸⁵

376. Dr. Woolridge testified that both Opinion Nos. 531 and 531-B, and Judge Cianci’s related Initial Decision, declined to place any weight on the generally similar non-utility DCF analysis that Dr. Avera presented in Complaint I.¹³⁸⁶ He agrees that the results of the DCF analysis are most meaningful when the proxy companies are kept as similar as practicable to the utilities at issue.¹³⁸⁷

377. Dr. Woolridge testified that Dr. Avera’s suggestion that ebbs and flows in equity investors’ enthusiasm for the utility sector should be downplayed is contrary to the purpose of this proceeding because that variation means that the cost that ratepayers must pay in order to induce them to invest their equity capital is ebbing and flowing, and that variation should be reflected in the allowed ROE.¹³⁸⁸ He similarly criticized Ms. Lapson’s assertion that “Investors who were lured by the Fed’s monetary operations into buying dividend-paying shares in unusual quantity do not represent a stable and predictable shareholder base for utility equities going forward.”¹³⁸⁹ Ms. Lapson also claimed that high stock prices are not “an indicator of strong investor confidence in future economic growth,” but only “a product of anomalous financial market conditions produced by six years of hyper stimulative U.S. monetary policy and unnaturally low

¹³⁸² *Id.*

¹³⁸³ *Id.* at 53.

¹³⁸⁴ *Id.*

¹³⁸⁵ *Id.* at 53-54.

¹³⁸⁶ *Id.* at 54.

¹³⁸⁷ *Id.*

¹³⁸⁸ *Id.* at 54-55.

¹³⁸⁹ *Id.* at 55 (quoting Ex. NET-1600 at 16).

short-term interest rates.”¹³⁹⁰ Dr. Woolridge explained, however, that stock market prices reflect investors’ expectations, including their expectations about the forward path of monetary policy, and the Federal Reserve has been quiet careful to signal markets about its monetary plans.¹³⁹¹ He testified that Ms. Lapson has provided no basis to conclude that investors who transacted in utility stock during the DCF study periods acted irrationally, and that the resulting observed stock market prices provide a far better basis for inferring the cost of equity than does Ms. Lapson’s testimony.¹³⁹²

378. Dr. Woolridge explained that it is possible that analyst enthusiasm will ebb and flow, affecting IBES (and if used, Value Line) EPSG projections, even though *investor* enthusiasm does not match that variation.¹³⁹³ That is part of why he thinks it is misdirected to base an ROE on the midpoint or top quarter DCF value, thereby tying it closely to the one proxy with the highest analyst-projected EPS growth over a period of a few years’ duration, especially if that EPSG projection is the “consensus” of only one analyst.¹³⁹⁴

379. Dr. Woolridge testified that, assuming the Commission decides to give some consideration to the DCF results for a non-utility group, Dr. Avera’s non-utility DCF model is not well designed to provide meaningful results because it suffers from at least four significant flaws.¹³⁹⁵ First, it is constituted using biased and inappropriate selection criteria.¹³⁹⁶ Second, it wrongly assumes that the selected companies will be able to grow their earnings and dividends perpetually at the rate that analysts are projecting for a short-term, partially retrospective period.¹³⁹⁷ Third, it is distorted by a mismatched dividend yield calculation.¹³⁹⁸ Fourth, it reports the midpoint rather than the median of the non-utility proxy results.¹³⁹⁹

380. Dr. Woolridge testified that Dr. Avera’s selection criteria for his non-utility proxy group appears to be skewed in the direction of identifying a group that returns a high midpoint.¹⁴⁰⁰ In his generally similar analysis for Complaint I, Dr. Avera required that the non-utility proxies have a beta of “0.60 or less.”¹⁴⁰¹ Here, Dr. Avera has included non-

¹³⁹⁰ *Id.* (quoting Ex. NET-1400 at 28).

¹³⁹¹ *Id.*

¹³⁹² *Id.*

¹³⁹³ *Id.*

¹³⁹⁴ *Id.*

¹³⁹⁵ *Id.* at 57.

¹³⁹⁶ *Id.*

¹³⁹⁷ *Id.*

¹³⁹⁸ *Id.*

¹³⁹⁹ *Id.*

¹⁴⁰⁰ *Id.*

¹⁴⁰¹ *Id.*

utility proxies with betas up to 0.70.¹⁴⁰² The basis for change is not addressed, but the impact is significant. Both of the non-utility proxies that set of the tops of the Ex. NET-1323 and Ex. NET-1312 ranges and thus influence their midpoints have betas above 0.60.¹⁴⁰³ In the workpapers for Ex. NET-1323, Verizon's is 0.70. In the workpapers for Ex. NET-1312, Hormel's is 0.65. If those studies are adjusted only to limit them to proxies with betas of 0.60 consistent with the selection criteria Dr. Avera applied in Docket No. EL11-66, their midpoints drop considerably, as shown in Ex. CAP-36.¹⁴⁰⁴ With that single adjustment, the NET-1323 midpoint would drop to 9.61%, and the NET-1312 midpoint would drop to 9.98%.¹⁴⁰⁵ Dr. Woolridge feels that selection issues like these are a reason to disregard non-utility DCF studies rather than argue about which non-utilities are most comparable to the NETOs.¹⁴⁰⁶ With so many non-utility proxy companies to choose from, it is not practicable for the Commission to identify and account for any and all such skewing of the results.¹⁴⁰⁷ In practice, reference to a non-utility proxy group constructed by an advocate like Dr. Avera is more likely to distort than to refine the cost of finding equity.¹⁴⁰⁸

381. Dr. Woolridge explained that to be included in Dr. Avera's Non-Utility group, a firm must "have a Financial Strength Rating of 'B++' or greater."¹⁴⁰⁹ While that criterion's label may suggest that it selects for low-risk firms, it introduces an element of selection bias because of the way that Value Line rates Financial Strength.¹⁴¹⁰ According to Value Line, a high rating reflects (among other factors) "the level and direction of profits, cash flow, [and] earned returns."¹⁴¹¹ Consequently, Dr. Woolridge explained, firms with high anticipated near-term EPSGs also tend to have high DCF ICOEs because each proxy's EPSG is a main factor in deriving its ICOE.¹⁴¹² Dr. Avera's finding that a group of non-utility proxies have relatively high ICOEs therefore boils down to tautology: firms selected for high projected EPSG tend to have high projected EPSG.¹⁴¹³

382. Dr. Woolridge testified that academic and professional research have shown that

¹⁴⁰² *Id.*

¹⁴⁰³ *Id.*

¹⁴⁰⁴ *Id.*

¹⁴⁰⁵ *Id.*

¹⁴⁰⁶ *Id.*

¹⁴⁰⁷ *Id.*

¹⁴⁰⁸ *Id.* at 57-58.

¹⁴⁰⁹ *Id.* at 58 (citing Ex. NET-1300 at 51).

¹⁴¹⁰ *Id.*

¹⁴¹¹ *Id.* (citing Robert Mitkowski, *Financial Strength: What Could Be More Important In A Financial Crisis?*, Value Line (Jan. 27, 2012) http://www.valueline.com/Tools/Educational_Articles/Stocks/Financial_Strength.aspx#VUfNoNJVhBc, Ex. CAP-22 at 292).

¹⁴¹² *Id.*

¹⁴¹³ *Id.*

analysts' long-term EPS growth rates are overly-optimistic and upward biased.¹⁴¹⁴ He cited a study by Easton and Sommers which found that optimism in analysts' growth rate forecasts leads to an upward bias in estimates of the cost of equity capital of almost 300 basis points.¹⁴¹⁵

383. Dr. Woolridge testified that Dr. Avera, when questioned in other proceedings on his basis for assuming perpetual first-stage growth by non-utility firms, has argued that the Commission's shift to a two-stage methodology for electric utility DCF analysis was industry-specific, such that a single-stage methodology could still be appropriate for non-utility DCF analysis.¹⁴¹⁶ However, in Opinion No. 531-B, the Commission agreed with the Complaint I complainants that long-term GDP growth constrains the long-term earnings growth of individual non-utility companies, just like it constrains the earnings growth of individual utility companies.¹⁴¹⁷ In discussing the interaction of the GDP growth limit with individual firms included in the S&P 500, the Commission found that "an individual company cannot be expected to sustain high short-term grow rates in perpetuity."¹⁴¹⁸ Dr. Woolridge explained that there is no basis to believe (or believe that investors believe) that firms like Verizon are an exception to this finding.¹⁴¹⁹ Verizon, for example, has grown rapidly as cell phones and smart phones gained broad use, but as this market penetration approaches 100%, it has a limit.¹⁴²⁰ Thus, as Opinion No. 531-B finds, the general rule for any individual stock, be it utility or non-utility, is that it "cannot be expected to sustain high short-term growth rates in perpetuity."¹⁴²¹

384. Dr. Woolridge testified that the same mismatched dividend yield calculation that he discussed earlier in connection with Dr. Avera's electric utility DCF studies also distorts Dr. Avera's non-utility DCF studies.¹⁴²² In determining the dividend yield for the first month of the six-month study period, that month's representative stock price should be divided into the annual dividend level that was actually extant during that month, not divided into a higher, later dividend level.¹⁴²³ This distortion contributes materially to the midpoints of Exs. NET-1323 and -1312, because in each case, the highest-result proxy (Hormel and Verizon, respectively) raised its dividend during the six-month DCF study

¹⁴¹⁴ *Id.* at 59.

¹⁴¹⁵ *Id.* (citing Peter D. Easton & Gregory A. Sommers, Effect of Analysts' Optimism on Estimates of the Expected Rate of Return Implied by Earnings Forecasts, 45 J. Acct. Res. 983-1015 (2007)).

¹⁴¹⁶ *Id.* at 61.

¹⁴¹⁷ *Id.*

¹⁴¹⁸ *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 113).

¹⁴¹⁹ *Id.*

¹⁴²⁰ *Id.*

¹⁴²¹ *Id.* at 62.

¹⁴²² *Id.* at 63.

¹⁴²³ *Id.*

period.¹⁴²⁴

385. Dr. Woolridge testified that the few precedents for reference to the midpoint of electric utility DCF results in the context of a region-wide ROE provide no support for disregarding those statistical principles in interpreting a DCF study of non-utility companies. The rationale in those precedents was that with a regional utility proxy group used in setting a regional ROE, the range of electric utility proxy results was presumed to reflect the range of the subject utilities' equity costs.¹⁴²⁵ He explained that rationale cannot apply to the non-utility proxy group, because the extent to which Hormel's cost of equity differs from that of Kellogg says nothing about the range of equity cost dispersion among the NETOs.¹⁴²⁶

386. Dr. Woolridge prepared adjusted versions of Exs. NET-1323 and NET-1312 that address his just-identified DCF implementation flaws in Ex. CAP-36. He presented them solely as rebuttal and does not support reliance on a non-utility DCF model, even with these adjustments.¹⁴²⁷ To address Dr. Avera's proxy selection bias, Dr. Woolridge's exhibits apply the same 0.60 beta criterion that Dr. Avera applied in Complaint I.¹⁴²⁸ For comparison, he also showed the results with Dr. Avera's 0.70 altered criterion.¹⁴²⁹ To address the fallacy of perpetual first-stage growth, his non-utility DCF studies apply a second-stage growth rate with the same 1/3 weighting used in Opinion No. 531. However, because some of Dr. Avera's non-utility proxies have global operations, and in order to be conservatively generous to the NETOs, he found the second-stage growth rate for this purpose by blending the long-term US GDP growth rate with the long-term Gross World Product growth rate based on the OECD forecast.¹⁴³⁰ To address the dividend yield mismatch, his non-utility DCF studies follow the same approach spelled out in Opinion No. 531 at PP 77-78. To address the fourth flaw, his non-utility DCF studies report their median as their finding (while, for comparison only, also showing their midpoint).¹⁴³¹ To the extent any non-utility DCF study is considered, Dr. Woolridge's adjusted versions of such studies indicate an equity cost of 9.54% for the Docket No. EL13-33 and 8.90% for the Docket No. EL14-86.¹⁴³²

387. Dr. Woolridge summarized Dr. Avera's CAPM analyses. Dr. Avera estimated equity cost rates for the two periods by applying various CAPM models to his DCF proxy group. His CAPM approach requires three main inputs: (1) the "Beta" for each modeled

¹⁴²⁴ *Id.* at 63-64.

¹⁴²⁵ *Id.* at 64.

¹⁴²⁶ *Id.*

¹⁴²⁷ *Id.*

¹⁴²⁸ *Id.*

¹⁴²⁹ *Id.*

¹⁴³⁰ *Id.*

¹⁴³¹ *Id.* at 64-65.

¹⁴³² *Id.* at 65.

firm, which measures the extent to which volatility in the overall stock market is matched by volatility in the stock of the modeled firm; (2) an estimate of the risk-free interest rate, and (3) an estimate of the fully-diversified market return.¹⁴³³ He estimated the third input by applying a single-stage DCF methodology to the firms that are currently dividend-paying members of the high-market-value S&P 500 companies.¹⁴³⁴ The difference between the second and third inputs is called the Market Risk Premium (MRP). Dr. Avera calculated CAPM equity cost rates for two different periods and using two different risk-free rates, produced four different CAPM equity cost rates.¹⁴³⁵ In each instance he used a long-term (30-Year) Treasury bond yield as the risk-free rate, but on page 1 of each exhibit he used the actual recent 30-year-bond yield for the respective study period, and on page 2 of each exhibit he used a 30-year-bond yield projected during the respective study period.¹⁴³⁶ For each proxy company, he uses Betas taken from Value Line, which means they are adjusted to be closer to 1.0 than the actual data would indicate, and he adds a size premium based on that proxy's particular market capitalization.¹⁴³⁷ Dr. Avera repeated the four studies of Exs. NET-1306 and NET-1317, but adjusted them so as to dilute the indicated-return-reducing effect of proxy betas that fall below 1.0.¹⁴³⁸ Because the rationale for this beta-diluting adjustment is Dr. Morin's report of empirical studies he performed in 1989 using market data from 1929-1989,¹⁴³⁹ Dr. Avera refers to these four variants as "Empirical CAPM" or "ECAPM" studies.¹⁴⁴⁰ Dr. Avera then reports, as his bottom-line results from each of these eight studies, the midpoint of the resulting size-adjusted proxy-company indicated returns.¹⁴⁴¹ The following table summarizes the eight CAPM variants.

Table 3: NETOs' CAPM Variants

Exhibit No. NET-	Period (EL13- or	Risk-Free Rate	Market Dividend Yield	Market EPS Growth	Market Equity Return	Market Risk Premium	Midpoint Result (w/out "size adj.")	Reported Midpoint Result (w/ "size
1317.1	-33	3.8%	2.3%	10.2%	12.5%	8.7%	10.98%	11.41%
1317.2	-33	4.6%	2.3%	10.2%	12.5%	7.9%	11.12%	11.55%
1321.1	-33	3.8%	2.3%	10.2%	12.5%	8.7%	11.36%	11.79%

¹⁴³³ *Id.*

¹⁴³⁴ *Id.*

¹⁴³⁵ Exs. NET-1306 and NET 1317.

¹⁴³⁶ Ex. CAP-19 at 65.

¹⁴³⁷ *Id.* at 65-66.

¹⁴³⁸ Exs. NET-1310 and NET-1321.

¹⁴³⁹ See Ex. NET-1300 at 43 & n.62.

¹⁴⁴⁰ Ex. CAP-19 at 66.

¹⁴⁴¹ *Id.*

1321.2	-33	4.6%	2.3%	10.2%	12.5%	7.9%	11.46%	11.89%
1306.1	-86	3.1%	2.3%	9.7%	12.0%	8.9%	9.55%	10.26%
1306.2	-86	4.4%	2.3%	9.7%	12.0%	7.6%	9.91%	10.62%
1310.1	-86	3.1%	2.3%	9.7%	12.0%	8.9%	10.16%	10.87%
1310.2	-86	4.4%	2.3%	9.7%	12.0%	7.6%	10.16%	10.87%

388. Dr. Woolridge identified the primary errors that apply to all eight of Dr. Avera's CAPM analyses as their uses of: (1) a market equity return that relies on EPS growth for current dividend-paying members of the S&P 500 continuing forever at the level of recent forecasts for near-term, recovery-period EPS growth, resulting in expected market returns of 12.0% and 12.5% for the two study periods; (2) adjusted Betas for electric utilities in conjunction with that near-term-based market equity return, and (3) a size adjustment.¹⁴⁴² In addition, some of the analyses erroneously used projected rather than actual interest rates.¹⁴⁴³ Dr. Woolridge testified that Dr. Avera's use of a so-called "Empirical" model has no support in the academic literature.¹⁴⁴⁴

389. Dr. Woolridge explained that the primary problem with Dr. Avera's CAPM analyses is the magnitude of the market risk premium, which in turn rests on the market equity return.¹⁴⁴⁵ For both periods, Dr. Avera developed an expected market risk premium by: (1) applying the DCF model to the current dividend-paying members of the S&P 500 to get an expected market return; and (2) subtracting the risk-free rate of interest, which he based on yields for 30-year treasury bonds.¹⁴⁴⁶ Dr. Woolridge explained that these growth rates, when used as permanent growth rates for the overall S&P 500, do not reflect fundamentals or reality.¹⁴⁴⁷

390. Dr. Woolridge testified that for the market-wide equity return in Complaint I, Dr. Avera used Yahoo Finance projections of "5 year" EPS growth as the sole source for his EPS growth forecasts, and derived from them a market-wide EPS growth rate of 10.3%.¹⁴⁴⁸ These forecasts are now significantly lower – in Ex. NET-1306, the parallel figure is 9.4%.¹⁴⁴⁹ If Ex. NET-1306 is adjusted to again use only that same source for that input (with no other adjustment), its midpoint size-adjusted result falls significantly from

¹⁴⁴² *Id.* at 66-67.

¹⁴⁴³ *Id.* at 67.

¹⁴⁴⁴ *Id.* (citing Exs. NET-1310 and 1321).

¹⁴⁴⁵ *Id.*

¹⁴⁴⁶ *Id.*

¹⁴⁴⁷ *Id.*

¹⁴⁴⁸ *Id.*

¹⁴⁴⁹ *Id.* at 67-68.

the 10.62% that Dr. Avera took from that analysis, to 10.05%.¹⁴⁵⁰ Dr. Woolridge testified that Dr. Avera no longer relies exclusively on that source to estimate his market risk premium. He now averages the Yahoo Finance EPSGs with EPSGs taken from Value Line's "Annual Rates" box, which are significantly higher.

391. Dr. Woolridge cited to academic research by Brad Cornwell of the California Institute of Technology, who published a study in 2010 on GDP growth, earnings growth, and equity returns, which found that long-term EPS growth in the U.S. is directly related to GDP growth, with GDP growth providing an upward limit on EPS growth.¹⁴⁵¹ Cornell concluded that long term stock returns depend on growth in corporate earnings, and that earnings growth depends on GDP growth.¹⁴⁵² In his study, Cornell used two measures of corporate earnings: (1) national income and product accounts (NIPAs), produced by the U.S. Department of Commerce's Bureau of Economic Analysis (which are based on corporate tax returns), and (2) the aggregate earnings reported by Standard & Poor's for companies in the S&P 500.¹⁴⁵³

392. In Ex. CAP-38, Dr. Woolridge computed and compared the growth rates in nominal GDP and the S&P 500 EPS since 1960.¹⁴⁵⁴ Whereas Cornell used aggregate earnings for the S&P 500 companies, Dr. Woolridge used EPS, and so his measure includes any growth that may be caused by stock buybacks.¹⁴⁵⁵ Additionally, to get a broader perspective, he also included S&P 500 stock price per share and cash dividends per share.¹⁴⁵⁶ Figure 4 below provides a graph of the results.

Figure 4

Long-Term Growth of GDP, S&P 500, S&P 500 EPS, and S&P 500 DPS

¹⁴⁵⁰ *Id.* at 68.

¹⁴⁵¹ *Id.* 70 (citing Bradford Cornell, "Economic Growth and Equity Investing," *Financial Analysts Journal* (Jan./Feb. 2010), p. 63).

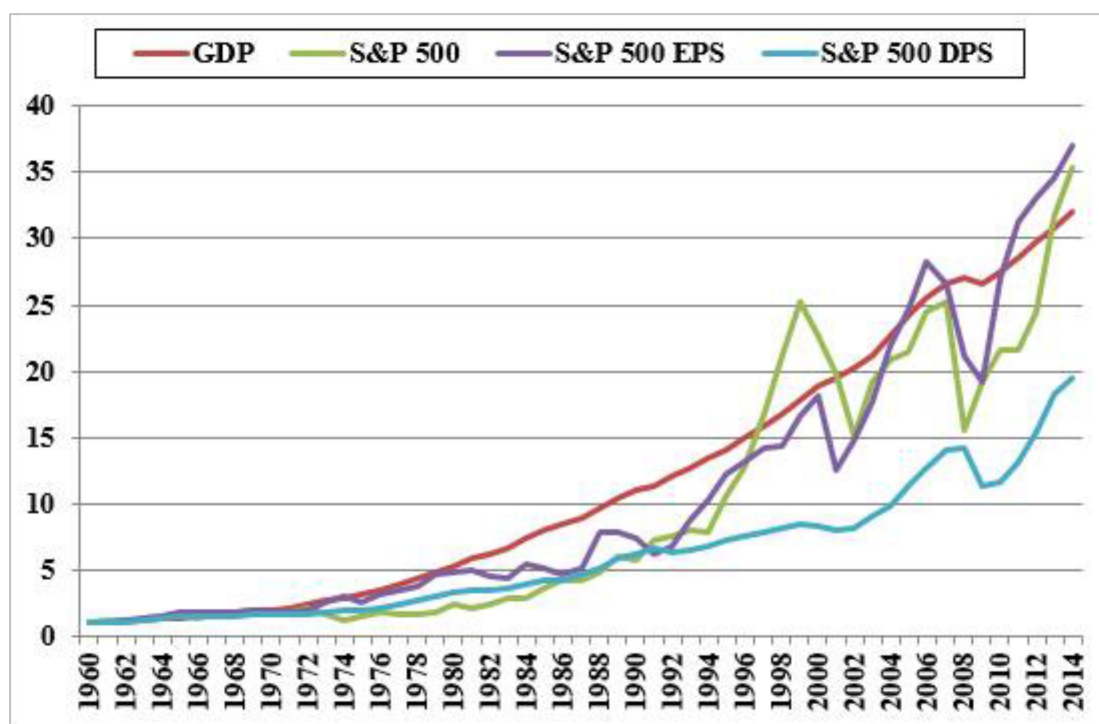
¹⁴⁵² *Id.* at 71.

¹⁴⁵³ *Id.*

¹⁴⁵⁴ *Id.*

¹⁴⁵⁵ *Id.*

¹⁴⁵⁶ *Id.*



The data shows that S&P 500 EPS growth and GDP growth have been generally aligned over the long term, and that for most of the fifty-five years period, EPS growth did not quite keep pace with GDP growth.¹⁴⁵⁷ S&P 500 EPS growth has accelerated above GDP growth for two brief periods, in the late 1990s and during the recovery from the Great Recession. The compounded annual growth rate for S&P 500 EPS is 6.92% versus 6.63% for nominal GDP growth.¹⁴⁵⁸ The data indicate that, as theory would suggest, S&P 500 EPS is pretty closely tied to GDP growth, as over the entire period, S&P 500 EPS grew just slightly faster than nominal GDP.¹⁴⁵⁹

393. Dr. Woolridge believes that investors share the view that GDP growth constrains long-term GDP growth, and he testified that the considered views of Wall Street firms are in line with that belief. He cited a J.P. Morgan Asset Management on-line article¹⁴⁶⁰ that projects a 6.5% return on large-cap U.S. equities, because it expects “[r]evenue growth to remain slightly above trend as output gap closes, but margins to decline from elevated levels,” yielding [d]eclining earnings growth.”¹⁴⁶¹ In a related longer paper, J.P.

¹⁴⁵⁷ *Id.* at 72.

¹⁴⁵⁸ *Id.* at 72.

¹⁴⁵⁹ *Id.* at 72-73.

¹⁴⁶⁰ Anthony Werley and Michael Feser, *Long-Term Capital Market Return Assumptions 2015: Equity*, J.P. Morgan Asset Management (Nov. 27, 2015) <https://am.jpmorgan.com/us/institutional/long-term-capital-market-returnassumptions-2015-equity>; Ex. CAP-22 at 288.

¹⁴⁶¹ Ex. CAP-19 at 73.

Morgan's Asset Management goes on to explain that:¹⁴⁶²

Our common mistake is to assume that earnings and dividends received by investors can grow in line with – or even in excess of – overall economic growth (GDP) in perpetuity. Granted, it is almost a truism that aggregate earnings must grow at the same pace of the overall economy in the very long run; otherwise, profits would eventually outstrip the size of the entire economy or dwindle to an insignificant share of it. But not all of this earnings growth accrues to existing shareholders. On the contrary, a large portion of economic growth comes from the birth of new enterprises. Some commentators suggest (for example, Bernstein and Arnott, 2003; Cornell 2010) that new enterprises account for more than half of GDP growth in the U.S., while in some rapidly developing economies new enterprises may account for the lion's share of overall economic growth.

Dr. Woolridge also noted that J.P. Morgan goes on in this article to project that over the next 10-15 years, the EPS growth rate for U.S. equities will be about 5.8% - higher than it projects for European or Japanese equities, but well below the approximately 10% that Dr. Avera projects will continue forever.¹⁴⁶³

394. Dr. Woolridge testified that nominal GDP growth has slowed considerably in recent decades and he presented the following table which suggests that nominal GDP growth in recent decades has slowed to the 4.0%-5.0% range.¹⁴⁶⁴

Table 5: Historic GDP Growth Rates

10-Year Average	3.6%
20-Year Average	4.4%
30-Year Average	5.0%
40-Year Average	6.2%
50-Year Average	6.7%

The long-term projections of nominal GDP reflect both the slowdown in historic real-dollar economic growth, and the even larger slowdown in nominal-dollar growth with low inflation.¹⁴⁶⁵ The mean 10-year GDP growth forecast (as of February 2015) by

¹⁴⁶² David Sharp, *et al.*, Long-Term Capital Market Assumptions 2015 Estimates and the Thinking Behind the Numbers, J.P. Morgan Asset Management (October 2014), available at <https://am.jpmorgan.com/gi/getdoc/1413613727995>, at 25 (emphasis added).

¹⁴⁶³ Ex. CAP-19 at 74.

¹⁴⁶⁴ *Id.*

¹⁴⁶⁵ *Id.* at 75.

economists in the recent *Survey of Professional Forecasters* is 4.7%.¹⁴⁶⁶ EIA, in its projections used in *Annual Energy Outlook*, forecasts long-term GDP growth of 4.5% for the period 2012-2040.¹⁴⁶⁷ The CBO forecasts a nominal GDP growth rate of 4.8% for the period 2015 to 2025 and the SSA forecasted GDP growth rate is 4.5% for the time period 2014-2090.¹⁴⁶⁸ As Deutsche Bank charted in a figure recently reproduced in a Bloomberg financial news article, projections for a given calendar year's actual GDP growth rates have been trending downwards for many years, and projections for constant-dollars GDP growth during 2017 were recently reduced to little more than 2%.¹⁴⁶⁹

395. Dr. Woolridge explained that the 5.0% equity risk premium that he used aligned with not only his full set of several dozen sources, but also with the subset of those sources that consisted of recent *ex ante* forecasts.¹⁴⁷⁰ Duff & Phelps uses a 4% normalized risk-free rate and a 5% equity risk premium, and thus a 9% CAPM Equity Market Return.¹⁴⁷¹ Because those figure are in line with his other sources and his expert judgment, those happen to be the same 4% risk-free rate, 5% equity risk premium, and 9% Equity Market Return that he used as his own overall CAPM framework.¹⁴⁷² In his cross-answering testimony, Dr. Avera discusses Duff & Phelps data and the related Duff & Phelps CAPM at length, but Dr. Woolridge feels that his use of the Duff & Phelps CAPM was only to cherry-pick the “normalized” 4.0% risk-free rate that it substitutes for somewhat lower current yields on long-term Treasury bonds.¹⁴⁷³ When asked on deposition to explain the divergence between his 12%-12.5% CAPM Equity Market Return and Duff & Phelps’ 9.0%, Dr. Avera speculated that Duff & Phelps might have subsequently changed its 9.0% Equity Market Return.¹⁴⁷⁴ However, Dr. Woolridge testified that Duff & Phelps has not done so, and it continues to state on its website that the study he provides as Ex. CAP-40 is the current Duff & Phelps CAPM model.¹⁴⁷⁵

396. Dr. Woolridge testified that three factors explain the difference between his 5.0% market risk premium and the significantly higher 7.6% to 8.9% numbers that Dr. Avera used. First, Dr. Avera’s market risk premiums are partly historical, and they therefore capture past expectations of strong earnings growth during 2011-2013 that are now already embedded in dividend payment levels and in share counts reduced through buybacks.¹⁴⁷⁶ Second, Dr. Woolridge’s market risk premium is based on a long-term

¹⁴⁶⁶ *Id.*

¹⁴⁶⁷ *Id.*

¹⁴⁶⁸ *Id.*

¹⁴⁶⁹ *Id.* (citing Ex. CAP-39).

¹⁴⁷⁰ *Id.* at 75-76.

¹⁴⁷¹ *Id.* at 76.

¹⁴⁷² *Id.* (citing Exs. CAP-1 at 42 and CAP-7 at 1).

¹⁴⁷³ *Id.*

¹⁴⁷⁴ *Id.* (citing Ex. CAP-20 and Tr. 85-91).

¹⁴⁷⁵ *Id.* at 76-77.

¹⁴⁷⁶ *Id.* at 77.

return horizon that better matches the 30-year term of the debt instrument (30-year Treasury bonds) that both he and Dr. Avera used for the risk-free rate, and therefore reflects expectations that in the long run EPS growth will not exceed GDP growth, whereas Dr. Avera simply extrapolates near-term analyst forecasts.¹⁴⁷⁷ Third, those near-term analyst forecasts are overly optimistic and upwardly biased.¹⁴⁷⁸

397. Dr. Woolridge cited to several academic studies that prove and demonstrate this upward bias of analyst forecasts. Harris (1999) evaluated the accuracy of analysts' long-term EPS forecasts over the 1982-1997 time period using a sample of 7,002 firm-year observations.¹⁴⁷⁹ He concluded that: (1) the accuracy of analysts' long-term EPS forecasts is very low; (2) a superior long-run method to forecast long-term EPS growth is to assume that all companies will have an earnings growth rate equal to historic GDP growth; and (3) analysts' long-term EPS forecasts are significantly upwardly biased, with forecasted earnings growth exceeding actual earnings growth by seven percent per annum.¹⁴⁸⁰ Subsequent studies by DeChow, P., A. Huttan, and R. Sloan (2000), and Chan, Karceski, and Lakonishok (2003) also conclude that analysts' long-term EPS growth rate forecasts are overly optimistic and upwardly biased.¹⁴⁸¹ The Chan, Karceski, and Lakonishok (2003) study evaluated the accuracy of analysts' long-term EPS growth rate forecasts over the 1982-1998 time period.¹⁴⁸² They reported a median IBES growth forecast of 14.5%, versus a median realized five-year growth rate of about 9%.¹⁴⁸³ They also found the IBES forecasts of EPS beyond two years are not accurate. They concluded the following: "Over long horizons, however, there is little forecastability in earnings and analysts' estimates tend to be overly optimistic."¹⁴⁸⁴

398. Dr. Woolridge testified that the upward bias in analysts' long-term EPS growth rate forecasts is also well known in the markets and presented a graph summarizing a *Bloomberg Businessweek* article that highlighted this upward bias.¹⁴⁸⁵

¹⁴⁷⁷ *Id.*

¹⁴⁷⁸ *Id.*

¹⁴⁷⁹ *Id.* (citing R.D. Harris, "The Accuracy, Bias, and Efficiency of Analysts' Long Run Earnings Growth Forecasts," *Journal of Business and Finance & Accounting*, pp. 725-55 (June/July 1999)).

¹⁴⁸⁰ *Id.*

¹⁴⁸¹ *Id.* at 77-78 (citing P. DeChow, A. Hutton, and R. Sloan, "The Relation Between Analysts' Forecasts of Long-Term Earnings Growth and Stock Price Performance Following Equity Offerings," *Contemporary Accounting Research* (2000) and K. Chan, L., Karceski, J., & Lakonishok, J., "The Level and Persistence of Growth Rates," *Journal of Finance* pp. 643-684, (2003)).

¹⁴⁸² *Id.* at 78.

¹⁴⁸³ *Id.*

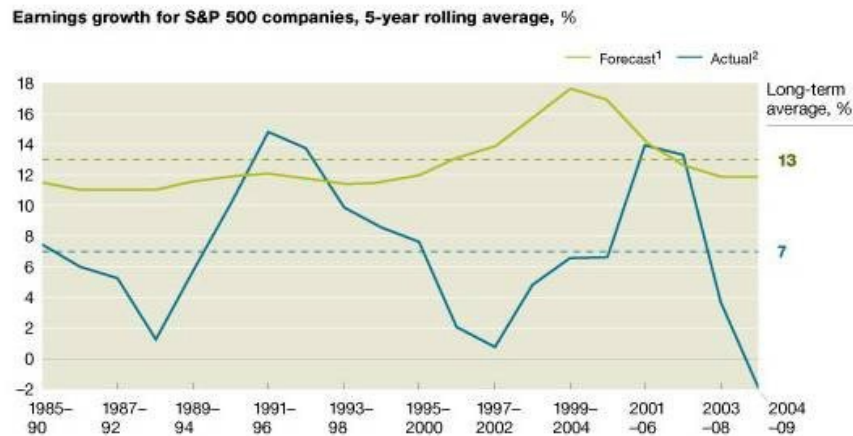
¹⁴⁸⁴ *Id.*

¹⁴⁸⁵ *Id.* (citing Roben Farzad, "For analysts, Things are Always Looking Up,"

[This space is intentionally left blank]

Figure 5: S&P 500 Analysts Projected v. Actual Growth Rates
A generation of overoptimistic equity analysts

McKinsey research shows that equity analysts have been overoptimistic for the past quarter century: on average, their earnings-growth estimates—ranging from 10 to 12 percent annually, compared with actual growth of 6 percent—were almost 100 percent too high. Only in years of strong growth, such as 2003 to 2006, when actual earnings caught up with earlier predictions, do these forecasts hit the mark.



The *BusinessWeek* article concluded with: “**The bottom line:** Despite reforms intended to improve Wall Street research, stock analysts seem to be promoting an overly rosy view of profit prospects.”¹⁴⁸⁶

399. Dr. Woolridge testified that investors do not expect that over the long term, S&P 500 stocks will yield returns resembling the 12.5% and 12.0% returns that Dr. Avera presented as representative of S&P 500 returns.¹⁴⁸⁷ He cited an article dated April 24, 2015 by Charles Schwab Investment Advisory which estimated the longer-term (defined as 10 years or more) return on S&P 500 stocks at 6.3% to support his conclusion.¹⁴⁸⁸ Schwab explains:

“These estimates are significantly below the historical annual compound returns on large-cap stocks and bonds of 10.5% and 7.9%, respectively, during the 1970-

Bloomberg Businessweek (June 14, 2010), pp. 39-40).

¹⁴⁸⁶ *Id.* at 79.

¹⁴⁸⁷ *Id.* at 80.

¹⁴⁸⁸ *Id.* (citing Michael E. Lind, *Q & A: Estimating Long-Term Market Returns*, Charles Schwab (April 24, 2015) <http://www.schwab.com/public/schwab/nn/articles/Q-and-A-Estimating-Long-Term-Market-Returns>, Ex. No. CAP-22 at 246).

2014 time period. Of course, these are estimates of average returns – in any given year, stocks and bonds may return far more or less and may even be negative.

Why are the estimates below historical averages? There are two reasons:

- Our estimate of long-run inflation is 1.8%, just shy of two percentage points below the actual inflation rate during the 1970-2014 time period of 4.2%.
- Current and expected interest rates are much lower than what has transpired historically, especially compared to the high-interest-rate environment of the 1980s.”

Dr. Woolridge noted that Dr. Avera’s estimate of S&P 500 returns is almost double that of this major investment advisor.¹⁴⁸⁹ He explained that investment banks, consulting firms, and CFOs use the MRP concept every day in making financing, investment, and valuation decisions. On this issue, he feels the opinions of CFOs and financial forecasters to be especially relevant because CFOs deal with capital markets on an ongoing basis since they must continually assess and evaluate capital costs for their companies and they are well aware of the historical stock and bond return studies of Ibbotson.¹⁴⁹⁰ The CFOs in the March 2015 *CFO Magazine* – Duke University Survey of over 500 CFOs shows an expected return of the S&P 500 of 7.40% over the next ten years.¹⁴⁹¹ In addition, the financial forecasters in the February 2015 Federal Reserve Bank of Philadelphia survey expect an annual market return of 5.79% over the next ten years.¹⁴⁹² As such, Dr. Woolridge concludes, with a more realistic equity or market risk premium, the appropriate equity cost rate for a public utility should be in the 8.0% to 9.0% range and not in the 10.0% to 11.0% range.¹⁴⁹³

400. Dr. Woolridge testified that the Australian Energy Regulator (“AustraliaER”), which sets rates for Australia’s privately-owned and publicly owned electric utilities, recently conducted a rulemaking-like procedure to reconsider its allowed return methodology.¹⁴⁹⁴ The resulting guidance was published in December 2013,¹⁴⁹⁵ and has since resulted in a benchmark allowed ROE of 8.1%¹⁴⁹⁶ that is being applied to

¹⁴⁸⁹ *Id.*

¹⁴⁹⁰ *Id.*

¹⁴⁹¹ *Id.*

¹⁴⁹² *Id.*

¹⁴⁹³ *Id.* at 80-81.

¹⁴⁹⁴ *Id.* at 81.

¹⁴⁹⁵ Australian Energy Regulator, Better Regulation: Explanatory Statement Rate of Return Guideline (Appendixes) (December 2013), *available at* http://www.aer.gov.au/sites/default/files/AER%20Explanatory%20statement%20-%20appendices%20-%20rate%20of%20return%20guideline%20-%20December%202013_0.pdf, Ex. No. CAP-22 at 244.

¹⁴⁹⁶ *Id.*

Australian grid owners prospectively, as they undergo new rate reviews.¹⁴⁹⁷

401. Dr. Woolridge explained that AustraliaER has decided to adopt a CAPM as its primary mechanism for setting allowed ROEs.¹⁴⁹⁸ AustraliaER's version of this model resembles Exhibits CAP-44 and CAP-45, and explicitly adopts an adjustment that resembles (but is more ROE-reducing than) Dr. Woolridge's principal adjustment of NETOs' CAPM studies.¹⁴⁹⁹ AustraliaER calculates the portfolio-wide equity market return by performing a multi-stage DCF study of all 200 firms in the S&P/ASK 200 index (Australia's parallel to the S&P 500), using Bloomberg forecasts of near-term dividends and a terminal-stage long-term growth rate that is set at 100 basis points below the expected long-term growth rate of Australian GDP.¹⁵⁰⁰ This terminal growth rate is applied as the market-wide dividend growth rate from year 10 forward, and during the years leading up to year 10 it is blended linearly with Bloomberg's company-specific dividend forecasts.¹⁵⁰¹ Consequently, the GDP-based limit on company-specific growth receives a stronger weighting in Australia than it does in either the Opinion No. 531 DCF model or Dr. Woolridge's adjustment of NETOs' S&P 500 DCF studies.¹⁵⁰²

402. Dr. Woolridge explained that the GDP-based terminal growth rate that Australia uses in its CAPM is a forecast long-term rate of growth in real Australian GDP of (currently) 3.0%, plus forecast inflation (of Australian dollars, A\$) of 2.5%, for a terminal rate in nominal A\$ of 5.5%.¹⁵⁰³ However, AustraliaER forecasts that dividends paid on shares currently held will grow more slowly than GDP, because new enterprises and share issuances will dilute dividend growth.¹⁵⁰⁴ Accordingly, AustraliaER applies a terminal growth rate in A\$ of 4.6%, which, if stated in U.S. Dollars, would be lower, because the U.S. Fed targets a lower inflation rate than does the Australian central bank and the expected U.S. Dollar long-term inflation rate is correspondingly lower.¹⁵⁰⁵ In the long-term EIA data on which both Dr. Avera and Dr. Woolridge rely, it is 1.8%, and accordingly, the corresponding U.S. terminal growth rate would be 4.6%-(2.5%-1.8%)=3.9%.¹⁵⁰⁶

403. Dr. Woolridge explained that AustraliaER, in its CAPM, for its risk-free rate, uses

¹⁴⁹⁷ Ex. CAP-19 at 81.

¹⁴⁹⁸ *Id.* at 82.

¹⁴⁹⁹ *Id.*

¹⁵⁰⁰ *Id.* (citing Australian Energy Regulator, Better Regulation: Explanatory Statement Rate of Return Guideline (Appendixes) (December 2013), Ex. No. CAP-22 at 244).

¹⁵⁰¹ *Id.*

¹⁵⁰² *Id.*

¹⁵⁰³ *Id.* at 83.

¹⁵⁰⁴ *Id.*

¹⁵⁰⁵ *Id.*

¹⁵⁰⁶ *Id.*

the most recent month's average yield on 10-year Australian government bonds, i.e., the Australian analogue to yields on 10-year treasuries.¹⁵⁰⁷ This index is currently about 2.5% and it was 3.55% at the time of the November 2014 determinations.¹⁵⁰⁸ For its beta, AustraliaER considers a range of 0.4 to 0.7, and for the November 2014 determinations it used 0.7.¹⁵⁰⁹ For its portfolio-wide market return, AustraliaER applies a multi-stage DCF to the portfolio firms.¹⁵¹⁰ As of November 2014, that analysis indicated a portfolio-wide market return on equity of 9.05% (down from 10.9% as of 2013), and was applied with a risk-free rate of 2.55% and a market risk premium of 6.5%.¹⁵¹¹

404. Dr. Woolridge testified that once the portfolio-wide market return is estimated, the CAPM methodology for deriving a cost of equity estimate from that market return is straightforward:

$$\text{Equity cost} = \text{risk free rate} + (\text{Beta} * [\text{Market return} - \text{risk free rate}])$$

In Australia's recent application of its CAPM,

$$\text{Equity cost} = 3.55\% + (0.7 * 6.55\%) = 8.1\%.$$

405. Dr. Woolridge testified that the global capital markets responded sanguinely to AustraliaER's 8.1% grid transmission ROE benchmark and that this provides a real-world test of the NETOs' contentions that investors will not accept the returns indicated by a straightforward application of cost-of-equity metrics.¹⁵¹²

406. From this Australian evidence, Dr. Woolridge concluded that if a CAPM is used to estimate NETOs' cost of equity and the market-wide return for that CAPM is inferred from a DCF study of hundreds of stocks, that DCF study should include a terminal growth stage tied to GDP.¹⁵¹³ Additionally, a terminal growth rate of 4.39% is conservatively high and, given current conditions in the global financial market, investors would take in stride a cost-based allowed ROE as low as 8.1%.¹⁵¹⁴

407. Dr. Woolridge testified that Opinion No. 531-B addressed whether to apply a GDP-based second stage to the portfolio-wide GDP used in finding the market risk premium for a CAPM study, but in doing so, the Commission did not resolve whether to apply a GDP-based growth constraint to studies that, like those which Dr. Avera is utilizing within his CAPM here, apply a DCF model to project the long-term return on

¹⁵⁰⁷ *Id.*

¹⁵⁰⁸ *Id.*

¹⁵⁰⁹ *Id.*

¹⁵¹⁰ *Id.*

¹⁵¹¹ *Id.*

¹⁵¹² *Id.* at 84.

¹⁵¹³ *Id.*

¹⁵¹⁴ *Id.*

400-plus specific firms.¹⁵¹⁵ He identified the relevant passage as Paragraph 113 of Opinion No. 531-B, which states (with emphasis added):¹⁵¹⁶

Under the CAPM model, the market risk premium is based on the difference between the “required return on the overall market” and the risk-free rate. The required return on the overall market is determined by conducting a DCF study of “a representative market index, such as the Standard & Poor’s 500 Index.” ... The rationale for incorporating a long-term growth rate estimate in conducting a two-step DCF analysis of a specific group of utilities does not necessarily apply when conducting a DCF study of the companies in the S&P 500. That is because the S&P 500 is regularly updated to include only companies with high market capitalization. While *an individual company cannot be expected to sustain high short-term growth rates in perpetuity*, the same cannot be said for a stock index like the S&P 500 that is regularly updated to contain only companies with high market capitalization, and *the record in this proceeding* does not indicate that the growth rate of the S&P 500 stock index is unsustainable.

408. According to Dr. Woolridge, there are two reasons why P 113 of Opinion No. 531-B doesn’t resolve the question of whether to apply a GDP-based second stage in the present context. First, the passage is expressly a case-specific factual finding based on the Complaint I record, which was compiled before the Commission adopted a two-stage DCF model for electric utilities and therefore did not focus on this issue.¹⁵¹⁷ Second, the factual finding in this passage – its observation that although “an *individual company* cannot be expected to sustain high short-term growth rates in perpetuity,” an *index* may do so because only firms that retain high market value stay in the index – doesn’t speak to whether Dr. Avera’s earnings growth rates are sustainable.¹⁵¹⁸ Exhibits NET-1306 and NET-1317 don’t use projections of S&P *index* growth to derive a DCF discount rate.¹⁵¹⁹ If they had, the 6.3% Charles Schwab estimate Dr. Woolridge discussed earlier suggests a much lower discount rate.¹⁵²⁰ Instead, they rely on an aggregated DCF analysis on 400-plus specific firms.¹⁵²¹ If Opinion No. 531-B is correct (Dr. Woolridge thinks that it is) in finding that each individual S&P 500 company cannot be expected to sustain in perpetuity its near-term analyst-forecasted EPSG, then the same observation applies to those 400-plus specific firms in the aggregate.¹⁵²² The growth of a portfolio with holdings

¹⁵¹⁵ *Id.* at 85.

¹⁵¹⁶ *Id.*

¹⁵¹⁷ *Id.*

¹⁵¹⁸ *Id.*

¹⁵¹⁹ *Id.*

¹⁵²⁰ *Id.* at 85-86.

¹⁵²¹ *Id.* at 86.

¹⁵²² *Id.*

selected *ex ante* cannot exceed the growth of its component holdings.¹⁵²³ Dr. Woolridge explained that this finding applies even more strongly to a portfolio of 400-plus specific large-cap firms than it does to any one of those firms, because many of those firms compete with each other, such that the earnings growth of one portfolio firm is likely to come partly at the expense of other portfolio firms.¹⁵²⁴

409. Dr. Woolridge recalculated Dr. Avera's S&P 500 equity market return as a two-stage rather than one-stage DCF for the Complaint III period using: (1) FERC's 2/3 – 1/3 weighting given to near-term EPSGs and long-term GDP growth; (2) Dr. Avera's 10.2% IBES EPSG for the S&P 500; and (3) a long-term GDP growth rate of 4.52%.¹⁵²⁵ He used the IBES EPSG because of the previously-discussed three-year historic baseline period issue with Value Line's EPSG figures. For the GDP growth rate, he used a projected global GDP growth rate since the S&P 500 firms receive about 25% of their revenues from outside the U.S. The OECD report cited in CAP-1 page 3 projects global economic growth (real\$) of 3.7% through 2017, 3.6% for 2018-20130, and 2.2% for 2031-2060. Combining that growth stream with the long-term EIA inflation rate of 1.8% indicates a global GDP growth rate of 4.5%. Obviously, this global GDP projection is not much different from the Commission's 4.39% projection of long-term expected growth in U.S. GDP. The combination of the S&P 500 EPSGs and the 4.52% GDP growth provides a composite growth rate of 8.3%.¹⁵²⁶

410. Dr. Woolridge made several points about this composite growth rate of 8.3%. First, the 2/3 – 1/3 weighting scheme, by giving double weight to the much higher near-term growth rate figure, implicitly assumes that the near-term growth rate persists for much more than five years, well past the present business cycle.¹⁵²⁷ Second, the 8.3% composite growth exceeds the long-term historic EPS growth rate of 6.92% by more than 100 bp.¹⁵²⁸ Therefore, the S&P 500 growth rate data suggests that a composite growth rate of 8.3% is on the high side of prospective growth.¹⁵²⁹ The recalculation of Dr. Avera's CAPM results using the two-stage DCF model for the S&P 500 is provided in Ex. CAP-42. The CAPM ICOES results range from 7.23% to 9.68%, with a midpoint, mean, and median of 8.54%, 8.68%, and 8.73%. Dr. Woolridge believes these to be much more realistic CAPM results that support his equity cost rate recommendation in this proceeding.

411. Dr. Woolridge testified that the S&P 500 Index is updated on a regular basis with companies having high market valuations. This means that it is, by definition, composed

¹⁵²³ *Id.*

¹⁵²⁴ *Id.*

¹⁵²⁵ *Id.* at 88.

¹⁵²⁶ *Id.*

¹⁵²⁷ *Id.* at 88-89.

¹⁵²⁸ *Id.* at 89.

¹⁵²⁹ *Id.*

of stock market winners. However, this does not lead to superior actual long-term earnings growth and performance for the index. A recent study found that both added and deleted stocks outperformed the overall market, but, as somewhat of a surprise, the average abnormal returns were higher for deleted stocks than for added stocks.¹⁵³⁰ The study explained this by suggesting that firms are added to their index during their peak performance stage, which cannot be sustained in the long run, and firms are deleted during their worst performance stage but tend to recover somewhat in the long term.¹⁵³¹ Dr. Woolridge posited that, if the efficient market theory is correct, investors will take account of this experience and will not expect the performance of the index itself to sustainably outpace the performance of the stocks represented in the index at any particular point in time.¹⁵³²

412. Dr. Woolridge cited Value Line to provide an explanation of adjusted Betas.¹⁵³³ He also cited a recent article by Michelfelder and Theodossiou investigated the issue as to whether adjusted Betas are appropriate for utilities.¹⁵³⁴ Conceptually, they suggested that utilities are different from unregulated companies in several areas which may result in Betas not regressing toward 1.0:

Being natural monopolies in their own geographic areas, public utilities have more influence on the prices of their product (gas and electricity) than other firms. The rate setting process provides public utilities with the opportunity to adjust prices of gas and electricity to recover the rising costs of fuel and other materials used in the transmission and distribution of electricity and gas.

The authors concluded that utility Betas converge to 0.59 instead as opposed to 1.0.¹⁵³⁵

413. If utility Betas do not converge to 1.0, Dr. Woolridge explained that using adjusted Betas such as those from Value Line will result in an inflated expected return using the

¹⁵³⁰ *Id.* at 90 (citing Kalok Chan, Hung Wan Kot, Gordon Y.N. Tang, “A Comprehensive Long-Term Analysis of S&P 500 Index Additions and Deletions,” *Journal of Banking and Finance*, December 2013, pp. 4920-4930).

¹⁵³¹ *Id.* at 91.

¹⁵³² *Id.*

¹⁵³³ Ex. CAP-22 at 3, Andrew J. Cueter, Using Beta, Value Line (October 02, 2012), http://www.valueline.com/Tools/Educational_Articles/Stocks/Using_Beta.aspx#.VVS7n7dFDct; *Id.* at 1, Glossary of Terms, Value Line, <http://www.valueline.com/Glossary/GlossaryDisplay.aspx?taxonomyid=4294967299> (last accessed May 14, 2015 11:25 AM).

¹⁵³⁴ Ex. CAP-19 at 93 (citing Ex. CAP-22 at 333, Richard A. Michelfelder and Panayiotis Theodossiou, “Public Utility Beta Adjustment and Biased Costs of Capital in Public Utility Rate Proceedings,” *The Electricity Journal*, November, 2013).

¹⁵³⁵ Ex. CAP-19 at 94.

CAPM for electric utilities.¹⁵³⁶ Dr. Avera's CAPM equity cost rate declines significantly when using unadjusted Betas (8.55%) than when using adjusted Betas (9.72%).¹⁵³⁷ The use of adjusted betas therefore has a very significant impact on Dr. Avera's CAPM equity cost rates.

414. Dr. Woolridge recomputed Dr. Avera's CAPM results using unadjusted Betas. For Complaint III, the average Yahoo and Google's unadjusted Betas are 0.46 and 0.37 for the proxy companies, compared to Value Line's average adjusted Beta of 0.74.¹⁵³⁸ Due to the low unadjusted Betas, which produced low CAPM ICOEs, Dr. Woolridge employed the DCF low-end filter to remove very low equity cost rate estimates. This eliminated nine ICOEs using historical bond yields and five using projected bond yields. For the CAPM results using historical bond yields, the range is from 6.26% to 12.98%, with a mean, median, and midpoint of 7.71%, 7.06%, and 9.62%.¹⁵³⁹ The 75th percentile is 8.22%.¹⁵⁴⁰ The high end of the range is driven by one observation: Otter Tail has an average unadjusted Beta of 0.98.¹⁵⁴¹ This high Beta reflects Otter Tail's financial problems in the past, associated with the impact of the Great Recession on its construction and other non-utility businesses.¹⁵⁴² Page 2 shows Dr. Avera's CAPM results using projected bond yields. The range of the CAPM ICOEs is from 5.88% to 12.84%, with a mean, median, and midpoint of 7.99%, 7.40%, and 8.60%.¹⁵⁴³ Pages 1 and 2 of Exhibit CAP-45 show the adjusted CAPM results (using historical and projected bond yields, respectively) for the Docket No. EL13-33 period. The CAPM results using historical bond yields range from 7.31% to 13.15%, with a mean, median, and midpoint of 9.42%, 9.25%, and 10.23%.¹⁵⁴⁴ The 75th percentile is 9.90%.¹⁵⁴⁵ Page 2 of the exhibit shows Dr. Avera's CAPM results using projected bond yields for the Docket No. EL13-33 period. The range of CAPM ICOEs is from 7.78% to 13.09%, with a mean, median, 75th percentile, and midpoint of 9.70%, 9.55%, 10.1%, and 10.44%.¹⁵⁴⁶ Dr. Woolridge explained that these results are higher primarily because of the projected risk-free rate of 4.60%, but that nonetheless, the summary financial metrics again demonstrate the large impact of using adjusted Betas for utilities in the CAPM.

415. Dr. Woolridge testified that Dr. Avera adjusted his CAPM equity cost rates by amounts ranging from -0.33% to 1.75% based on the market capitalization of the proxy

¹⁵³⁶ *Id.*

¹⁵³⁷ *Id.*

¹⁵³⁸ *Id.* at 96 (citing Ex. CAP-44).

¹⁵³⁹ *Id.*

¹⁵⁴⁰ *Id.*

¹⁵⁴¹ *Id.*

¹⁵⁴² *Id.* at 96-97.

¹⁵⁴³ *Id.* at 97.

¹⁵⁴⁴ *Id.*

¹⁵⁴⁵ *Id.*

¹⁵⁴⁶ *Id.*

utility. The vast majority of the adjustments are upward, because most of the proxy utilities (which were chosen without direct regard for size) are smaller than the S&P 500, large-cap stocks that were used to generate the Market Risk Premium.¹⁵⁴⁷

416. Dr. Woolridge explained that in Opinion No. 531-B, at P 117, the Commission stated that it was “not persuaded that it was inappropriate to use a size adjustment in this case,” while leaving the issue open to renewed consideration here.¹⁵⁴⁸ The Commission found a lack of information in the Complaint I record as to “how the growth rates of the dividend-paying members of the S&P 500 compare to the NETOs or to other groups of companies with smaller market capitalization.”¹⁵⁴⁹ However, Dr. Woolridge shows that the smaller (utility) sets of companies are the ones with lower expected growth, which undercuts Dr. Avera’s application of a size adjustment.¹⁵⁵⁰

417. Dr. Woolridge identified several problems with Dr. Avera’s use of a size adjustment that were not addressed in Opinion No. 531-B. First, the Commission focused on the concept that the CAPM is an expectational model, but the size adjustment contradicts this idea because the adjustment is based on the historical stock market returns for different size firms where companies are grouped into deciles based on their market capitalization.¹⁵⁵¹ Since the Commission has rejected the use of historical returns for computing a market risk premium, Dr. Woolridge feels it should reject the use of the same historical returns (from the same sources) for computing a size adjustment.

418. Dr. Woolridge explained that computing market risk premiums via historical market returns, including the historical relationship between returns and size, results in statistical errors that lead to inflated estimates of the expected market risk premium. Among the errors are survivorship bias (only successful companies survive – poor companies do not) and unattainable return bias (the Morningstar procedure presumes monthly portfolio rebalancing).¹⁵⁵² With respect to the small firm premium, Richard Roll (1983) found that one-half of the historic return premium for small companies disappears once biases are eliminated and historic returns are properly commuted.¹⁵⁵³ The error arises from the assumption of a monthly portfolio rebalancing and the serial correlation in historic small firm returns.¹⁵⁵⁴ In a more recent paper, Ching-Chih Lu (2009) estimated the size premium over the long-run.¹⁵⁵⁵ Lu acknowledges that many studies have

¹⁵⁴⁷ *Id.* at 98.

¹⁵⁴⁸ *Id.* at 98-99.

¹⁵⁴⁹ *Id.* at 99.

¹⁵⁵⁰ *Id.* (citing Ex. CAP-46).

¹⁵⁵¹ *Id.* at 100.

¹⁵⁵² *Id.*

¹⁵⁵³ *Id.* (see Richard Roll, “On Computing Mean Returns and the Small Firm Premium,” *Journal of Financial Economics*, pp. 371-86 (1983)).

¹⁵⁵⁴ *Id.*

¹⁵⁵⁵ Ex. CAP-19 at 100 (see Ching-Chih Lu, “The Size Premium in the Long Run,”

demonstrated that smaller companies have historically earned higher stock market returns. However, he highlights that these studies rebalance the size portfolios on an annual basis.¹⁵⁵⁶ This means that at the end of each year the stocks are sorted based on size, split into deciles, and the returns are computed over the next year for each stock decile.¹⁵⁵⁷ This annual rebalancing creates a problem. Using a size premium in estimating a CAPM equity cost rate requires that a firm carry the extra size premium in its discount factor for an extended period of time, not just for one year, which is the presumption with annual rebalancing.¹⁵⁵⁸ Through an analysis of small firm stock returns for longer time periods (and without annual rebalancing), Lu finds that the size premium disappears within two years.¹⁵⁵⁹ Lu concludes that a small firm should not be expected to have a higher size premium going forward merely because it is small now.¹⁵⁶⁰

419. Dr. Woolridge also cited Professor Annie Wong, who has tested for a size premium in utilities and concluded that, unlike industrial stocks, utility stocks do not exhibit a significant size premium. That is because utilities are regulated closely by state and federal agencies and commissions, and hence, their financial performance is closely monitored on an ongoing basis by both state and federal governments.¹⁵⁶¹ In addition, public utilities must gain approval from government entities for common financial transactions such as the sale of securities.¹⁵⁶² Furthermore, unlike their industrial counterparts, accounting standards and reporting are fairly standardized for public utilities.¹⁵⁶³ Finally, a utility's earnings are predetermined to a certain degree through the ratemaking process in which performance is reviewed by state commissions and other interested parties.¹⁵⁶⁴ Overall, in terms of regulation, government oversight, performance review, accounting standards, and information disclosure, utilities are much different than industrials, which could account for the lack of a size premium.¹⁵⁶⁵

420. Dr. Woolridge testified that Dr. Avera's "ECAPM" variants of his CAPM studies use imputed returns for each proxy that are set half on the basis of the actually observed beta, and half on the basis of the Market Risk Premium multiplied by unity.¹⁵⁶⁶ This dilution of betas' downward effect on the implied utility cost of equity has no support in

2009 Working Paper, SSRN abstract no. 136705).

¹⁵⁵⁶ *Id.*

¹⁵⁵⁷ *Id.*

¹⁵⁵⁸ *Id.*

¹⁵⁵⁹ Ex. CAP-19 at 101 (see Ching-Chih Lu, *supra*).

¹⁵⁶⁰ *Id.*

¹⁵⁶¹ Ex. CAP-19 at 101 (citing Annie Wong, "Utility Stocks and the Size Effect: An Empirical Analysis," *Journal of the Midwest Finance Association*, pp. 95-101).

¹⁵⁶² *Id.*

¹⁵⁶³ *Id.*

¹⁵⁶⁴ *Id.*

¹⁵⁶⁵ Ex. CAP-19 at 101.

¹⁵⁶⁶ *Id.* at 104.

the peer-reviewed academic literature.¹⁵⁶⁷ As his basis for this further dilution of betas' effect, and thus of the ROE reduction indicated by the fact that almost all utility betas fall below unity, Dr. Avera relies on Dr. Morin's New Regulatory Finance at 190.¹⁵⁶⁸ In turn, Dr. Morin's derivation of his ECAPM formula relies entirely on a study performed by Dr. Morin himself, in 1989, using data from 1929-1985 and using Dr. Morin's assumptions as to "reasonable values of the market risk premium and the risk-free rate."¹⁵⁶⁹ Thus, the ECAPM model rests entirely on a non-peer-reviewed study of pre-1985 data using assumptions as to what risk-free rate and market risk premiums are "reasonable," and moves the modeled results further from the proxies' actually observed betas.¹⁵⁷⁰

421. Dr. Woolridge identified three variations of risk premium studies in Dr. Avera's prefiled testimony. First, they vary by industry and jurisdiction. That is, for some of the studies the data points are allowed ROEs attributed to FERC proceedings concerning electric utilities; for others the data points are allowed ROEs attributed to FERC proceedings concerning gas pipelines; and for others the data points are allowed ROEs attributed to state commission proceedings concerning either electric or gas utilities. Second, they vary by the type of bond yield to which the "risk premium" inferred from these attributed case outcome data points is compared.¹⁵⁷¹ That is, for some of these studies the inferred risk premium is compared to actual recent bond yields, whereas for others, the inferred risk premium is compared to projected future bond yields. Third, depending on the docket and testimony round for which they are submitted, they vary by time frame.¹⁵⁷²

Table 7: NETO Risk Premium Variants

Exhibit	Industry/	Bond Yield Type	End Date
NET-1305.1	Electric, FERC	Actual Recent	Oct. 2014
NET-1305.2	Electric, FERC	Projected	Oct. 2014
NET-1309.1	Elec. & Gas, States	Actual Recent	Dec. 2013
NET-1309.2	Elec. & Gas, States	Projected	Dec. 2013
NET-1311.1	Gas, FERC	Actual Recent	Dec. 2014

¹⁵⁶⁷ *Id.*

¹⁵⁶⁸ *Id.*

¹⁵⁶⁹ *Id.*

¹⁵⁷⁰ *Id.*

¹⁵⁷¹ *Id.* at 105.

¹⁵⁷² *Id.* at 105.

NET-1311.2	Gas, FERC	Projected	Dec. 2014
NET-1316.1	Electric, FERC	Actual Recent	Nov. 2013
NET-1316.2	Electric, FERC	Projected	Nov. 2013
NET-1320.1	Elec. & Gas, States	Actual Recent	Dec. 2013
NET-1320.2	Elec. & Gas, States	Projected	Dec. 2013
NET-1322.1	Gas, FERC	Actual Recent	May 2013
NET-1322.2	Gas, FERC	Projected	May 2013

422. Dr. Woolridge found several reasons that the number of “risk premium” variations presented by Dr. Avera indicates that the overall conclusions he draws from these studies are not robustly credible. First, multiplying the ways that a misdirected approach is quantified and presented merely multiplies the number of incorrect results. Second, although Dr. Avera presented numerous risk premium variations in Complaint I, all but one of them was rejected.¹⁵⁷³ Third, the single risk premium variation that was given any (limited) weight in Complaint I has not been presented again here, and the Commission stated in Opinion No. 531-B and 531 that it decided to place some weight on that earlier risk premium study only because the record of that proceeding was not complete in demonstrating the flaws in that approach.¹⁵⁷⁴

423. Dr. Woolridge summarized the methodology used in Dr. Avera’s risk premium studies. Each study starts by identifying what purports to be an average allowed ROE for each calendar year falling within the study period. For the FERC-based variations, this average is identified by attributing a base ROE to various settlement acceptance orders and litigation orders issued during that year.¹⁵⁷⁵ For the variations based on state commission outcomes, the average is taken from sources that compile settlement acceptance orders and litigation orders issued by state commissions. The resulting claimed annual averages are then compared to average utility bond yields for the same years, with the difference for each year representing an inferred “risk premium” for each year. The “risk premium” for each year is said to represent that year’s difference between the cost of equity and the cost of utility bonds.¹⁵⁷⁶ Each study’s collection of annual data points is then used to generate what Dr. Avera calls a “Risk Premium/Interest Rate Relationship.” Dr. Woolridge calls this relationship the “increase-per-decrease” ratio. This ratio purports to represent the amount by which the risk premium increases as the bond yield decreases, partially offsetting declines in the bond yield, such that the equity cost indicated by the sum of the bond yield and the risk premium is made to decline more slowly than does the bond yield.¹⁵⁷⁷ That increase-per-decrease ratio is then multiplied by the difference between each study’s current benchmark bond yield (i.e., either a recent

¹⁵⁷³ *Id.* at 106.

¹⁵⁷⁴ *Id.* at 106-107.

¹⁵⁷⁵ *Id.* at 107.

¹⁵⁷⁶ *Id.*

¹⁵⁷⁷ *Id.*

past actual bond yield or a recently projected future bond yield).¹⁵⁷⁸ That product is added to the sum of the study's average past bond yield and its average inferred "risk premium," and Dr. Avera then deems that total to represent the current cost of equity.¹⁵⁷⁹

424. Dr. Woolridge elaborated that these increase-per-decrease ratios have been calculated using the regression feature of the Microsoft Excel data analysis toolkit. In other words, an implicit scatterplot was created that took each year as a data point, with that year's utility bond yield as the x-axis coordinate and that year's inferred risk premium as the y-axis coordinate. The software then implicitly drew a straight line that came as close as possible to all of those scattered points. That line's slope was then sued as the increase-per-decrease ratio. The increase-per-decrease ratio is a critical element in Dr. Avera's risk premium studies, and it varies widely from instance to instance of those studies.¹⁵⁸⁰ This variability indicates that the ratio does not correspond to any underlying financial market reality and that Dr. Avera's risk premium studies are highly exposed to what Ms. Lapson calls "model risk."¹⁵⁸¹

425. Dr. Woolridge explained that in most instances, the study presumes that the attributed base ROE represents the cost of capital as of the month when the cited settlement order or litigation order issued. It makes that presumption without considering (1) when the record of that docket was compiled, (2) whether that order was based on a cost of capital study approved by the Commission, or (3) in those instances where an underlying cost of capital study can be identified, that study's study period.¹⁵⁸² In other instances, the study presumes that the attributed base ROE represents the cost of capital at a different time that Dr. Avera selected in consultation with NETOs' counsel.¹⁵⁸³ The attributed base ROEs also were developed by Dr. Avera in consultation with NETOs' counsel. In many instances, according to Dr. Woolridge, they do not correctly state the contents or basis of the case outcomes they reference.¹⁵⁸⁴

426. Dr. Woolridge presented studies that correct Dr. Avera's erroneous risk premium data points and show what indicated ROE then results from his methodology. The central rebuttal exhibit is Exhibit CAP-48, which adjusts Ex. NET-1316.1, and does so using the widest available set of case results data points.¹⁵⁸⁵ Dr. Woolridge identified that one as central because Ex. NET-1316.1 is the only one of NETOs' many risk premium studies presented that (a) is based on FERC electric ROE outcomes and actual recent bond yields, and thus resembles the risk premium study that FERC considered in Complaint I

¹⁵⁷⁸ *Id.*

¹⁵⁷⁹ *Id.* at 107-108.

¹⁵⁸⁰ *Id.* at 108.

¹⁵⁸¹ *Id.*

¹⁵⁸² *Id.*

¹⁵⁸³ *Id.*

¹⁵⁸⁴ *Id.*

¹⁵⁸⁵ *Id.* at 109.

more than it resembles the risk premium studies that FERC rejected in that case, and (b) covers a time period that is already complete, not due to be updated when final updates are submitted later in this proceeding.¹⁵⁸⁶ Dr. Woolridge testified that Ex. CAP-48 points to an ROE of 9.50%, while the corresponding result in Dr. Avera's studies is 10.64%.¹⁵⁸⁷

427. Dr. Woolridge identified five errors and non-credible presumptions built into Ex. NET-1316. First, most of the 73 case outcome data points that are collected in the underlying EX. NET-1316 pages 4-5 are settlements.¹⁵⁸⁸ Second, the allowed ROEs that are attributed to those settlements do not fairly and accurately reflect the cost-based ROEs, if any, that may have been associated with those settlements.¹⁵⁸⁹ Third, within the minority of case outcome data points that are associated with litigated outcomes, most of the data points mis-characterize the litigated outcome and depart from Dr. Avera's stated intent, and they do so in a way that erroneously inflates the base ROE outcome that is attributed to those proceedings.¹⁵⁹⁰ Fourth, the study's comparison of purported ROE allowances to supposedly contemporaneous annual average past bond yields takes no account of regulatory lag, i.e., the difference between (a) bond yields contemporaneous with the agreement to settlement terms or the compilation of a litigation record, and (b) bond yields contemporaneous with the date on which an order accepting a settlement or reaching a litigation result issues.¹⁵⁹¹ Fifth, the timing of the outcome dates that the study attributes to several of its data points has been manipulated so as to artificially inflate the "increase-per-decrease" ratio, producing an upwards-biased mis-calculation of the extent to which allowed ROEs stay high when bond yields decline.¹⁵⁹²

428. Dr. Woolridge considers it problematic to use settlement outcomes as risk premium data points because such use assumes that any visible ROE included in a settlement was viewed by the Commission as the cost-barred ROE contemporaneous with the settlement approval issuance date.¹⁵⁹³ That assumption ignores the fact that the Commission does not evaluate settlements to ensure that the charges they produce are equal to the cost of service; at most it checks whether the settlement ROE is within the range of proxy company DCF results, which, of course, commonly extends well above the cost-based ROE.¹⁵⁹⁴ Accordingly, the Commission's settlement approval orders, including those relied upon in Ex. NET-1316, typically include boilerplate language to the effect that in accepting a settlement, the Commission does not resolve on the merits

¹⁵⁸⁶ *Id.*

¹⁵⁸⁷ *Id.*

¹⁵⁸⁸ *Id.* at 110.

¹⁵⁸⁹ *Id.*

¹⁵⁹⁰ *Id.*

¹⁵⁹¹ *Id.*

¹⁵⁹² *Id.*

¹⁵⁹³ *Id.*

¹⁵⁹⁴ *Id.* at 110-111.

any cost-of-service issue.¹⁵⁹⁵ Dr. Woolridge testified that there is a selection bias inherent in counting FERC electric utility settlement outcomes when they include a visible ROE while not counting them when fully “black boxed.”¹⁵⁹⁶ The bias arises because settlements of FERC-jurisdictional rates set prices only for wholesale-level transactions, which typically represent a small fraction of the utility’s business, with the larger share being comprised of retail sales and distribution services that are rate-regulated by state commissions.¹⁵⁹⁷ The wholesale customers that participate in and settle FERC proceedings do not pay those retail rates, and are in various forms of competition with those retail services.¹⁵⁹⁸ However, all parties to FERC settlements are aware that if their settlement includes a visible ROE, it may influence state commission allowed ROEs for that same utility, and may (at the margins) effect the credit ratings and debt interest rates that both wholesale and retail customers ultimately fund.¹⁵⁹⁹ Consequently, the parties that settle FERC rate cases share a mutual incentive to make the ROE on which they agree visible only when it is relatively high, to conceal that ROE when it is relatively low, and to agree to a high nominal and visible ROE while reducing the allowed revenue through other means.¹⁶⁰⁰

429. Dr. Woolridge testified that, by using the example of *ITC Holdings Corp.*, that Ex. NET-1316 depends on reading Commission orders to say the opposite of what they actually say.¹⁶⁰¹ Ex. NET-1316 reads the June 2013 order as if it found that 12.38% remained a current cost-based ROE as of June 2013. To the contrary, Dr. Woolridge explained that the Commission said in that order, and repeated in a later order, that it was not addressing whether 12.38% remained a current cost-based ROE, because (a) the Commission said it was not making any such finding but rather would address that issue in a different proceeding, and (b) the Commission proceeded to set that exact same question for hearing, with the maximum statutory provision for refunds back towards June 2013.¹⁶⁰²

430. Dr. Woolridge explained that by mis-reading *ITC Holdings Corp.*, Dr. Avera created a false data point according to which the June 2013 present cost of equity was 12.38%, and thus stood 730 basis points above that month’s 5.08% yield on Baa utility bonds.¹⁶⁰³ This false data point then inflated the indicated cost of equity in two ways. First, it increased the average risk premium found for the overall study period, thus

¹⁵⁹⁵ *Id.* at 111.

¹⁵⁹⁶ *Id.*

¹⁵⁹⁷ *Id.*

¹⁵⁹⁸ *Id.*

¹⁵⁹⁹ *Id.*

¹⁶⁰⁰ *Id.* at 111-112.

¹⁶⁰¹ *Id.* at 117-119 (citing *ITC Holdings Corp.*, 143 FERC ¶ 61,257 P 25 (June 20, 2013)).

¹⁶⁰² *Id.* at 119.

¹⁶⁰³ *Id.* at 119-120.

inflating the “average risk premium over study period” that is calculated at Ex. NET-1316.3 and carried forward to Ex. NET-1316.1.¹⁶⁰⁴ In Dr. Avera’s workpapers, simply deleting this one erroneous data point (while making no other change to his calculations) reduces that “average risk premium” to 4.67% from 4.71%.¹⁶⁰⁵ Second, because it raises the average ROE supposedly found to be cost-based in 2013 (towards the end of the risk premium study years), it significantly distorts the decrease-per-increase regression analysis.¹⁶⁰⁶ Re-running the regression after deleting this one erroneous data point attenuates the rounded decrease-per-increase ratio to 0.79, instead of 0.84, which means that the reduced current bond yield is less diluted when calculating the overall indicated risk premium ROE.¹⁶⁰⁷ Taking both of these effects together, merely correcting one false data point reduces the ROE indicated by Ex. NET-1316 by 11 basis points.¹⁶⁰⁸ Dr. Woolridge testified that NET-1316 includes more than twenty false data points of that kind. Dr. Woolridge testified that if the false data points that he identified above were removed from Ex. NET-1316, without making any other adjustments, the risk-premium-indicated base ROE declines by a total of 27 basis points, to 10.37% instead of the 10.64% shown in NET-1316.1.¹⁶⁰⁹

431. Dr. Woolridge testified that the same five issues that he described above apply arise in connection with Ex. NET-1305, which is Dr. Avera’s risk premium study based on FERC electric case outcomes through 2014. All of the same issues apply because all of the data points and methodologies used in Ex. NET-1316 are carried forward into the Ex. NET-1305 study of the Complaint III Period.¹⁶¹⁰

432. Dr. Woolridge explained the issues that arise if the Complaint I base ROE of 10.57% is used as a risk premium study data point. Opinions Nos. 531, 531-A, and 531-B adjusted the DCF-based central results upwards, from a midpoint of 9.39% to a top-quarter allowed ROE of 10.57%, based on a finding that the relationship between interest rates and the cost of equity had become anomalous during the underlying study period.¹⁶¹¹ The fundamental premise of Ex. NET-1305 is that a consistent, linear relationship links the cost of equity to bond yields, such that at any given point in time, the risk premium difference between those two variables can be added to the bond yield to find the then-applicable cost of equity.¹⁶¹² If such a relationship had been found to apply during the period relevant to Complaint I, then those opinions indicate that the cost

¹⁶⁰⁴ *Id.* at 120.

¹⁶⁰⁵ *Id.*

¹⁶⁰⁶ *Id.*

¹⁶⁰⁷ *Id.*

¹⁶⁰⁸ *Id.*

¹⁶⁰⁹ *Id.* at 123.

¹⁶¹⁰ *Id.* at 128.

¹⁶¹¹ *Id.* at 128-129.

¹⁶¹² *Id.* at 129.

of equity would have been found to be 9.39%.¹⁶¹³ Using the anomaly-assuming 10.57% as a risk premium data point is therefore self-contradictory.¹⁶¹⁴ Moreover, Opinions Nos. 531, 531-A, and 531-B were also based to some extent on a risk premium study – the predecessor of Ex. NET-1305 itself.¹⁶¹⁵ Including that data point in a risk premium study is therefore logically circular, and more so than is the case for data points that trace back to DCF studies.¹⁶¹⁶ One of Dr. Avera’s most-cited sources, including in his workpapers, explains that the risk premium test “relies on a succession of DCF observations over long periods.”¹⁶¹⁷ Finally, this hearing was established in order to examine whether the 10.57% ROE adopted in those Opinions remains just and reasonable during the refund and prospective periods. The premise for the 10.57% being included in Ex. NET-1305 is that 10.57% represents the Commission’s finding as to the cost of equity as of June 2014. Assuming that premise would be inconsistent with the Commission’s decision to set a hearing for this case.¹⁶¹⁸

433. For each period, Dr. Woolridge presented a “narrow” version and a “wide” two version of adjusted risk premium studies.¹⁶¹⁹ The narrow version excludes the NETO risk premium data points that consist of settlements, litigation orders that extend predetermined region-wide base ROES to new RTO members, litigation orders that approve new incentives without re-opening predetermined base ROEs, and Opinion Nos. 531, 531-A, and 531-B. The wide version retains data points for most of those dockets, to the extent that a refreshed base ROE can be identified in the record or outcome of those dockets. In each version, Dr. Woolridge addressed the issues identified above through adjustments to the attributed base ROE and to the timing of the comparison utility bond yield.¹⁶²⁰

434. Dr. Woolridge corrected Dr. Avera’s expected earnings analysis in Ex. CAP-52. For each company in the National Proxy Group, he used Value Line’s expected Net Profit and expected Net Plant values and then divided by the expected Equity Ratio, and adjusted the results to reflect average rather than end-of-year returns.¹⁶²¹ The corrected expected earnings analysis produces an array of returns with a median of 9.5%.¹⁶²²

435. Dr. Woolridge testified that the low interest rate environment, which Dr. Avera

¹⁶¹³ *Id.*

¹⁶¹⁴ *Id.*

¹⁶¹⁵ *Id.*

¹⁶¹⁶ *Id.*

¹⁶¹⁷ *Id.* (quoting Roger Morin, *New Regulatory Finance*, at 131, reprinted at Ex. NET-1504 p.178).

¹⁶¹⁸ *Id.*

¹⁶¹⁹ *Id.* at 130.

¹⁶²⁰ *Id.*

¹⁶²¹ *Id.* at 138.

¹⁶²² *Id.*

believes to be distorting DCF results, also affects projections of holding company per-book-value earnings. He cited a Moody's article to illustrate this point.¹⁶²³

On a global basis, we nonetheless see a material amount of capital looking for regulated utility investment opportunities, and the same is true in the US, despite a lower authorized return. This is partly because investors can use holding company leverage to increase their actual equity returns, by borrowing capital at today's low interest rates and investing in the equity of a regulated utility.

436. Dr. Woolridge explained that the state-level ROEs are not a reliable guide to the current cost of equity, because they reflect old capital market information and a wide variety of functional contexts for applying those ROEs.¹⁶²⁴ He testified that some state commissions use fair value rather than embedded cost rate bases, and some state commissions weight their allowed ROEs using administrative rather than actual capital structures.¹⁶²⁵ Accordingly, Dr. Woolridge stated that they do not necessarily provide an apples-to-apples comparison to the ROEs at issue here.

437. Dr. Woolridge testified that Ms. Lapson's presentation of recent State Commission ROE decisions is inaccurate and misleading for several reasons. First, she relies on midpoints, which are skewed by a single 2013 settlement approval involving Georgia Power.¹⁶²⁶ He identified several problems with the heavy reliance Ms. Lapson places on the 10.95% allowed ROE she attributes to that case.¹⁶²⁷

438. Dr. Woolridge presented Figure 6, which provides the average quarterly authorized ROE for electric utility and gas distribution companies from 2000 until 2015 as compiled by Regulatory Research Associates. He testified that the trend has clearly been towards lower ROEs, and the current norm is below 10%.¹⁶²⁸ State-commission-authorized ROEs declined from 10.01% in 2012, to 9.8% in 2013, to 9.76% for 2014, and to 9.67% for the first three months of 2015.¹⁶²⁹ These authorized ROEs are below those cited by Ms. Lapson in her answering testimony, because her analysis sweeps in results from several years ago, when capital costs and authorized ROEs were higher.¹⁶³⁰

Figure 6 **Authorized ROEs for Electric Utility and Gas Distribution Companies**

¹⁶²³ *Id.* (citing Moody's Investors Service, *Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles* (Mar. 10, 2015)).

¹⁶²⁴ *Id.*

¹⁶²⁵ *Id.*

¹⁶²⁶ *Id.*

¹⁶²⁷ *Id.* at 140-141.

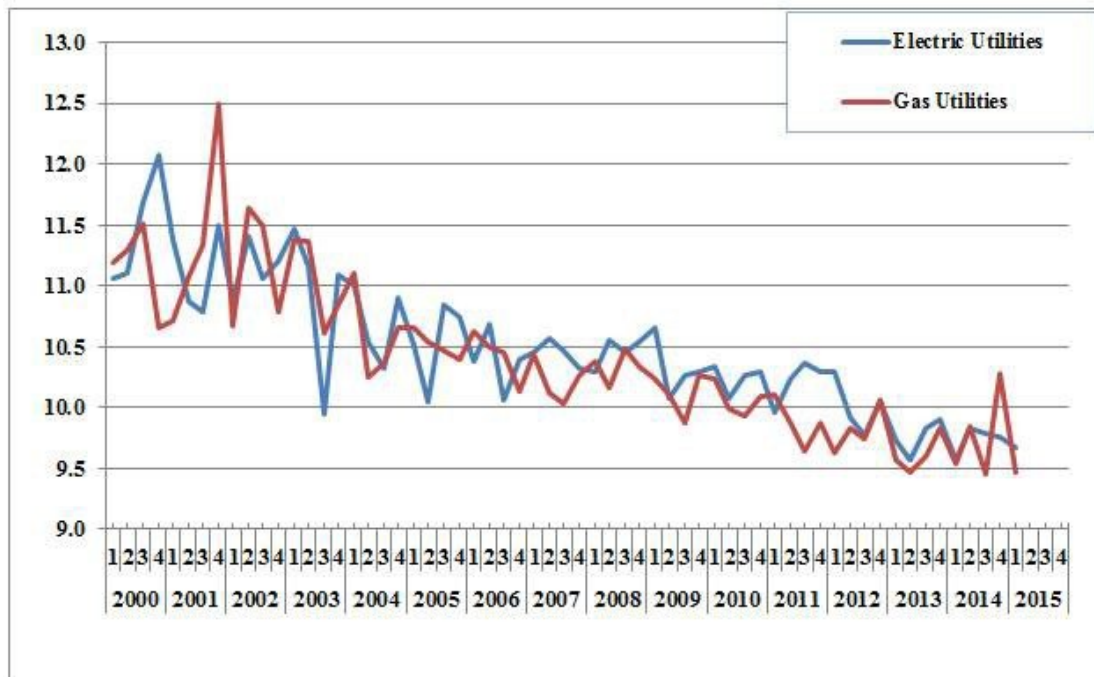
¹⁶²⁸ *Id.* at 141-142.

¹⁶²⁹ *Id.* at 141.

¹⁶³⁰ *Id.*

Source: Regulatory Focus, Regulatory Research Associates, 2015

Note: Excludes Virginia Rate Adder cases



439. Dr. Woolridge stated that in Exs. NET-1308, -1319, -1324, and -1325; Dr. Avera provided the allowed ROE for utilities in the various proxy groups as reported by AUS Utilities Reports. He stated that when similar studies were presented in Complaint I, they were rejected by both Judge Cianci's Initial Decision and Opinion No. 531.

440. Dr. Woolridge testified that his range of electric utility DCF results for the Complaint II Period is 7.02% to 10.64%.¹⁶³¹ he recommends reliance on the median ICOE in that study, 8.75%, while also noting that the 75th Percentile ICOE was 9.19%.¹⁶³² However, as he discussed above, based on new information presented by Staff Witness Joe in Exs. S-1 and S-3, Dr. Woolridge's corrected range for that period is 7.02% to 10.36%, while the median and 75th percentile are unchanged.¹⁶³³

441. For the Complaint III Period, Dr. Woolridge's range of electric utility DCF results are 6.19% to 11.53%.¹⁶³⁴ Subject to updating, he recommends reliance on the median ICOE in that study, 8.55%, while also noting that the 75th Percentile ICOE was 9.40%.¹⁶³⁵

¹⁶³¹ *Id.* at 145 (citing Ex. CAP-5).

¹⁶³² *Id.*

¹⁶³³ *Id.*

¹⁶³⁴ *Id.*

¹⁶³⁵ *Id.*

442. Dr. Woolridge believes that the DCF median for each period – 8.75% for the first period, and 8.55% (subject to updating) for the second period – provides the best estimate of the relevant cost of equity.¹⁶³⁶ Because he does not believe the capital market conditions are anomalous, he feels that looking to other equity cost metrics is not likely to improve the accuracy of the equity cost estimate.¹⁶³⁷

443. Dr. Woolridge, as explained above, believes that each periods' Base ROE should be set at the center of its DCF array and that the median is a better measure of that center than is the "midpoint." For the same reasons, he stated that the "top quarter," as another measure that depends excessively on the single highest DCF ICOE, does not provide a sound method for increasing the Base ROE above the median. While Dr. Woolridge does not think that the balance of the evidence of NETOs' cost of equity points towards a placement above the center of the DCF array, if the Presiding Judge were to conclude otherwise, Dr. Woolridge would still recommend that the Base ROE be set on the basis of a percentile of his DCF array.¹⁶³⁸ In that event, he would recommend either the 60th Percentile or the 75th Percentile values for each of the two periods at issue.¹⁶³⁹ Dr. Woolridge testified that the 60th Percentile values happen to be very close to the midpoint for both periods, and would thereby provide a way to achieve the midpoint end result in this proceeding while transitioning the Commission's ROE methodology to a more statistically sound basis.¹⁶⁴⁰ The 75th Percentile values are higher: for the Complaint II Period, 9.19%, and for the Complaint III Period, subject to updating, 9.40%.¹⁶⁴¹ Dr. Woolridge recommends placing the Base ROE for each period at the respective DCF median.

444. If the Commission decides to limit the base ROE reductions in this proceeding in order to address concerns about "magnitude," Dr. Woolridge explained that one way to do so would be to adopt a new policy under which the Commission's best estimate of the current cost of equity would become only one of two factors used to set the allowed ROE under Sections 205 and 206, while the other factor would be an objective index of the cost of equity recently found and allowed by state commissions in cases litigated before them.¹⁶⁴² While Dr. Woolridge has many reservations about ROEs allowed by state commissions, which he described earlier, they are a reality, and averages of multiple state commissions' litigated ROEs should usually exhibit the stability characteristic of moving averages.¹⁶⁴³ For the two most recent quarters covered by Regulatory Research Associates' "Regulatory Focus" compilation of recent state commission ROE findings,

¹⁶³⁶ *Id.* at 146.

¹⁶³⁷ *Id.*

¹⁶³⁸ *Id.*

¹⁶³⁹ *Id.*

¹⁶⁴⁰ *Id.*

¹⁶⁴¹ *Id.*

¹⁶⁴² *Id.* at 147-148.

¹⁶⁴³ *Id.* at 147.

the national average ROEs by quarter are 9.78% (Q4 2014) and 9.66% (Q1 2015), which average to 9.72%.¹⁶⁴⁴ Given the lag in state commission results, Dr. Woolridge recommends against using a different, older value for the Complaint II Period. Under the stabilization approach he is conditionally suggestion, that 9.72% average would receive 1/3 weight, and the respective DCF median results would receive 2/3 weight, in determining the allowed ROE for each period.¹⁶⁴⁵ With this stabilization in mind, his recommended allowed Base ROEs would become 9.07% for the Complaint II Period, and 8.94% for the Complaint III Period.¹⁶⁴⁶

7. EMCOS Rebuttal Testimony

445. Dr. Wilson's rebuttal testimony, filed on May 18, 2015, responded to the Answering Testimony of NETOs' witnesses Ms. Lapson and Dr. Avera that was filed on February 2, 2015 and the Cross Answering testimony of those same witnesses that was filed on April 21, 2014.¹⁶⁴⁷

446. Dr. Wilson explained that all of the witnesses in this case agree that money costs in the U.S. economy have declined substantially since 2011. He stated that the essence of the dispute in this case is about whether the NETOs' allowed ROE should also decline, in order to reflect this well-known and generally acknowledged decline in money costs.¹⁶⁴⁸ This dispute centers on whether the observed money cost decline and consequent lower ROE requirements that are indicated by financial models (most significantly in this case, the Commission's DCF model) are affected by an anomaly that somehow requires that those model results be adjusted upward for transmission ratemaking purposes.¹⁶⁴⁹

447. Dr. Wilson defined an anomaly as something that deviates from what is standard or expected. In stock market analyses, anomalies are departures from the efficient market hypothesis, which states that at any given time and in a liquid market, security prices fully reflect all available information. Accordingly, if markets are efficient and current prices reflect all information, attempts to outperform the market are essentially a game of chance rather than one of skill.

448. Dr. Wilson testified that the NETOs' witnesses, in contrast, define anomalies in terms of persistent and long-lingering effects on interest rates and the value of financial assets. In this case, they say that anomalous conditions exist in both of the defined complaint periods because there are discrepancies in both periods between the mid-point results that they derive using the Commission's two-stage DCF model and their

¹⁶⁴⁴ *Id.* at 148.

¹⁶⁴⁵ *Id.*

¹⁶⁴⁶ *Id.*

¹⁶⁴⁷ Ex. EMC-7 at 2.

¹⁶⁴⁸ *Id.* at 2-3.

¹⁶⁴⁹ *Id.* at 3.

alternative estimates of the cost of equity.

449. Dr. Wilson testified that the NETOs' witnesses apparently believe that these anomalous conditions began in 2009 and will continue into the future. He thinks that this is a very long period of time over which to claim that persistent prevailing conditions are not standard, normal or expected – let alone that they are an abnormality. According to Dr. Wilson, prevailing low interest rates and other low money costs are now and have been expected, regular, quite normal and common for a substantial period of time.¹⁶⁵⁰

450. Dr. Wilson testified that the Commission's two stage model differs from the common constant growth model in that there are two growth rates – the initial period growth rate based on analysts' forecasts and the long term growth rate reflecting expected GDP growth in the U.S. economy.¹⁶⁵¹ The market price is the present value of all cash flows expected in the future discounted at a rate equal to the rate of return that investors require on the investment.¹⁶⁵² Present value is what an investor would be willing to pay today in order to obtain the expected cash flows in the future.¹⁶⁵³ Today's price is the present value of these expected cash flows, discounted at a rate that reflects the cost of capital, including the risk perceived by investors that their expectations will not be met.¹⁶⁵⁴

451. Dr. Wilson explained that investors' collective expectations regarding dividend growth are central to the DCF approach and these dividend growth expectations are the key to estimating the cost of common equity capital. While analysts may opine on what they think investors' dividend growth expectations may be, the only way in which investors reveal their collective expectations is in the market prices that they establish for common stock.¹⁶⁵⁵ Investors establish prices for common stocks on the basis of their collective expectations of future income streams (dividends and capital gains) relative to their return requirements for the level of perceived risk.¹⁶⁵⁶ Dr. Wilson further explained that while it is the consensus of investor expectations that establishes the price of common equities, and those expectations are ultimately concerned with investors' expected future income streams (i.e., dividends). This means that it is the expected growth in dividends which is most important in estimating "g" in the DCF calculation.¹⁶⁵⁷ It does not matter whether investors' expectations turn out to be right or wrong.¹⁶⁵⁸ Today's common stock prices, which enter the DCF calculation through the dividend

¹⁶⁵⁰ *Id.* at 5.

¹⁶⁵¹ *Id.* at 7.

¹⁶⁵² *Id.* at 8.

¹⁶⁵³ *Id.*

¹⁶⁵⁴ *Id.*

¹⁶⁵⁵ *Id.*

¹⁶⁵⁶ *Id.*

¹⁶⁵⁷ *Id.* at 9.

¹⁶⁵⁸ *Id.*

yield term, depend upon today's expectations for future growth.¹⁶⁵⁹ Expectations and requirements may be different at different times, and, therefore, the cost of common equity is likely to change over time.¹⁶⁶⁰

452. Dr. Wilson testified that it is not consistent with efficient capital markets theory to contend that conditions that have persisted for four to six years would not have been fully incorporated into the capital markets' calculus of the cost of equity capital, such that a DCF analysis would not provide accurate and reliable information on the level of returns required to meet the *Hope* and *Bluefield* capital attraction standards.¹⁶⁶¹ This is because a fundamental premise of the DCF model is the assumption that investors evaluate the risks and expected returns of securities in capital markets and collectively establish market prices which reflect *all* market expectations and adequately compensate them for *all* perceived risks.¹⁶⁶²

453. Dr. Wilson clarified that the point of his testimony is to demonstrate that the persistence of any allegedly "anomalous" conditions over time has by now led to the assimilation of the impact of those conditions (whatever they may be) into the capital market pricing function for equity capital captured by DCF analysis.¹⁶⁶³

454. Dr. Wilson testified that Ms. Lapson divided her "comparable" utilities into two groups, which she calls "Integrated Electric" and "All Electric."¹⁶⁶⁴ Her Integrated Electric group includes many utilities with substantial electric generation plant investment and many combination utilities that provide both electric and gas service.¹⁶⁶⁵ The All Electric group includes these same "integrated" companies and electric utilities that own and operate electric distribution and transmission property.¹⁶⁶⁶ According to Ms. Lapson, the "Integrated Electric" group is the preferred choice to compare with the NETOs.¹⁶⁶⁷ Dr. Wilson believes that this choice reflects the fact that gas companies and electric generators have been allowed somewhat higher returns than electric distribution and transmission facilities.¹⁶⁶⁸

455. Dr. Wilson testified that Ms. Lapson's analysis of state commission decisions is highly distorted by her choice to include gas companies and electric generators in both

¹⁶⁵⁹ *Id.*

¹⁶⁶⁰ *Id.*

¹⁶⁶¹ *Id.* at 10.

¹⁶⁶² *Id.*

¹⁶⁶³ *Id.* at 11.

¹⁶⁶⁴ *Id.* at 16 (citing Ex. NET-1400 at 37-50).

¹⁶⁶⁵ *Id.*

¹⁶⁶⁶ *Id.*

¹⁶⁶⁷ *Id.*

¹⁶⁶⁸ *Id.*

groups.¹⁶⁶⁹ He stated that, to Ms. Lapson, “All Electric” does not mean only electric – but electric plus all of the integrated companies as well, and that the consequence of her choice to include the gas companies and electric generators in both groups is that the higher returns to these companies dominates her results for both groups.¹⁶⁷⁰ He stated that had Ms. Lapson looked, instead, at a group that included only electric utilities, without contamination and dominance by the integrated companies, she would have found mid-points for these “All Electrics” of 9.51% in the April 1, 2012 - March 31, 2014 period that she treats as corresponding to the refund period for Complaint II, and 9.41 percent in the January 1, 2013 – December 31, 2014 survey period that she treats as corresponding to Complaint III.¹⁶⁷¹

456. Dr. Wilson explained that Ms. Lapson’s review of equity returns allowed by state regulatory commissions does not represent a sound procedure for the Commission to follow in determining the allowed ROE for the NETOs in this case.¹⁶⁷² State regulatory commissions use a variety of methodologies for determining the return on equity that they will allow utilities subject to their jurisdiction to earn.¹⁶⁷³ Blind reliance on state commission outcomes would incorporate the results of those methodologies into returns allowed by the Commission even where the state commission methodology is not one that the Commission finds reliable for purposes of determining returns on common equity that are subject to its own jurisdiction.¹⁶⁷⁴ Dr. Wilson warned that this approach would be an abdication of the Commission’s regulatory responsibility, untethered from any meaningful financial analysis, and would also fail to recognize the analytically uninformative way in which many state commission ROE results come about.¹⁶⁷⁵

457. Dr. Wilson further explained that state commission rate case decisions are often the result of comprehensive settlements among the utility, the Commission Staff, the consumer counsel and other interested parties to the case.¹⁶⁷⁶ In these settlements, compromises are reached on many regulatory policy, cost of service, cost allocation and rate base issues.¹⁶⁷⁷ Typically, the resulting ROE is “backed into” so as to achieve the agreed upon results for other rate base, cost allocation and cost of service issues.¹⁶⁷⁸ Also, stated ROEs in state commission decisions are often not even what the utility or Commission actually expect or intend to be earned. For example, a state commission decision may specify, say, a 10 percent rate of return “allowance” without consideration

¹⁶⁶⁹ *Id.* at 17.

¹⁶⁷⁰ *Id.*

¹⁶⁷¹ *Id.*

¹⁶⁷² *Id.* at 18.

¹⁶⁷³ *Id.*

¹⁶⁷⁴ *Id.*

¹⁶⁷⁵ *Id.*

¹⁶⁷⁶ *Id.*

¹⁶⁷⁷ *Id.* at 18-19.

¹⁶⁷⁸ *Id.* at 19.

of the fact that the decision also makes several test year cost disallowances which will result in the effective ROE being much lower than the nominal ROE.¹⁶⁷⁹ Dr. Wilson testified that the NETOs' witnesses did not consider these aspects of state commission decisions in applying their ROE methodologies that rely on state commission orders that specify a particular amount.

458. Dr. Wilson testified that the Commission has long stated its preference for the use of IBES data for short-term growth forecasts based on the fact that IBES data is a compilation of projected growth rates from various knowledgeable financial advisors within the industry and thus is viewed by capital markets as reflecting an average of numerous projections of short-term growth rates for companies in a given proxy group.¹⁶⁸⁰ In contrast, he stated that *Value Line* forecasts are usually made for each company by a single but different *Value Line* employee.¹⁶⁸¹ Generally, if one is going to rely on analysts' forecasts for DCF growth estimates, it is far better in Dr. Wilson's opinion to use the tempered forecasts of multiple independent analysts rather than a single forecast made by an investor advisory service employee.¹⁶⁸²

459. Dr. Wilson testified that the NETOs' witnesses do not agree that a result based on multiple analysts' forecasts is better than a result based on a single analyst's forecast. He explained that the suggestion that the number of analysts is generally not reported or not important to investors is inaccurate.¹⁶⁸³ Both the "Analyst Opinion" page and the "Analyst Estimate" page for each company covered on the Yahoo Finance web site prominently features the number of analysts providing earnings estimates and future price targets for each company to Thompson/First Call.¹⁶⁸⁴ Dr. Wilson stated that it cannot be seriously denied that a consensus estimate by multiple analysts is generally viewed as more credible than a single unsupported estimate by a single unidentified analyst or that investors do not consider how many analysts participating in providing a consensus estimate.¹⁶⁸⁵

460. Dr. Wilson explained that the Avera *Value Line* results are severely skewed by extreme and unsustainable outlier growth forecasts for two companies – Otter Tail Corp. and ITC Holdings Corp.¹⁶⁸⁶ The *Value Line* analyst in each of these two cases specified a 15.5% annual earnings growth forecast.¹⁶⁸⁷ Dr. Wilson cited *Bangor Hydro-Electric Co.*, which held that a 15.5 percent earnings growth rate fails to meet threshold tests of

¹⁶⁷⁹ *Id.*

¹⁶⁸⁰ *Id.* at 22.

¹⁶⁸¹ *Id.*

¹⁶⁸² *Id.*

¹⁶⁸³ *Id.*

¹⁶⁸⁴ *Id.* at 23.

¹⁶⁸⁵ *Id.*

¹⁶⁸⁶ *Id.*

¹⁶⁸⁷ *Id.*

economic logic and therefore has no place in a properly constructed proxy group.¹⁶⁸⁸ He stated that neither of these companies can be expected to achieve and sustain a 15.5% annual earnings growth rate, and there are no other earnings growth forecasts in that range, either by *Value Line* or IBES, for any other company.¹⁶⁸⁹ Dr. Wilson stated that, as of its most recent issue, *Value Line* has reduced its forecasted earnings growth rate projections for both of these companies substantially.¹⁶⁹⁰ According to Dr. Wilson, if these two outliers are simply removed from the DCF calculation, making no other changes to Dr. Avera's data or otherwise changing his proxy group, the corrected adjusted range is 6.46% to 11.23% and the midpoint is 8.85%.¹⁶⁹¹

461. Dr. Wilson testified that the NETOs' witnesses must not agree that high end outliers like these should be excluded from the DCF calculation because they made no such exclusions.¹⁶⁹² Moreover, they said that Opinion No. 531 notes that "under the two-step DCF methodology, it is unnecessary to screen the proxy group for unsustainable growth rates because the methodology assumes that the long-term growth rate for each company is equal to GDP."¹⁶⁹³ To Dr. Wilson, this is an obvious non-sequitur which misconstrues what the Commission actually said on the subject of high-end outliers in Opinion No. 531 at P 118 (emphasis supplied):

Under the two-step DCF methodology, it is unnecessary to screen the proxy group for unsustainable growth rates because the methodology assumes that the long-term growth rate for each company is equal to GDP. As a result, *no company in the proxy group we are adopting here* has a composite growth rate under the two-step DCF methodology in excess of the 7.66 percent growth rate of PNM Resources, Inc., or an ROE in excess of the 11.74 percent ROE of UIL Holdings. *And those percentages are well within any high-end outlier test we have previously applied in utility rate cases and are within the high-end outlier test advocated by the Complainants on exceptions.*

Setting the long-term growth rate equal to GDP slightly reduces but does not remove the distortion caused by high-end outliers. As the Commission used a case-specific frame of reference in finding the high-end outlier issues moot in Opinion No. 531, that decision cannot be reasonably read to foreclose application of the threshold tests of economic logic on which the Commission has historically relied on to exclude genuine high-end

¹⁶⁸⁸ *Id.* (citing *Bangor Hydro-Electric Co.*, 109 FERC ¶ 61,147 at P 205 (2004)).

¹⁶⁸⁹ *Id.*

¹⁶⁹⁰ *Id.*

¹⁶⁹¹ *Id.* at 24.

¹⁶⁹² *Id.*

¹⁶⁹³ *Id.* (citing Response to CAP-NET-1-11).

outliers.¹⁶⁹⁴ Dr. Wilson noted that screening for high-end outliers is critical in this case because failing to do so produces severely distorted growth estimates.¹⁶⁹⁵

462. Dr. Wilson testified that the NETOs' witnesses further inflated their recommended ROE by relying on their contention that capital markets are anomalous and by recommending using the mid-point of only the upper half of the DCF range rather than the mid-point of the entire range.¹⁶⁹⁶

463. Dr. Wilson explained that the growth rate that is relevant in the DCF cost of equity capital model is the rate of growth in dividends (or earnings) *per share* of a company's stock that accrues to the benefit of existing shareholders.¹⁶⁹⁷ That growth plus dividends is the total return that the stockholder earns on his investment share of stock.¹⁶⁹⁸ The GDP growth rate, on the other hand, measures total economy growth. Only a fraction of GDP growth is accounted for by *per share* growth.¹⁶⁹⁹ When the total economy grows, much of the total growth is represented by new companies, new shares of stock and new shareholders – not just *per share* growth of existing stock owned by existing stockholders.¹⁷⁰⁰ Thus, if the economy grows by 10 percent, but half of that growth is represented by new shares of stock, only half of the GDP growth (5 percent) will result in growth in returns to existing shareholders.¹⁷⁰¹ Therefore, Dr. Wilson further explains, it is likely that GDP growth will be far *greater* than the earnings or dividend growth per share of stock for any individual company in the economy.¹⁷⁰²

8. Updated Testimony

8.1 Updated testimony and exhibits of Professor Woolridge

464. On May 29, 2015, Dr. Woolridge provided updates to the tables, figures, and exhibits to his prior testimony, using the same sources and methodologies he used previously. Dr. Woolridge updated Table 4 and Figure 4 from page 51 of his initial testimony. He argued that his updated analysis shows that despite a sell-off in utility stocks occurring in early 2015, these stocks have still outperformed the S&P 500 over the past one and one-half years. Dr. Woolridge testified that since January 1, 2014, the DJU

¹⁶⁹⁴ *Id.* at 25.

¹⁶⁹⁵ *Id.*

¹⁶⁹⁶ *Id.* at 25-26.

¹⁶⁹⁷ *Id.*

¹⁶⁹⁸ *Id.*

¹⁶⁹⁹ *Id.*

¹⁷⁰⁰ *Id.*

¹⁷⁰¹ *Id.*

¹⁷⁰² *Id.*

index is up 21.3% and the S&P 500 is up 16.31%.¹⁷⁰³ Dr. Woolridge stated that the earned ROE for the DJU companies has dropped from 10.0% in December of 2014 to 9.6% in May of 2015, while the M-B ratio increased from 1.73X to 1.82X.

465. Dr. Woolridge updated Yahoo's 5-year EPS growth rate for Ameren Corporation (AEE), which he testified has declined from 8.9% in December, 2014 to 5.85% currently. Dr. Woolridge testified that in December of 2014, the yield on ten -year Treasuries was 2.20%. He explained that as of May, 2015 these yields declined in the first few months of 2015, but have since increased back to about 2.20%.¹⁷⁰⁴

466. Dr. Woolridge provided an updated DCF analysis for the Complaint II Period in Exhibit No. CAP-57 (Updated Exhibit CAP-5.5). He explained that this update used the corrected I/B/E/S long-term EPSG for Portland General of 6.60%.¹⁷⁰⁵ Dr. Woolridge's two-stage DCF analysis is provided in Exhibit No. CAP-69 (Updated Exhibit CAP-6).

467. Dr. Woolridge summarized the results of his updated DCF analyses.¹⁷⁰⁶ The results for the two updated analyses are presented on page 1 of Exhibit No. CAP-57 (Updated Exhibit CAP-5), and of Exhibit No. CAP-69 (Updated Exhibit CAP-6). Of the thirty proxy companies, only the DCF ICOE for Edison International fails the low-end filter test. As in Dr. Woolridge's initial testimony, he did not use the DCF ICOEs for ALLETE, Avista, Black Hills, El Paso, Empire District, and Otter Tail because they have no current EPSG projected growth rate according to Thompson Reuters. In addition, Dr. Woolridge excluded the DCF ICOE for IDACORP since it only comes from one analyst and therefore does not represent a consensus of analysts' opinions. Excluding these proxy companies leaves a total of 23 DCF ICOEs.

468. Dr. Woolridge testified that for the two-stage DCF model, the DCF ICOEs range from 6.87% to 10.92%, with a median, mean, and midpoint of the range of 8.12%, 8.26%, and 8.90%.¹⁷⁰⁷ The 75th percentile of the data is 8.82%. The top quarter of the range is 9.91%. Dr. Woolridge believes that the median is the best measure of central tendency. Therefore he concludes that an equity cost rate of 8.12% is appropriate for the NETOs. This result is lower than the earlier DCF results that I prepared for his initial Direct (or Answering) testimony prefiled in this docket on December 31, 2014.

469. Dr. Woolridge explained that page 7 of Exhibit No. CAP-69 provides an updated comparison of the relative riskiness of the NETOs and the proxy companies based on the weighted average of the S&P and Moody's credit ratings. He testified that the weighted average of the S&P and Moody's credit ratings for the NETOs (Panel A) are 2.10 and

¹⁷⁰³ Ex. CAP-54 at 3-4.

¹⁷⁰⁴ *Id.* at 4.

¹⁷⁰⁵ *Id.* at 4-5.

¹⁷⁰⁶ *Id.* at 12.

¹⁷⁰⁷ *Id.*

2.38 and for the proxy group companies (Panel B) are 2.70 and 2.87.¹⁷⁰⁸ He further explained that since the weighted average of the credit ratings for the NETOs is smaller than the proxy group companies, this analysis indicates that the NETOS are less risky than the proxy companies.

470. Dr. Woolridge updated his CAPM analysis in Exhibit No. CAP-70 (Updated Exhibit No. CAP-7). The summary results are provided on page 1. Dr. Woolridge used a risk-free interest rate of 4.0%, a Beta of 0.75, and a market risk premium of 5.5%. The updated CAPM equity cost rate is 8.1%.¹⁷⁰⁹

471. Dr. Woolridge testified that Exhibits CAP-64, CAP-65, and CAP-66 update adjustment exhibits that he presented previously, so as to encompass the Docket No. EL14-86 period through April 2015. He explained that the main adjustment is to update the BBB bond yield to use the average yield for November 2014 through April 2015.¹⁷¹⁰ Because these exhibits use case results as data points, he also added as additional data points the base ROE information associated with a litigated case result involving an April 2015 FERC determination of an electric utility's allowed ROE, the average of new state commission base ROE decisions issued during 2015 as collected in Regulatory Research Associates reports, and the prior recourse rate ROE that was re-applied in a natural gas certification decision issued in April 2015.

472. Dr. Woolridge testified that in Ex. CAP-65, he updated the Ex. CAP-50 adjustment of Ex. NET-1320.1, to reflect 2015 state commission issuances and updated recent utility bond yields. The resulting indicated cost of equity was 9.55%.¹⁷¹¹ My rebuttal testimony explains why none of these state-commission-based risk premium results should be given weight.

473. Dr. Woolridge explained that Exhibit CAP-67 (Updated Exhibit CAP-52) updates adjustment exhibits that he presented previously, so as to encompass the Docket No. EL14-86 period through April 2015. He testified that the corrected expected earnings analysis produces an array of returns with a median of 9.03%.¹⁷¹²

474. Dr. Woolridge testified that in Exhibit CAP-68 (Updated Exhibit CAP-53), he provides the reported allowed ROEs by AUS Utilities Report and Value Line for the companies in his proxy group. Using the updated AUS data, the mean and median allowed ROEs are 10.27%.¹⁷¹³ Using updated Value Line data, the mean and median

¹⁷⁰⁸ *Id.* at 13.

¹⁷⁰⁹ *Id.*

¹⁷¹⁰ *Id.* at 15.

¹⁷¹¹ *Id.* at 16.

¹⁷¹² *Id.* at 17.

¹⁷¹³ *Id.*

allowed ROEs are 10.18% and 10.20%.¹⁷¹⁴

475. Dr. Woolridge concluded that his updates to the Complaint II Period (to use a further-corrected EPS for Portland General) do not change the median of his utility DCF study, and do not change his recommendation to set the Base ROE at that median, 8.75%. He testified that they do lower the top of his DCF range, to 10.36%, as shown in Ex. CAP-57.¹⁷¹⁵ That reduction affects his recommended Maximum ROE for that period. If the cap is set at the top of the DCF range, it would fall to 10.36%.¹⁷¹⁶

476. Dr. Woolridge concluded that updates to the Complaint III Period change the DCF median and range for that period. He testified that, as updated, the median is 8.12%, and the top of the range is 10.92%.¹⁷¹⁷ Accordingly, Dr. Woolridge's primary recommendations for that period are to set the Base ROE at 8.12% and the Maximum ROE at 10.92%.

8.2 Updated testimony of Dr. Wilson on behalf of EMCOS

477. Dr. Wilson agrees with Ms. Joe that ITC Holdings Corp should not be included in the DCF calculation for this period due to significant merger activity in which the Company was engaged. He also agrees with Ms. Joe that it is appropriate to exclude PNM Resources from the DCF calculation for this period because the Company's Baa3 credit rating from Moody's lies outside the comparable risk credit rating band screen from A1 to Baa2. Dr. Wilson testified that for Portland General Electric, the corrected IBES earnings growth forecast of 6.60 percent should be used rather than the erroneous 7.97 percent figure that was previously published by Thompson-Reuters.¹⁷¹⁸ He testified that by making these corrections, the mid-point of the two-step DCF results for the period October, 2013 through March, 2014 becomes 8.73 percent instead of 9.17 percent as reported in his original Exhibit No. EMC-5, with an average for the thirty-three companies of 8.75 percent and a median of 8.80 percent.¹⁷¹⁹

478. Dr. Wilson explained that for the most current period from November, 2014 through April, 2015, using the Commission's two-step computational procedure with IBES earnings growth forecasts as of May, 2015, for 33 electric utilities that conform to the specified selection process for inclusion in the proxy group, the lowest single implied cost of common equity capital is 6.20% and the highest single implied cost of common equity capital is 11.09%, with a midpoint of 8.65%, a median of 8.36% and an average of

¹⁷¹⁴ *Id.*

¹⁷¹⁵ *Id.*

¹⁷¹⁶ *Id.*

¹⁷¹⁷ *Id.*

¹⁷¹⁸ Ex. EMC-8 at 5-6.

¹⁷¹⁹ *Id.* at 6.

8.23%.¹⁷²⁰ Dr. Wilson concluded that these results confirm that the cost of common equity capital for the NETOs is well below the 10.57 percent base ROE that is now in the formula used to calculate rates for transmission service under the ISO-NE Open Access Transmission Tariff (“OATT”). Dr. Wilson explained that, because the NETOs’ financial risk is substantially less than the financial risk of the national proxy group, the allowed ROE for these companies should be below (or, at most, no greater than) the average required ROE for the national proxy group. He therefore recommends that the allowed ROE in this case be set in the range defined by the 25th percentile level (7.43%) as shown in Exhibit No. EMC-10, and 8.65 %, the mid-point of the indicated range.¹⁷²¹

479. Dr. Woolridge testified that the simple average common equity ratio for the NETOs was 55.7 percent at December 31, 2013. In contrast, the simple average common equity ratio for the updated national proxy group in this case, as reported by Value Line was 48.63 percent in 2014 and is forecasted to be 48.65 percent in 2015.¹⁷²² Dr. Woolridge explained that a 10 percent ROE in relation to \$1.0 million of rate base with a 55.7% common equity ratio produces \$92,852 of before tax equity costs to ratepayers, whereas a 10 percent ROE in relation to \$1.0 million of rate base with a 48.65% common equity ratio produce \$81,083 of before tax equity costs to ratepayers. Thus, Dr. Woolridge concludes that the NETOs’ substantially higher average common equity ratio would warrant an equity return allowance well below the level indicated for the proxy group.¹⁷²³

8.3 Prepared Supplemental Testimony of Dr. Avera

480. Dr. Avera’s supplemental testimony (Exhibit No. NET-1700) updates his analyses of a fair Base ROE for NETOs to reflect the most recently available information concerning the criteria used to identify his proxy group and the inputs to his quantitative analyses for the time periods applicable to the Complaint III Period. Based on the updated results of his evaluation, Dr. Avera continues to conclude that the existing base ROEs currently approved for the NETOs remain just and reasonable. For the time periods applicable to Complaint III, his supplemental testimony demonstrates that:¹⁷²⁴

- Application of the two-step DCF methodology based on earnings growth estimates from IBES results in an adjusted ROE zone of reasonableness of 7.12% to 12.25%, with a midpoint of 9.68%, and midpoint of the upper half of the range of 10.97%;
- Application of the two-step DCF methodology based on earnings growth

¹⁷²⁰ *Id.*

¹⁷²¹ *Id.* at 10.

¹⁷²² *Id.*

¹⁷²³ *Id.* at 11.

¹⁷²⁴ Ex. NET-1700 at 1.

estimates from Value Line results in an adjusted ROE zone of reasonableness of 6.08% to 12.20%, with a midpoint of 9.14%, and a midpoint of the upper half of the range of 10.67%.

481. For the Complaint III Period, the Dr. Avera testified that his updated analyses demonstrate that:¹⁷²⁵

- The utility risk premium approach based on Commission-approved ROEs for electric utilities implies an ROE point estimate of 10.36%;
- The forward-looking CAPM estimates produce an ROE range of 7.50% to 12.61%, with a midpoint of 10.06%;
- Earned returns for the electric utility industry are expected to average 10.62%, and the earned returns for Dr. Avera's proxy group are expected to fall in a range of 7.61% to 16.37% with a midpoint of 11.99%;
- The overall average of the midpoint cost of equity estimates resulting from these alternative ROE benchmarks is 10.76%; and,
- Allowed returns for Dr. Avera's proxy group fall in a range of 9.19% to 12.50%, with a midpoint of 10.84%.

480. Should the Commission elect to fix a new ROE for the Complaint III Period, Dr. Avera recommends a range of reasonableness of 7.12% to 12.25% and a base ROE of 10.97%, which corresponds to the middle of the upper end of the IBES-based DCF range.¹⁷²⁶

8.4 Prepared supplemental testimony and exhibits of Ms. Lapson

482. Ms. Lapson testified that her updated State ROE analysis supports her earlier conclusion that the ROEs recommended by Drs. Woolridge and Wilson and by Staff witness Ms. Joe are remarkably low relative to the ROEs authorized in state jurisdictions.¹⁷²⁷ She explained that the range of authorized base ROEs for the integrated electric utilities group in the updated study is 9.50% - 10.95%, identical with the range for integrated electric utilities in the original study for the Complaint 3 Period. Dr. Woolridge's recommended base ROE of 8.55% base ROE for the Complaint 3 Period is 95 basis points below the lowest ROE decision in that period. Dr. Wilson's ROE recommendation is even lower, resulting in an even greater discrepancy a 113 basis points discrepancy for the Complaint 3 Period. Staff Witness Ms. Joe's recommended

¹⁷²⁵ *Id.* at 2.

¹⁷²⁶ *Id.* at 3.

¹⁷²⁷ *Id.* at 4.

base ROE of 9.03% is 47 basis points below the lowest state ROE decision. As shown graphically in Exhibit No. NET-1801 pages 3 and 4, the recommended base ROEs of Dr. Wilson, Dr. Woolridge, and Ms. Joe are substantially below the central tendency of the state ROE decisions in the Complaint 3 Period.¹⁷²⁸

483. Ms. Lapson continues to conclude that if the Commission were to adopt base ROEs for the NETOs as low as those recommended by Staff witness Ms. Joe or by Drs. Wilson and Woolridge, investors would take note of the substantial difference between authorized base ROEs for transmission and the substantially higher ROEs authorized in state jurisdictions for more conventional types of investment, and that future investment in transmission facilities would be less attractive to investors than investment in other types of assets.¹⁷²⁹

8.5 Statement of updated ROE analysis of Ms. Joe

484. On May 29, 2015, Staff witness Sabina Joe submitted an updated DCF analysis and updated capital market condition conclusions for the RTO-wide Base ROE and the cap on incentive ROEs for all Transmission Owners (TOs) in ISO-New England RTO for Complaint III.¹⁷³⁰ The unadjusted Base ROE will be applicable to LNS, which is generally transmission below 69 kV and at most 115 kV.¹⁷³¹ Subject to the DCF zone of reasonableness, the Base ROE will be applicable with incentive adders ranging from 50 to 175 basis points to RNS and Commission approved incentive transmission projects in the ISO-NE RTO.

485. Ms. Joe submitted two alternative DCF analyses (DCF I and DCF II) in her updated testimony for the Complaint III Period. These DCF analyses are based on synchronized stock prices, dividends, and authenticated IBES growth rates for the six months ending April 30, 2015 combined with May 19, 2015 authenticated IBES growth rates.¹⁷³² The May 19, 2015 authenticated IBES growth rates were the most up-to-date authenticated IBES growth rates she could practically obtain to meet the May 29, 2015 deadline for updated testimony.¹⁷³³

486. Ms. Joe explained why she developed these two alternative DCF analyses. In Opinion No. 531, the Commission accepted a DCF analysis based on a Yahoo! growth rate sourced 23 days after the calculated March month-end dividend yield with which it was matched.¹⁷³⁴ Thus, Opinion No. 531 refers to an accepted study period ending March

¹⁷²⁸ *Id.* at 5.

¹⁷²⁹ *Id.* at 10.

¹⁷³⁰ Ex. S-5 at 1-2.

¹⁷³¹ *Id.* at 2.

¹⁷³² *Id.*

¹⁷³³ *Id.*

¹⁷³⁴ Opinion No. 531, 147 FERC ¶ 61,234 (2014).

31, 2013 but the growth rate in its adopted DCF analysis was sourced on April 23, 2013. Also, the Presiding Administrative Law in this proceeding issued a procedural order in the instant dockets on February 5, 2015, setting the cut-off date for updated data as the day the Update of Studies in Prior Testimony is due, May 29, 2015.¹⁷³⁵ Therefore, while Ms. Joe believes that it is more appropriate to use synchronized data for the six month study period, she also provides here an alternative DCF II analysis with the most recent growth rates.

487. Ms. Joe explained why she developed these two alternative DCF analyses. In Opinion No. 531, the Commission accepted a DCF analysis based on a Yahoo! growth rate sourced 23 days after the calculated March month-end dividend yield with which it was matched.¹⁷³⁶ Thus, Opinion No. 531 refers to an accepted study period ending March 31, 2013 but the growth rate in its adopted DCF analysis was sourced on April 23, 2013. Also, the Presiding Administrative Law in this proceeding issued a procedural order in the instant dockets on February 5, 2015, setting the cut-off date for updated data as the day the Update of Studies in Prior Testimony is due, May 29, 2015.¹⁷³⁷ Therefore, while Ms. Joe believes that it is more appropriate to use synchronized data for the six month study period, she also provides here an alternative DCF II analysis with the most recent growth rates.

488. Ms. Joe explained that analyst growth rates should be dated as of the end of the six-month study period used to calculate the dividend yields because it is important to synchronize dividends with stock prices in order to accurately calculate the dividend yield.¹⁷³⁸ These dividend yields in turn should be synchronized with the applicable analyst growth rate estimates so that all the market data reflects what the market “knows” at the same point in time.¹⁷³⁹ Since the ROE is equal to the dividend yield plus the growth rate, a change in one component without a concurrent change in the other component would potentially distort the DCF result.¹⁷⁴⁰ A credible growth rate estimate contributed by an investment analyst is based on what the analyst knows about the economic and business operating events affecting a company at a certain point in time. If an economic collapse, earnings update, merger announcement, business operating disruption, or other economic or business operating change occurs after the end of a month, the analyst’s growth rate estimate for that company would likely be affected.¹⁷⁴¹ However, the stock price would also likely be affected by such events.¹⁷⁴² Matching an analyst’s growth rate estimate after such significant events have occurred with stock prices dating from before

¹⁷³⁵ Ex. S-5 at 3.

¹⁷³⁶ Opinion No. 531, 147 FERC ¶ 61,234 (2014).

¹⁷³⁷ Ex. S-5 at 3.

¹⁷³⁸ *Id.* at 3-5.

¹⁷³⁹ *Id.* at 4.

¹⁷⁴⁰ *Id.*

¹⁷⁴¹ *Id.*

¹⁷⁴² *Id.*

the occurrence of such potentially market-moving events distorts the calculated DCF ROE results.¹⁷⁴³

489. Ms. Joe showed her updated primary DCF I analysis based on market data for the six month period ending April 30, 2015, which resulted in a midpoint value of 8.68 percent, a median of 8.15 percent, a Top Quarter value (halfway between the midpoint and the top of the zone of reasonableness) of 9.80 percent, and a zone of reasonableness between 6.45% and 10.92%.¹⁷⁴⁴ She recommends placement of the Base ROE at the midpoint of 8.68 percent for LNS.¹⁷⁴⁵ Based on her DCF I analysis, she recommends a Base ROE of 8.68 percent and a maximum ROE cap at the top of her zone of reasonableness of 10.92 percent for RNS and interstate transmission projects with 50-175 basis point adders.¹⁷⁴⁶

490. Ms. Joe showed that her alternative DCF II analysis resulted in a midpoint value of 8.74 percent, a median of 8.31 percent, a Top Quarter of 9.95 percent, and a zone of reasonableness of 6.33 percent to 11.15 percent.¹⁷⁴⁷ If the DCF II analysis is accepted by the Presiding Administrative Law Judge and the Commission, she recommends the Base ROE be set at the midpoint value of 8.74 percent for LNS transmission. She recommends that RNS and interstate transmission incentive projects' ROEs with 50 to 175 basis point adders receive a Base ROE of 8.74 percent and be capped at the top of the zone of reasonableness of 11.15 percent.¹⁷⁴⁸

491. Ms. Joe testified that, subject to the alternative authentic IBES growth data used in her DCF I and DCF II analyses explained above, she used the same ROE methodology as in her direct and answering testimony in this proceeding, as adjusted by updated market data.¹⁷⁴⁹ Her proxy group criteria are also the same as those she previously filed in this proceeding.¹⁷⁵⁰ She explained that she excluded 20 companies from the 47-company universe of *Value Line*-recognized electric utilities for the DCF I analysis and she excluded 19 *Value Line*-recognized electric utilities for the DCF II analysis.¹⁷⁵¹

492. Ms. Joe testified that the issuer credit ratings (ICRs) and proxy group comparable risk band for the target NETOs have changed since her March 23, 2015 filed testimony in this proceeding, but that this change has no practical impact on the credit rating

¹⁷⁴³ *Id.*

¹⁷⁴⁴ *Id.* at 5 (see Ex. S-6 at 1).

¹⁷⁴⁵ *Id.*

¹⁷⁴⁶ *Id.* at 6.

¹⁷⁴⁷ *Id.* (see Ex. S-6 at 7).

¹⁷⁴⁸ *Id.*

¹⁷⁴⁹ *Id.*

¹⁷⁵⁰ *Id.* at 7 (see Ex. S-1 at 25-26).

¹⁷⁵¹ *Id.* (see Ex. S-6 at 2).

exclusions for the proxy group.¹⁷⁵² Of the eleven NETOs, only the ICRs for Eversource Energy and its operating subsidiaries have changed.¹⁷⁵³ On April 23, 2015 Standard & Poor's (S&P) upgraded its ICR for Eversource Energy and its subsidiaries from A- to A.¹⁷⁵⁴ Therefore, the appropriate one-notch-up and-down span changes from an S&P comparable risk band of A to BBB- to a new comparable risk band of AA to BBB-.¹⁷⁵⁵ Since there are no *Value Line*-recognized electric utilities with AA ratings, no new proxy companies are added by this change. The Moody's ICR comparable risk band remains A1 to Baa2.

493. Ms. Joe explained that for her DCF I analysis, she eliminated six companies with Moody's Baa3 ICRs which are outside the appropriate risk band and she also excluded a seventh company for lack of any S&P or Moody's ICR.¹⁷⁵⁶ They are Entergy, FirstEnergy, MGE Energy, PNM Resources, PPL Corporation, PEPCO Holdings, and SCANA.¹⁷⁵⁷ With respect to her most up-to-date DCF II analysis, Moody's upgraded the ICR for PPL Corporation from Baa3 to Baa2 on May 11, 2015.¹⁷⁵⁸ Therefore, it is included in her DCF II proxy group.¹⁷⁵⁹ Also, on May 21, 2015 Moody's downgraded Wisconsin Energy Corporation from A2 to A3.¹⁷⁶⁰ This has no impact on any of Ms. Joe's DCF I or DCF II ROE results since Wisconsin Energy remains within her comparable risk band, but it is excluded from both her DCF I and DCF II proxy groups for merger activity.¹⁷⁶¹

494. On the basis of her merger and acquisition screening criterion, Ms. Joe eliminated eight companies engaged in merger or acquisition/spin-off activity that would have distorted the DCF inputs: Cleco, Exelon, Hawaiian Electric, Integrys Energy, PEPCO Holdings, TECO Energy, UIL Holdings, and Wisconsin Energy.¹⁷⁶² Her rationale for excluding Cleco, Exelon, Hawaiian Electric, Integrys Energy, PEPCO Holdings, and Wisconsin Energy is the impact of their continuing merger activity on the DCF inputs.¹⁷⁶³ Although the merger activity for TECO Energy and UIL Holdings discussed in her prior testimony has ended, both of these companies are now the subject of new merger and/or acquisition/sale activity which affects the DCF inputs, and she has therefore excluded

¹⁷⁵² *Id.*

¹⁷⁵³ *Id.*

¹⁷⁵⁴ *Id.*

¹⁷⁵⁵ *Id.* at 7-8.

¹⁷⁵⁶ *Id.* at 8 (see Ex. S-6 at 4).

¹⁷⁵⁷ *Id.*

¹⁷⁵⁸ *Id.*

¹⁷⁵⁹ *Id.* (see Ex. S-6 at 8-9).

¹⁷⁶⁰ *Id.* at 8-9.

¹⁷⁶¹ *Id.* at 9.

¹⁷⁶² *Id.*

¹⁷⁶³ *Id.* (see Ex. S-1 at 36-38).

them from her proxy groups.¹⁷⁶⁴ TECO Energy (TECO) closed its acquisition of New Mexico Gas Company on September 4, 2014, but announced the sale of its Coal Unit subsidiary on October 20, 2014.¹⁷⁶⁵ The announced sale involved a sales price of \$170 million including \$50 million in future payments contingent on coal prices.¹⁷⁶⁶ However, on February 6, 2015, TECO announced a revised reduced sales price of \$140 million including revised future contingency payments of \$60 million.¹⁷⁶⁷ Ms. Joe testified that the October 20, 2014 sales announcement had a significant impact on TECO's stock price during her updated six-month study period from November 1, 2014 to April 30, 2015.¹⁷⁶⁸ She stated that TECO's stock price jumped 15 percent in the approximately three months after the initial sale announcement (until the February 6, 2015 sales price amendment) compared to its stock price for the almost two months before the October 20 sales announcement.¹⁷⁶⁹ This compares to an only 4 percent increase in the S&P 500 Index over the same period.¹⁷⁷⁰ TECO's stock price declined 2 percent following the February 6, 2015 announcement of a revision and reduction in its sale price.¹⁷⁷¹ This compares to the 3 percent increase experienced by the S&P 500 during that period.¹⁷⁷² The initial 15 percent jump in TECO's stock price is evidence to Ms. Joe that its stock price (and thus dividend yield) was materially affected by the announced major sale during Ms. Joe's updated study period, and thus she eliminated TECO from her proxy group.¹⁷⁷³ UIL Holdings announced in February 25, 2015 that it would be acquired by Iberdrola, S.A. in a deal valued at roughly \$3 billion.¹⁷⁷⁴ Just prior to that announcement on February 20, 2015, *Value Line* reported that it expected UIL Holdings' stock price to lag the market over the next six to twelve months.¹⁷⁷⁵ However, since the merger announcement, the UIL Holdings stock price has increased 9 percent compared to a 2 percent increase in the S&P 500 Index over the same period.¹⁷⁷⁶ Therefore, Ms. Joe eliminated UIL Holdings from her proxy groups due to significant merger and acquisition activity.¹⁷⁷⁷

495. Ms. Joe testified that, for her DCF analysis, she eliminated seven companies for lack of a current and legitimate IBES mean analyst growth rate at April 30, 2015: Allele,

¹⁷⁶⁴ *Id.* at 10.

¹⁷⁶⁵ *Id.*

¹⁷⁶⁶ *Id.*

¹⁷⁶⁷ *Id.*

¹⁷⁶⁸ *Id.*

¹⁷⁶⁹ *Id.*

¹⁷⁷⁰ *Id.* at 10-11.

¹⁷⁷¹ *Id.* at 11.

¹⁷⁷² *Id.*

¹⁷⁷³ *Id.*

¹⁷⁷⁴ *Id.*

¹⁷⁷⁵ *Id.*

¹⁷⁷⁶ *Id.*

¹⁷⁷⁷ *Id.*

Avista, Black Hills, El Paso Electric, MGE Energy, Otter Tail, and Until.¹⁷⁷⁸ For her DCF II analysis with updated authenticated IBES growth rates as of May 19, 2015, she eliminated nine companies lacking a legitimate and current IBES growth rate: Allele, Avista, Black Hills, El Paso Electric, Integrys Energy, MGE Energy, Otter Tail, Pepco Holdings, and Until.¹⁷⁷⁹ The last reported growth rates in some cases have been stale for several years and, in some cases, predate 2012 market conditions.¹⁷⁸⁰ Some of these growth rates were withdrawn or not re-confirmed by their own contributing broker-analysts.¹⁷⁸¹ Therefore, consistent with her prior testimony, Ms. Joe excluded companies with stale or incorrect IBES growth rates.¹⁷⁸² Her April 30, 2015 and May 19, 2015 IBES growth rates are authenticated by IBES as current and correct and are outsourced from Alacra On Demand (AOD) which has taken over this service from Thomson Reuters On Demand (TROD).¹⁷⁸³ As she discussed in her direct and answering testimony, excluding companies with stale or incorrect analyst growth rates is consistent with the Commission's concern that the growth rate data not be sourced from "slightly different time periods," in order to "ensure that growth rate estimates are internally consistent in an ROE analysis."¹⁷⁸⁴

496. Ms. Joe recommended placement of the Base ROE is at the midpoint of her alternative DCF I and DCF II analyses.¹⁷⁸⁵ She does not believe that placement in the upper half of the zone of reasonableness is warranted in the absence of anomalous capital market conditions.

497. Ms. Joe testified that, while utility stocks have come down from their lofty stock price performances in 2014 when they beat every other stock sector, electric utilities during the most recent six-month study period continue to display valuations that rival enterprises in the much riskier S&P 500 Index.¹⁷⁸⁶ She finds it remarkable that regulated utility monopolies recently outperformed and are now performing as well as much riskier profit-driven enterprises in the competitive free capital markets.¹⁷⁸⁷ On March 10, 2015, within her updated six month period of DCF analysis, Moody's advised in "Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles" that current robust regulatory cost recovery mechanisms prevent lower authorized ROEs from hurting regulated utility credit ratings.¹⁷⁸⁸ In fact, Moody's stated that despite any potential

¹⁷⁷⁸ *Id.* at 12.

¹⁷⁷⁹ *Id.*

¹⁷⁸⁰ *Id.*

¹⁷⁸¹ *Id.*

¹⁷⁸² *Id.*

¹⁷⁸³ *Id.*

¹⁷⁸⁴ *Id.* at 13 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90).

¹⁷⁸⁵ *Id.* at 14.

¹⁷⁸⁶ *Id.* at 15.

¹⁷⁸⁷ *Id.*

¹⁷⁸⁸ *Id.* (citing Ex. S-4 at 92-106).

declines in authorized profitability or material revision to stock price valuations, this favorable regulatory cost-recovery environment results in reasonably “unfettered access” to both debt and equity capital markets: “Today, we think utilities enjoy an attractive set of market conditions that will remain in place for the next few years.”¹⁷⁸⁹ Recently, on April 23, 2015, S&P actually upgraded Eversource Energy and its four NETOs subsidiaries’ credit ratings to A, making it the highest S&P rated *Value Line*-recognized electric utility, along with Southern Company.¹⁷⁹⁰ Moody’s also upgraded the credit ratings outlook for two of Eversource Energy’s NETOS, Public Service Company of New Hampshire and Western Massachusetts Electric Company, to positive (potential for credit ratings upgrade) from stable on May 19, 2015.¹⁷⁹¹ Indeed, the relatively low risk of regulated utility monopolies would cause one to expect lower Price/Earnings (P/E) valuations for utilities rather than that of riskier companies in the S&P 500 Index. However, on May 8, 2015 *Regulatory Research Associates* (RRA), an SNL Energy affiliate which publishes the RRA Utility Index that tracks 38 of the 47 *Value Line*-recognized electric utilities, projected that NETOs’ Eversource Energy (formerly Northeast Utilities) and NextEra Energy stocks will enjoy high expected 2015 stock P/E valuation multiples of 17.1 times earnings and 18.2 times earnings, respectively.¹⁷⁹² This rivals the much riskier broad market indices such as the S&P 500 Index which at April 15, 2015 traded at approximately 17.8 times 2015 expected earnings, above its 10-year average.¹⁷⁹³ RRA projects that NETOs’ publicly traded Eversource Energy and NextEra Energy will trade at high 2016 P/Es of 16.3 times estimated 2016 earnings and 16.8 times estimated 2016 earnings, respectively.¹⁷⁹⁴ These NETOs’ parent valuations compare very favorably with the rest of the electric utility segment, which RRA projects will only have an average 2015 P/E valuation of 16.4 times earnings and an average 2016 P/E valuation of 15.5 times earnings.¹⁷⁹⁵ UBS Securities LLC, a global financial firm cited by NETOs’ witness Dr. William Avera as the source for a 2012 quote in his Answering Testimony, admitted on April 21, 2015 that Eversource Energy is “trading at a 5% premium to peer based on a simple 2016 P/E.”¹⁷⁹⁶

498. Ms. Joe testified that the general consensus in the investment community is that low interest rates have benefited electric utilities.¹⁷⁹⁷ For the most recent six month study period, this view has continued to prevail. RRA ascribes the slide in utility stock performances after January 2015 to market nervousness about potential interest rate

¹⁷⁸⁹ *Id.* (citing Ex. S-4 at 93).

¹⁷⁹⁰ *Id.* at 15-16.

¹⁷⁹¹ *Id.* at 16.

¹⁷⁹² *Id.* (citing Ex. S-7 at 12).

¹⁷⁹³ *Id.*

¹⁷⁹⁴ *Id.*

¹⁷⁹⁵ *Id.* at 17.

¹⁷⁹⁶ *Id.* (citing Ex. S-7 at 6 and Ex. NET-1300 at 64-65).

¹⁷⁹⁷ *Id.*

hikes.¹⁷⁹⁸ A major reason for utility stocks benefiting from low interest rates is the higher dividend yield from utility stocks versus long-term U.S. Treasuries.¹⁷⁹⁹ RRA shows that the RRA Utility Index dividends yielded an average 3.61 percent on April 15, 2015 versus the 30-year U.S. Treasury bond yield of 2.75 percent, almost a full percentage point difference.¹⁸⁰⁰ However, electric utility valuations remain high despite the fact that interest rates have already increased from the 2012 to early 2013 period considered in Docket No. EL11-66-001.¹⁸⁰¹ During 2012-2013, the 10-year Treasury declined below 1.8 percent.¹⁸⁰² On May 12, 2015 the 10-year Treasury yielded 2.28 percent.¹⁸⁰³ The investment community continues to expect any increase in interest rates this year by the Federal Reserve to be moderate and measured.¹⁸⁰⁴ Indeed, the May 20, 2015 released minutes of the last Federal Open Market Committee meeting indicate that the much-anticipated June interest rate hike by the Federal Reserve appears now to be off the table.¹⁸⁰⁵ The *Financial Times* reported on April 11-12, 2015, that the ‘great flattening’ of the U.S. bond market – where the difference between short-dated and long-dated bond yields narrows – is expected to continue. The spread between the 30-year and two-year Treasury yields has dived to just over 2 percentage points, from more than 3.5 percentage points at the start of 2014.”¹⁸⁰⁶ This data supports the view that long-term interest rates will remain low for the next few years regardless of what the Federal Reserve does.¹⁸⁰⁷ Given that scenario of low interest rates, utilities would face attractive market conditions in the next few years. Low interest rates would benefit NETOs’ parent corporations that raise debt and equity capital in the public capital markets for their operating subsidiaries.¹⁸⁰⁸

499. Based on her updated analysis, Ms. Joe testified that NETOs have been able to attract capital under these capital market conditions and that the publicly traded dominant electric utility parents Eversource Energy and NextEra Energy appear to find capital markets favorable for issuing substantial new common stock in the near future.¹⁸⁰⁹ On April 1, 2015 Eversource Energy filed an automatic shelf registration statement for the potential sale of 2 million commons shares value at up to \$100.1 million.¹⁸¹⁰ On May 13, 2015 Eversource Energy filed a prospectus for the potential sale of an unspecified

¹⁷⁹⁸ *Id.* at 17-18 (citing Ex. S-7 at 8-9).

¹⁷⁹⁹ *Id.* at 18.

¹⁸⁰⁰ *Id.*

¹⁸⁰¹ *Id.*

¹⁸⁰² *Id.*

¹⁸⁰³ *Id.*

¹⁸⁰⁴ *Id.*

¹⁸⁰⁵ *Id.* (citing Ex. S-7 at 16-27).

¹⁸⁰⁶ *Id.* at 18-19 (citing Ex. S-7 at 29).

¹⁸⁰⁷ *Id.* at 19.

¹⁸⁰⁸ *Id.*

¹⁸⁰⁹ *Id.*

¹⁸¹⁰ *Id.* (citing Ex. S-7 at 51).

amount of certain securities including common shares, preferred shares, warrants, share purchase contracts, share purchase units and senior notes.¹⁸¹¹ On April 16, 2015, NextEra Energy registered 4 million common equity shares for issuance to the public at a potential value of up to \$419.56 million.¹⁸¹² In an April 9, 2015 review of year-to-date 2015 capital raises, RRA reports that on January 12, 2015 Northeast Utilities raised senior debt of approximately \$450 million at spreads above U.S. Treasury yields between 75-125 basis points.¹⁸¹³ On May 15, 2015 Connecticut Light & Power (NETO subsidiary of Eversource Energy) sold \$300 million of 4.150 percent mortgage bonds.¹⁸¹⁴

500. Ms. Joe explained that RRA reports that state-authorized ROEs for the first quarter of 2015 have come down to an average of 9.67 percent when incentive premiums are excluded.¹⁸¹⁵ For April 2015, RRA reports eight state authorizations for seven electric utilities and one gas utility.¹⁸¹⁶ Five of those cases were settlements that were silent on the ROE. The remaining three had authorized ROEs between 9.5 to 10.2 percent.¹⁸¹⁷ Ms. Joe testified that state-authorized ROEs necessarily lag any market data which may have been the basis for those determinations in state proceedings.

501. Ms. Joe testified that on May 9, 2015, *Barron's*, a leading investment advisory newspaper, published an article which advises that after the recent February-May 2015 pullback of electric utility stocks from their 2014 highs, the electric utility sector can be expected to return between 8 to 9 percent a year.¹⁸¹⁸ The article also quotes a Bernstein utility analyst: "The relative attraction of utilities has increased in an environment of slower economic growth, when earnings growth is being suppressed by a stronger dollar and energy prices."¹⁸¹⁹ Ms. Joe testified that further investment advisory updates to capital market conditions affirm a forward-looking 8 to 9 percent estimate of expected electric utility returns. She cited the American Appraisal's *Equity Risk Premium Quarterly* as of January 2015 confirms its use of a going forward 6.0 percent total market equity risk premium for use in the CAPM.¹⁸²⁰ She stated that this is in line with the *Value Line* estimated market risk premium that she reported in her direct and answering testimony.¹⁸²¹ Ms. Joe testified that the *Value Line* estimated total market risk premium inserted into the CAPM model yields a cost of equity for NETOs of about 8.12

¹⁸¹¹ *Id.* (citing Ex. S-7 at 52).

¹⁸¹² *Id.* at 19-20 (citing Ex. S-7 at 53-55).

¹⁸¹³ *Id.* at 20 (citing Ex. S-7 at 58).

¹⁸¹⁴ *Id.* (citing Ex. S-7 at 52).

¹⁸¹⁵ *Id.* (citing Ex. S-7 at 30).

¹⁸¹⁶ *Id.* (citing Ex. S-7 at 36).

¹⁸¹⁷ *Id.*

¹⁸¹⁸ *Id.* at 20-21 (citing Ex. S-7 at 41-42).

¹⁸¹⁹ *Id.* at 21 (citing Ex. S-7 at 41).

¹⁸²⁰ *Id.* (citing Ex. S-7 at 45).

¹⁸²¹ *Id.* (see Ex. S-1 at 89-90).

percent.¹⁸²² According to Ms. Joe, these investment community estimates of the cost of electric utility equity corroborates Ms. Joe's updated midpoint estimates for the Complaint III study period of 8.68 percent (DCF I) or alternative 8.74 percent (DCF II).¹⁸²³

9. Supplemental Testimony

9.1 Dr. Avera's January 15, 2016 supplemental DCF testimony

502. Dr. Avera explained that on December 18, 2015, the Presiding Administrative Law Judge issued an order to reopen the evidentiary record in this proceeding for the limited purpose of rerunning certain calculations using the discounted cash flow (DCF) methodology.¹⁸²⁴ Specifically, the Presiding Judge ordered that Dr. Avera's IBES-based DCF analyses previously submitted in this proceeding be re-run using "the dividend yield method described in paragraph 77 of Opinion No. 531."¹⁸²⁵ Paragraph 77 of Opinion No. 531 indicates that the dividend yield for each utility in the proxy group should be calculated using a three step process: (1) averaging the high and low stock prices for each of the six months in the study period; (2) calculating a monthly dividend yield in each month of the six-month study period by dividing the utility's indicated annual dividend for each month by its average stock price in that month; and (3) averaging those monthly dividend yields. In addition to calculating the dividend yield in compliance with the language in paragraph 77 of Opinion No. 531, the Presiding Judge ordered that my DCF analyses should be re-run using Gross Domestic Product ("GDP") growth rates of 4.38% and 4.39% for the Complaint II Period and 4.36% and 4.34% for the Complaint III Period. My purpose here is to provide the necessary calculations in compliance with the Presiding Judge's December 18, 2015 order.

503. Dr. Avera testified that the calculations contained in his supplemental testimony rely entirely on data that the parties have already submitted as of the close of the hearing record on July 2, 2015.¹⁸²⁶ Dr. Avera explained that for the Complaint II Period, no party to the proceeding presented dividend yields in compliance with the directives of the Commission and the Presiding Judge. Accordingly, it was necessary to re-run the dividend yield calculations for the Complaint II period using data sources in the evidentiary record. Dr. Avera explained that the stock prices and indicated dividend

¹⁸²² *Id.* (see Ex. S-1 at 89-90).

¹⁸²³ *Id.* at 22.

¹⁸²⁴ Ex. NET-2000 at 1 (citing *ENE (Environmental Northeast), et al. v. Bangor Hydro-Elec. Co., et al.*, Order to Reopen Record and Notice Establishing Prehearing Conference (Dec. 18, 2015) (Order to Reopen Record)).

¹⁸²⁵ *Id.* (citing Order to Reopen Record at P 14(c)).

¹⁸²⁶ *Id.* at 2.

payments necessary to re-run the dividend yield calculations for the companies in his proxy group for the Complaint II period are reported at pages 197-232 of Exhibit No. NET-1327, with the dividend yield calculations being presented on Exhibit No. NET-2003.¹⁸²⁷

504. Dr. Avera testified that after calculating the dividend yield in compliance with the language in paragraph 77 of Opinion No. 531 and incorporating a GDP growth rate of 4.38%, his DCF estimates ranged from 2.54% to 11.31%.¹⁸²⁸ He stated that after excluding illogical values of 2.54% and 5.06%, the adjusted DCF range of reasonableness is 7.03% to 11.31%.¹⁸²⁹ The midpoint of this range is 9.17% and the middle of the upper half of the DCF zone is 10.24%.¹⁸³⁰ Dr. Avera testified modifying this IBES DCF analysis to incorporate a GDP growth rate of 4.39% resulted in exactly the same adjusted range of reasonableness, midpoint, and middle of the upper half of the DCF zone.¹⁸³¹ Dr. Avera stated that these results are identical to the adjusted DCF range of reasonableness, midpoint, and the middle of the upper half of the DCF zone for the Complaint II Period presented on page 1 of Exhibit No. NET-1315.¹⁸³²

505. Dr. Avera testified that the Order to Reopen Record concluded that, “FERC Trial Staff (Staff) calculated the dividend yields of their proxy companies generally in compliance with the Commission’s instructions in paragraph 77 of Opinion No. 531.” Accordingly, with one exception, Dr. Avera adopted Staff’s dividend yield calculations for the Complaint III period, as presented in Exhibit No. S-7 at pages 127-153. All 27 utilities included in Staff’s proxy group for the Complaint III period were also included in Dr. Avera’s proxy group of 33 companies. Of the six remaining utilities, all but one (TECO Energy) were included in the proxy group used by Eastern Massachusetts Consumer-Owned Systems’ (EMCOS) witness Dr. Wilson. Accordingly, Dr. Avera’s re-run of the IBES DCF for the Complaint III period adopted Dr. Wilson’s dividend yield calculations for these five utilities.¹⁸³³

506. Dr. Avera testified that in calculating the dividend yield for Public Service Enterprise Group Inc. (PEG), Staff reflected an increase to the annualized dividend payment from \$1.48 per share in November 2014 to \$1.56 per share in December 2014.¹⁸³⁴ However, a review of PEG’s historical dividend payments, as reflected on page 72 of Exhibit No. NET-1712, indicates that PEG did not increase its annual dividend until the first quarter of 2015. Accordingly, Dr. Avera relied on the 3.63% dividend yield for

¹⁸²⁷ *Id.* at 3.

¹⁸²⁸ *Id.*

¹⁸²⁹ *Id.*

¹⁸³⁰ *Id.*

¹⁸³¹ *Id.*

¹⁸³² *Id.* at 4.

¹⁸³³ *Id.* at 4-5.

¹⁸³⁴ *Id.* at 5 (citing Ex. S-7 at 148).

PEG calculated by EMCOS's witness Dr. Wilson, rather than the 3.72% value calculated by Staff.¹⁸³⁵ Because the DCF estimate for PEG establishes the low end of the adjusted DCF range of reasonableness for the Complaint III period, making this correction to Staff's dividend yield for PEG had the effect of lowering the bottom end of the DCF zone and reducing both the midpoint and the indicated ROE based on the middle of the upper half of the DCF zone.¹⁸³⁶

507. Dr. Avera explained that his calculation of the dividend yield for TECO Energy for the Complaint III Period pursuant to paragraph 77 of Opinion No. 531 is shown in Exhibit No. NET-2006. He relied on low and high monthly stock prices presented in his testimony at Exhibit No. NET-1712. Matching annualized historical dividends in each month of the analysis period were calculated based on the quarterly dividend payments reported by the Value Line Investment Survey¹⁸³⁷ and as reflected in Exhibit No. NET-1936, which shows that TECO Energy increased its quarterly dividend payable on March 2, 2015 to shareholders of record as of February 13, 2015. To be conservative, Dr. Avera's calculations in Exhibit No. NET-2006 did not reflect the dividend increase until March, rather than in February 2015.¹⁸³⁸

508. Dr. Avera explained that, after calculating the dividend yield in compliance with the language in paragraph 77 of Opinion No. 531 and incorporating a GDP growth rate of 4.36%, DCF estimates ranged from 4.40% to 12.19%.¹⁸³⁹ After excluding an illogical value of 4.40%, the adjusted DCF range of reasonableness is 7.04% to 12.19%. The midpoint of this range is 9.62% and the middle of the upper half of the DCF zone is 10.90%. Dr. Avera testified that modifying this IBES DCF analysis for the Complaint III Period to incorporate a GDP growth rate of 4.34% resulted in the top end and midpoint of the adjusted range of reasonableness falling by one basis point.¹⁸⁴⁰ It resulted in exactly the same middle of the upper half of the DCF zone.¹⁸⁴¹

509. Dr. Avera testified that his original IBES DCF analysis for the Complaint III period resulted in an adjusted range of reasonableness of 7.12% to 12.25%, a midpoint of 9.68%, and a middle of the upper end of the DCF zone of 10.97%.¹⁸⁴² Accordingly, he explained that adopting the changes order by the Presiding Judge would reduce the lower bound of the IBES DCF range by 8 basis points, and reduce the upper bound by 6 (4.36% GDP growth rate) or 7 (4.34% GDP growth rate) basis points.¹⁸⁴³ The midpoint of the

¹⁸³⁵ *Id.* (citing Ex. EMC-13 at 2).

¹⁸³⁶ *Id.*

¹⁸³⁷ Ex. NET-1712 at 75.

¹⁸³⁸ NET-2000 at 6.

¹⁸³⁹ *Id.* (see Ex. NET-2004).

¹⁸⁴⁰ *Id.* at 7 (see Ex. NET-2004).

¹⁸⁴¹ *Id.*

¹⁸⁴² *Id.* (citing Ex. NET-1703)

¹⁸⁴³ *Id.*

DCF range would decline by 6 (4.36% GDP growth rate) or 7 (4.34% GDP growth rate) basis points.¹⁸⁴⁴ The ROE at the middle of the upper half of the DCF zone would decline by 7 basis points.¹⁸⁴⁵

9.2 Staff supplemental DCF testimony

510. On January 15, 2016, Staff submitted supplemental DCF testimony by expert witness Douglas Green. Mr. Green's business address is 888 First Street, 3 NE, Washington, D.C. 20426. He replaced Staff witness Sabina Joe, who retired. His experience and qualifications in the area of financial analysis are set forth in Exhibit No. S-32.

511. Mr. Green stated that the purpose of his testimony is to perform calculations as instructed by the Presiding Judge in the Order to Reopen Record. He explained that for purposes of my Complaint II Period analyses, he used the same proxy group that Ms. Joe used for the Complaint II period in her direct and answering testimony. Mr. Green testified that in Opinion No. 531 at paragraph 77, the Commission described the appropriate calculation of dividend yields. He noted that in paragraph 8 of the Order to Reopen Record, the Presiding Judge stated that Ms. Joe's dividend calculations are generally in compliance with Opinion No. 531. Mr. Green thus adopted Ms. Joe's dividend yield calculations for the Complaint II period for the months of October 2013 through February 2014.¹⁸⁴⁶ However, consistent with the Presiding Judge's instructions in paragraph 14 of that order, Mr. Green's DCF calculations for the Complaint II Period include dividend yields for the month of September 2013 and exclude Ms. Joe's dividend yields for March 2014.¹⁸⁴⁷ He calculated the September 2013 dividend yields in the same manner as Ms. Joe, using data provided in Dr. Avera's Workpapers as applied to my proxy group companies.¹⁸⁴⁸

512. Mr. Green explained that his calculations for the Complaint II Period incorporate the IBES-based short term growth rates for March 26, 2014 that Dr. Avera used for his Complaint II Period calculations, as shown in Exhibit No. NET-1315 at 1. However, as Ms. Joe explained in her testimony, he reiterated that the calculated 8.03 percent Portland General Electric Co. (Portland General) growth rate adopted in Dr. Avera's exhibit from Complainants' Exhibit No. CAP-5, page 4 was in error.¹⁸⁴⁹ Mr. Green testified that the correct IBES growth rate was 6.60 percent.¹⁸⁵⁰ Mr. Green presented two sets of Complaint II Period calculations for comparison purposes. The first set contains the

¹⁸⁴⁴ *Id.*

¹⁸⁴⁵ *Id.*

¹⁸⁴⁶ Ex. S-31 at 4.

¹⁸⁴⁷ *Id.*

¹⁸⁴⁸ *Id.*

¹⁸⁴⁹ *Id.*

¹⁸⁵⁰ *Id.* (citing Ex. S-1 at 49,63, 65; Ex. S-4 at 22-24).

correct 6.60 percent IBES growth rate for Portland General and the two alternative GDP growth rates. The second set contains Dr. Avera's incorrect 8.03 percent Portland General growth rate and the two alternative GDP growth rates.¹⁸⁵¹

513. Mr. Green stated that, as directed by the Presiding Judge in paragraph 16 of the Order to Reopen Record, he provided calculations for the Complaint II Period with a long term growth rate of 4.38 percent, and calculations with a long term growth rate of 4.39 percent. He stated that the 4.38 percent growth rate is consistent with Ms. Joe's testimony¹⁸⁵² and reflects the most recent data available for the Complaint II period. He explained that the 4.38 percent rate is the average of (1) the IHS Global Insight Forecast as of February 28, 2014; (2) the Energy Information Administration (EIA) estimate as of December 2013; and (3) the Social Security Administration estimate as of May 31, 2013.¹⁸⁵³

514. Mr. Green presented Table 1, which shows a comparison of the four different DCF calculations that he conducted for the Complaint II Period.

TABLE 1
COMPLAINT II PERIOD DCF ANALYSES

Description	Schedule	Median	Midpoint	75th %	Top Quarter	Range	
						Low	High
GDP Growth Rate 4.38% and Portland IBES 6.60%	1	8.81%	8.77%	9.23%	9.59%	7.12%	10.42%
GDP Growth Rate 4.38% and Portland IBES 8.03%	2	8.81%	8.90%	9.23%	9.79%	7.12%	10.68%
GDP Growth Rate 4.39% and Portland IBES 6.60%	3	8.81%	8.77%	9.23%	9.59%	7.12%	10.42%
GDP Growth Rate 4.39% and Portland IBES 8.03%	4	8.81%	8.90%	9.23%	9.80%	7.12%	10.69%

515. Mr. Green explained that, for purposes of his Complaint III Period analyses, he used the same 12 proxy group that Ms. Joe used for the Complaint III period in her updated testimony. He adopted Ms. Joe's dividend yield calculations through April 30, 2015 for the Complaint III period, as they are consistent with the Commission's methodology.¹⁸⁵⁴ Mr. Green used the same short term growth rates incorporated in Ms. Joe's Complaint III Period updated DCF calculations. For this period, Ms. Joe provided two alternative calculations: a Primary DCF Calculation using short term growth rates through April 30, 2015 and an Alternate DCF Calculation using short term IBES growth rates through May 19, 2015.¹⁸⁵⁵

¹⁸⁵¹ *Id.* at 5 (citing Ex. S-33).

¹⁸⁵² Ex. S-1 at 57 and Ex. S-3 at 7.

¹⁸⁵³ Ex. S-31 at 5 (citing Ex. S-3 at 7).

¹⁸⁵⁴ *Id.* at 6-7.

¹⁸⁵⁵ *Id.* at 7.

516. As directed by the Presiding Judge in paragraph 14 of the Order to Reopen Record, Mr. Green provided calculations for the Complaint III Period with a long term growth rate of 4.34 percent, and calculations with a long term growth rate of 4.36 percent. He stated that the 4.36 percent long term growth rate is consistent with Ms. Joe's analysis¹⁸⁵⁶ and reflects the most recent data available for the Complaint III period. He stated that the 4.36 percent long term growth rate is the average of the IHS Global Insight Forecast as of March 16, 2015; the EIA estimate as of April 2015; and the Social Security Administration estimate as of July 28, 2014.¹⁸⁵⁷

517. Mr. Green presented Table 2, which shows a comparison of the four different DCF calculations that he conducted for the Complaint III Period.

TABLE 2
COMPLAINT III PERIOD DCF ANALYSES

<u>Description</u>	<u>Schedule</u>	<u>Median</u>	<u>Midpoint</u>	<u>75th %</u>	<u>Top Quarter</u>	<u>Range</u>	
						<u>Low</u>	<u>High</u>
GDP 4.34% and IBES 4/30/15	5	8.16%	8.68%	8.67%	9.79%	6.44%	10.91%
GDP 4.34% and IBES 5/19/15	6	8.30%	8.74%	8.79%	9.94%	6.32%	11.15%
GDP 4.36% and IBES 4/30/15	7	8.17%	8.68%	8.68%	9.80%	6.45%	10.92%
GDP 4.36% and IBES 5/19/15	8	8.31%	8.74%	8.80%	9.95%	6.33%	11.15%

III. The Issues

518. Each complaint period is addressed separately; however, at some places in this decision both complaint periods must be addressed together. Where that occurs, it does not signal that any findings or conclusions that were discussed together are an abandonment of a ruling on each complaint period.

1. Threshold Issues Applying to Both Complaint Periods

519. On November 6, 2014, the undersigned issued an Order Establishing Procedural Schedule and Rules of Procedure for Hearing. That order required the parties to submit a Joint Statement of Issues and ordered that post-hearing briefs reflect the Joint Statement of Issues.¹⁸⁵⁸

¹⁸⁵⁶ Ex. S-6 at 5.

¹⁸⁵⁷ Ex. S-31 at 7 (citing Ex. S-6 at 5)

¹⁸⁵⁸ Order Establishing Procedural Schedule and Rules of Procedure for Hearings at P 39 (November 6, 2014).

520. The parties filed the Final Joint Statement of Issues on May 22, 2015. The undersigned finds that the Joint Statement of Issues fairly addresses the issues in this case. EMCOS', Staff's and NETOs' initial and reply briefs follow the Final Joint Statement of Issues. CAPs' initial and reply briefs do not track the Final Joint Statement of Issues. The undersigned has attempted to restructure CAPs' arguments to parallel the Final Joint Statement of Issues.

1.1 What is the applicable burden of proof?

521. All parties agree that, pursuant to section 206 of the FPA, 16 U.S.C. § 824e, CAPs, EMCOS, and Staff (together, Participants) must show by a preponderance of the evidence that the existing base ROE is unjust and unreasonable for each of the periods at issue.¹⁸⁵⁹ All parties further agree that once that initial burden is met, the Commission must then establish a just and reasonable substitute for each invalidated ROE.¹⁸⁶⁰

A. Participants

522. Participants contend that Opinion No. 531 and subsequent Commission precedent make it clear that Opinion No. 531's anomalous market condition findings were limited to the record in *that* proceeding. Participants further contend that NETOs have the burden to show whether anomalous market conditions affect the DCF inputs on a case-by-case basis.¹⁸⁶¹

523. Staff cites Opinion No. 531 for the proposition that "showing the existing base ROE established in the prior case is unjust and unreasonable merely requires showing that the Commission's ROE methodology now produces a numerical value below the existing numerical value."¹⁸⁶² Staff argues that, at best, NETOs' claim of anomalous market conditions may be raised at the second section 206 step – determining what new rate is just and reasonable.

524. CAPs and EMCOS argue that although Opinion No. 531 recognized that anomalous market conditions *could* impact the reliability of the DCF results, the Commission has made it clear that any party advocating deviation from Commission precedent favoring use of the midpoint of the DCF range of reasonableness as the just

¹⁸⁵⁹ Staff IB at 6; CAPs IB at 4; EMCOS IB at 5; NETOs IB at 8 (citing 16 U.S.C. § 824e (2012) and Opinion No. 531-B, 150 FERC ¶ 61,165 at P 29).

¹⁸⁶⁰ Staff RB at 13 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 29); CAPs IB at 4 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 50-54 and Opinion No. 531-B at, 150 FERC ¶ 61,165 PP 21-35); EMCOS IB at 6-7 (citing *FirstEnergy Serv. Co. v. FERC*, 758 F.3d 346, 353 (D.C. Cir. 2014)); NETOs IB at 8. .

¹⁸⁶¹ EMCOS IB at 10 (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 142).

¹⁸⁶² Staff IB at 6 (quoting Opinion No. 531-B, 150 FERC ¶ 61,165 at P 32).

and reasonable ROE bears a heavy burden of supporting the deviation.¹⁸⁶³ Complainants assert that NETOs, as the parties advocating the placement of their Base ROE above the midpoint, bear the burden of establishing the existence of the capital market conditions that justify such a departure from the Commission's decisional norm.¹⁸⁶⁴

B. NETOs

525. NETOs assert that there are numerous issues that have to be addressed in determining whether the existing ROEs are unjust and unreasonable, one of which is whether current market conditions are anomalous. NETOs disagree with Staff's assertion that NETOs are barred from raising this issue in defending against Staff's allegation that the existing rate is unjust and unreasonable, and can only raise it (if at all) in determining what the new just and reasonable rate is.¹⁸⁶⁵ NETOs assert that Staff offers no statutory basis for this theory, and it is directly at odds with Opinion No. 531-B.¹⁸⁶⁶ NETOs contend that, in Opinion No. 531-B, the Commission ruled that "[o]ur ROE analysis showing that the NETOs' base ROE is 10.57 percent demonstrates both that their 11.14 percent ROE is unjust and unreasonable and that 10.57 percent is the NETOs' just and reasonable replacement base ROE [footnote omitted]. Thus we met both burdens under section 206."¹⁸⁶⁷ NETOs assert that the Commission's adoption of a 10.57% ROE in Opinion No. 531-B took into account anomalous market conditions.

C. Findings and Conclusions

(i) The burden of showing that current ROE is unjust and unreasonable lies with complainants. The burden of establishing a new just and reasonable ROE then shifts to the Commission.

526. The undersigned finds that in Opinion No. 531, the Commission "affirmed the Presiding Judge's determination on the burden of proof,"¹⁸⁶⁸ explaining that under FPA section 206 the burden to show that a rate is unjust and unreasonable 'shall be on the Commission or the complainant,'¹⁸⁶⁹ and, in the context of an ROE proceeding, the burden entails finding that the existing ROE is not 'commensurate with returns on

¹⁸⁶³ EMCOS IB at 8 (citing Opinion No. 531-B, 150 FERC ¶ 61,165, at 62,155 (Commissioner Honorable concurring); CAPs IB at 5 (citing *Entergy Ark., Inc.*, Initial Decision, 151 FERC ¶ 63,008 at P 91 (2015)).

¹⁸⁶⁴ *Id.* at 9; Staff RB at 13.

¹⁸⁶⁵ NETOs RB at 2 (citing Staff IB at 6-7).

¹⁸⁶⁶ *Id.*

¹⁸⁶⁷ *Id.* (quoting Opinion No. 531-B, 150 FERC ¶ 61,165 at P 33).

¹⁸⁶⁸ Opinion No. 531, 147 FERC ¶ 61,234 at P 49.

¹⁸⁶⁹ *Id.* at P 50 (quoting 16 U.S.C. § 824e (2012)).

investments in other enterprises having corresponding risks . . . [and] sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.’¹⁸⁷⁰ The Commission explained that to estimate the return necessary to attract equity investors the Commission uses the DCF model; that model identifies a zone of reasonable returns.¹⁸⁷¹ The Commission denied rehearing on the burden of proof.¹⁸⁷²

527. In Opinion No. 531-B, the Commission explained that it uses a “three-step process” to determine the just and reasonable ROE component of the cost of service of a public utility or a group of public utilities.¹⁸⁷³ First, the Commission establishes a proxy group of companies of comparable risk.¹⁸⁷⁴ Second, the Commission performs a DCF analysis of each member of the proxy group in order to determine a “zone of reasonableness,” within which to set a just and reasonable ROE.¹⁸⁷⁵ The Commission clarified that the DCF zone of reasonableness is the range from the lowest proxy member ROE to the highest proxy member ROE.¹⁸⁷⁶ Third, The Commission establishes a just and reasonable ROE at a single point within the DCF zone of reasonableness.¹⁸⁷⁷ The Commission stated: “It follows that showing the existing base ROE established in the prior case is unjust and unreasonable merely requires showing that the Commission’s ROE methodology now produces a numerical value below the existing numerical value.”¹⁸⁷⁸

528. The undersigned finds that the Complainants have the burden of showing that the existing ROE is unjust and unreasonable. In order to meet this burden, Complainants must show that the Commission’s ROE methodology now produces a numerical value below the existing numerical value. If the Complainants convincingly meet this burden, the burden then shifts to the Commission to establish a new just and reasonable ROE. While the Commission carries out its burden, NETOs have the right and consequent burden of proof to establish that an ROE produced by a straight DCF analysis (one in which the midpoint of the zone of reasonableness becomes the ROE) is insufficient to meet the *Hope* and *Bluefield* standards.

(ii) Placement of the base ROE above the midpoint and burden for showing “anomalous market conditions”

¹⁸⁷⁰ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 17 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 50 (quoting *Hope*, 320 U.S. at 603)).

¹⁸⁷¹ *Id.*

¹⁸⁷² *Id.* at P 21.

¹⁸⁷³ *Id.* at P 24.

¹⁸⁷⁴ *Id.*

¹⁸⁷⁵ *Id.*

¹⁸⁷⁶ *Id.*

¹⁸⁷⁷ *Id.*

¹⁸⁷⁸ *Id.* at P 32.

529. The Commission in Opinion No. 531 found that although it typically sets the base ROE for a group of utilities at the midpoint of the zone of reasonableness identified by the DCF methodology, “a mechanical application of the DCF methodology with the use of the midpoint [there] would result in an ROE that does not satisfy the requirements of *Hope* and *Bluefield*.”¹⁸⁷⁹ Therefore, the Commission explained, “based on the record in [Docket No. EL11-66, aka the Complaint I period], including the unusual capital market conditions present, ... the just and reasonable base ROE for the NETOs should be set halfway between the midpoint of the zone of reasonableness and the top of the zone of reasonableness.”¹⁸⁸⁰ The Commission further explained that, as “[p]arties on both sides of the instant ROE issue argue that the unique capital market conditions have impacted the level of equity return the NETOs’ require to meet the capital attraction standards of *Hope* and *Bluefield*,” the Commission was “concerned that capital market conditions in the record are anomalous, thereby making it more difficult to determine the return necessary for public utilities to attract capital.”¹⁸⁸¹ The Commission stated that “[i]n these circumstances, we have less confidence that the midpoint of the zone of reasonableness established in this proceeding accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards.”¹⁸⁸²

530. As a result of the anomalous market conditions reflected in the record of the Complaint I period, and their potential impact on the DCF model, the Commission found it “necessary and reasonable to consider additional record evidence, including evidence of alternative benchmark methodologies and state commission-approved ROEs, to gain insight into the potential impacts of these unusual capital market conditions on the appropriateness of using the [midpoint of the zone of reasonableness identified by the DCF methodology].”¹⁸⁸³ The Commission found that the additional record evidence – specifically NETOs’ risk premium analysis, CAPM analysis, expected earnings analysis, and evidence of state commission-authorized ROEs – supported a finding that an upward adjustment from the midpoint was warranted.¹⁸⁸⁴

531. The Commission clarified that given the undisputed presence of anomalous market conditions, specifically Treasury bond yields as an indicator of current capital market conditions, the Commission had “less confidence that the midpoint of the zone of reasonableness established in the Complaint I proceeding accurately reflected the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards.”¹⁸⁸⁵ The Commission further explained that the record evidence of unusual capital market

¹⁸⁷⁹ Opinion No. 531, 147 FERC ¶ 61,234 at P 142.

¹⁸⁸⁰ *Id.*

¹⁸⁸¹ *Id.* at P 145.

¹⁸⁸² *Id.*

¹⁸⁸³ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 37 (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

¹⁸⁸⁴ Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-150.

¹⁸⁸⁵ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49.

conditions served as an impetus for the Commission's consideration of additional record evidence.¹⁸⁸⁶ The Commission found this consideration to be necessary to evaluate whether, in the Complaint I proceeding, the NETOs' ROE at the midpoint of the zone of reasonableness satisfied the requirements of *Hope* and *Bluefield*.¹⁸⁸⁷ Therefore, the Commission conducted a further analysis by analyzing the additional record evidence, including evidence of alternative benchmark methodologies and state commission-approved ROEs, to gain insight into the potential impacts of the unusual capital market conditions on the appropriateness of using the resulting midpoint.¹⁸⁸⁸ The Commission then used this additional record evidence to corroborate their determination that placement above the midpoint was warranted.¹⁸⁸⁹

532. The undersigned finds that should Staff, CAPs and EMCOS show that an existing ROE is unjust and unreasonable, and the Commission (here, represented by Staff) offers evidence to establish a new just and reasonable ROE, NETOs have the right and consequent burden of proof to establish that an ROE produced by a straight DCF analysis is insufficient to meet the *Hope* and *Bluefield* standards. Consistent with Opinion No. 531 and 531-B, NETOs would have the resultant right to use alternative benchmark methodologies to advance their argument that an ROE above the midpoint of the zone of reasonableness is warranted in order to meet the *Hope* and *Bluefield* capital attraction standards.

1.2 For each of the periods at issue in this proceeding, is either the existing base or the existing maximum ROE unjust or unreasonable?

A. Participants and NETOs

533. Complainants all argue that they have met their burden of proving that NETOs' existing ROEs are unjust and unreasonable for both the Complaint II (December 27, 2012 – March 26, 2014) and the Complaint III (July 30, 2014 –October 30, 2015, and prospectively) periods. However, each of the Complainants' DCF methodologies produce slightly different results, all of which are dramatically different from the results of NETOs' DCF methodology. NETOs in turn argue that the evidence presented by Complainants is deeply flawed and that as a result, Complainants did not meet their burden of proving that the current ROEs for the Complaint II and Complaint III periods are unjust and unreasonable. The DCF results, and associated explanations, are expressed at length in Section 2 of this decision.

¹⁸⁸⁶ *Id.*

¹⁸⁸⁷ *Id.*

¹⁸⁸⁸ *Id.*

¹⁸⁸⁹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-149).

B. Findings and Conclusions

534. The existing RTO-wide ISO-NE base and maximum ROEs are unjust and unreasonable for both the Complaint II and Complaint III periods. As explained in subsequent sections, Complainants have met their burden of showing that “the Commission’s ROE methodology now produces a numerical value below the existing numerical value.”¹⁸⁹⁰

- 1.3 If the NETOs’ existing base ROE is within the zone of reasonableness, can it be found to be unjust or unreasonable?

A. Participants and NETOs

535. The NETOs requested that this issue be placed into the record *solely* to ensure that they have not waived this argument for purposes of the time periods covered by this proceeding; NETOS are not asking the Presiding Judge to reconsider the Commission’s findings.¹⁸⁹¹

536. CAPs did not brief this issue.

537. EMCOS assert that the Commission has repeatedly held that an existing base ROE is not de facto just and reasonable simply because it falls within the zone of reasonableness produced by a DCF analysis.¹⁸⁹² EMCOS argue that there is no legitimate basis for dispute that the NETOs’ existing base ROE can be found unjust and unreasonable, even if it falls within the zone of reasonableness. EMCOS argue that until the Court acts on this issue or the Commission modifies its holdings, the NETOs recognize that Opinion Nos. 531 and 531-B must be followed.

538. Staff cites the Commission’s statement in Opinion No. 531 that the zone of reasonableness produced by a DCF analysis does not create a zone of immunity for a utility’s ROE.¹⁸⁹³ Staff asserts that the existing Complaint II base ROE of 11.14 percent falls outside Staff’s zone of reasonableness; and the existing Complaint III base ROE of

¹⁸⁹⁰ *Id.* at P 32.

¹⁸⁹¹ EMCOS IB at 10.

¹⁸⁹² *Id.* at 18 (see ENE (Environment Northeast), 151 FERC ¶ 61,125, at P 24 n. 63; Opinion No. 531-B, 150 FERC ¶ 61,165, at PP 21-35; Opinion No. 531, 147 FERC ¶ 61,234, at P 51 (“We reject the NETOs’ argument that the Commission does not have the authority under FPA section 206 to change the existing base ROE unless the evidence shows that it is entirely outside the zone of reasonableness”); *Id.* at P 55 (“the zone of reasonableness produced by a DCF analysis does not create a zone of immunity for a utility’s ROE”) (2014)).

¹⁸⁹³ Staff IB at 9.

10.57 percent falls near the upper end of Staff's zone of reasonableness.¹⁸⁹⁴ Staff argues that the existing Complaint III base ROE should not be retained merely because it falls near the upper end of Staff's zone of reasonableness for the Complaint III Period.¹⁸⁹⁵ Staff asserts that there is no Commission precedent according default status to a base ROE because it is within an appropriate zone of reasonableness. Staff cites Opinion No. 531-B where the Commission stated that an existing base ROE is unjust and unreasonable if the Commission's ROE methodology now produces a lower ROE.¹⁸⁹⁶

539. NETOs assert that, notwithstanding the fact that the base ROE was within the DCF zone of reasonableness, Opinion Nos. 531 and 531-B hold that the NETOs' base ROE can be changed in a Section 206 proceeding.¹⁸⁹⁷ They state that this aspect of Opinion Nos. 531 and 531-B is the subject of an appeal pending before the U.S. Court of Appeals for the D.C. Circuit. In that appeal, NETOs will argue that, under Section 206, "existing rates [must] be found to be entirely outside the zone of reasonableness before the agency can dictate their level or form."¹⁸⁹⁸

540. Until the Court acts on this issue or the Commission modifies its holdings, the NETOs recognize that Opinion Nos. 531 and 531-B must be followed.¹⁸⁹⁹ The NETOs have included this issue on the issues list *solely* to ensure that they have not waived this argument for purposes of the time periods covered by this proceeding and are not asking the Presiding Judge to reconsider the Commission's findings.¹⁹⁰⁰ Again, for the same reasons, NETOs ask the Presiding Judge to dismiss summarily the attempts of the EMCOS, CAPs, and Staff to re-litigate numerous issues that the Commission decided in Opinion Nos. 531 and 531-B and in earlier precedent.¹⁹⁰¹

B. Findings and Conclusions

In Opinion No. 531, the Commission rejected NETOs' argument that the Commission does not have the authority under FPA section 206 to change the existing base ROE unless the evidence shows it is entirely outside the zone of reasonableness.¹⁹⁰² The Commission reasoned that not every ROE within the zone of reasonableness is just and reasonable and that the zone of reasonableness identified by the DCF model "is simply

¹⁸⁹⁴ *Id.*, Appendix A.

¹⁸⁹⁵ *Id.* (citing *Bangor Hydro-Electric Co., et al.*, order on reh'g, 122 FERC ¶ 61,038 at PP 12-14 (2008)).

¹⁸⁹⁶ *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 32).

¹⁸⁹⁷ NETOs IB at 10 (see Opinion No. 531, 147 FERC ¶ 61,234 at PP 51-55 and Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 21-35).

¹⁸⁹⁸ *Id.* (see *City of Winnfield v. FERC*, 744 F.2d 871, 875 (D.C. Cir. 1984)).

¹⁸⁹⁹ *Id.*

¹⁹⁰⁰ *Id.*

¹⁹⁰¹ *Id.*

¹⁹⁰² Opinion No. 531, 147 FERC ¶ 61,234 at P 51.

the first step in the determination of a just and reasonable ROE for a group of utilities.”¹⁹⁰³ In accordance with the Commission’s unequivocal holding in Opinion No. 531, the undersigned finds that the zone of reasonableness produced by a DCF analysis does not create a zone of immunity for a utility’s ROE.¹⁹⁰⁴

Judge’s Compilation of ROEs¹⁹⁰⁵

Complaint II – December 27, 2012 through March 26, 2014¹⁹⁰⁶

	Existing	CAPs	EMCOS	NETOs	Staff
Base ROE	10.57% ¹⁹⁰⁷	8.75% (mdn) ¹⁹⁰⁸	8.32% (hyb) ¹⁹⁰⁹	11.14% ¹⁹¹⁰ , or 10.24% ¹⁹¹¹	8.72% ¹⁹¹²
Max ROE	11.74% ¹⁹¹³	10.36% ¹⁹¹⁴	10.38 ¹⁹¹⁵	13.5% ¹⁹¹⁶ , or 11.31% ¹⁹¹⁷	10.39% ¹⁹¹⁸ , or 10.42 ¹⁹¹⁹

Complaint III – July 31, 2014 through October 30, 2015, and prospectively¹⁹²⁰

¹⁹⁰³ *Id.*

¹⁹⁰⁴ *Id.* at P 55.

¹⁹⁰⁵ These tables are merely guides to assist the readers of this decision. They are meant for illustrative purposes only.

¹⁹⁰⁶ See Rehearing Order, 151 FERC ¶ 61,125 at P 10.

¹⁹⁰⁷ See Opinion No. 531-A, 149 FERC ¶ 61,032 at P 12.

¹⁹⁰⁸ CAPs IB at 59 (8.75 percent represents the the median of CAPs’ DCF methodology. CAPs offered numerous other numbers).

¹⁹⁰⁹ See EMCOS IB at 43 (citing Ex. EMC-11 at 12:11-16, 14:20-15:6) (8.32 percent represents the midpoint of the 25th percentile ROE and the midpoint ROE of Dr. Wilson’s zone of reasonableness).

¹⁹¹⁰ NETOs IB at 41 (NETOs assert that continuance of the existing ROE during the Complaint II refund period of 11.14% and a maximum ROE of 13.5% (high end of zone of reasonableness from Opinion No. 489) is supported by the record).

¹⁹¹¹ NETOs IB at 41 (NETOs’ results using their interpretation of the Commission’s DCF methodology used in Opinion No. 531).

¹⁹¹² See Staff IB at 48.

¹⁹¹³ See Opinion No. 531-A, 149 FERC ¶ 61,032 at P 12.

¹⁹¹⁴ See CAPs IB at 60.

¹⁹¹⁵ See EMCOS IB at 45 (citing Ex. EMC-12 at 2).

¹⁹¹⁶ NETOs IB at 41 (NETOs assert that continuance of the existing ROE during the Complaint II refund period of 11.14% and a maximum ROE of 13.5% (high end of zone of reasonableness from Opinion No. 489) is supported by the record).

¹⁹¹⁷ NETOs IB at 41 (NETOs results using the their interpretation of the methodology used in Opinion No. 531).

¹⁹¹⁸ See Staff IB at 48.

¹⁹¹⁹ See Ex. S-33 at Schedule 1.

	Existing	CAPs	EMCOS	NETOs	Staff
Base ROE	10.5%	8.16% (mdn) ¹⁹²¹	8.145% (hyb) ¹⁹²²	11.14% or 10.97% ¹⁹²³ or 10.90% ¹⁹²⁴	8.68% or 8.74% ¹⁹²⁵
Max ROE	11.74%	10.92% ¹⁹²⁶	11.16% ¹⁹²⁷	13.5% or 12.25% ¹⁹²⁸ or 12.19% ¹⁹²⁹	10.92% or 11.15% ¹⁹³⁰

2. ROE for the Refund Period in Docket No. EL13-33 (December 27, 2012 – March 26, 2014)

2.1 DCF Methodology

2.1.1 How should the DCF methodology be applied for that period?

2.1.1.1 Selecting Proxies

A. CAPs

541. CAPs assert that the Commission's proxy criteria seeks to form a proxy group that reasonably represents NETOs' risks.¹⁹³¹ CAPs disagree with Ms. Lapson's contention that creating proxy groups using the Commission's required credit ratings band understate NETOs' risks.¹⁹³² Without identifying the utilities in their briefs, CAPs' witness Dr. Woolridge contends: that two of the "unrated" NETOs, as Ms. Lapson calls them, actually have credit ratings of A and BBB+; that the third "unrated NETO" has a parent and main sibling that likewise have high credit ratings; and that Commission

¹⁹²⁰ See Rehearing Order, 151 FERC ¶ 61,125 at P 7.

¹⁹²¹ See CAPs IB at 59 (citing Ex. CAP- 69) (8.16% represents the median, not the midpoint, of CAPs' DCF analysis).

¹⁹²² EMCOS IB at 53 (citing Ex. EMC-11 at 15:4-6) (8.145% is the midpoint of the 25th percentile ROE and the midpoint ROE of Dr. Wilson's zone of reasonableness).

¹⁹²³ See NETOs IB at 59.

¹⁹²⁴ See Ex. NET-2004.

¹⁹²⁵ See Staff IB at 59.

¹⁹²⁶ See CAPs IB at 60.

¹⁹²⁷ See EMCOS IB at 53-54 (citing Ex. EMC-13 at 2).

¹⁹²⁸ See NETOs IB at 60 (citing Ex. NET-1700 at 7; Ex. NET-1703).

¹⁹²⁹ See Ex. NET-2004.

¹⁹³⁰ See Staff IB at 59.

¹⁹³¹ CAPs IB at 7 (see Opinion No. 531, 147 FERC ¶ 61,234 at P 96 n.184 (quoting *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 699 (D.C. Cir. 2007))).

¹⁹³² *Id.*

policy rejects Ms. Lapson's position.¹⁹³³ CAPs also note that Ms. Lapson acknowledged that her credit ratings testimony failed to account for Standard & Poor's (S&P) recent upgrade of the credit ratings of the four Eversource NETO subsidiaries (raising them from "A-" to "A").¹⁹³⁴

542. CAPs state that, once proxies are found, the resulting distribution is filtered to exclude proxies deemed to be illogically low or high.¹⁹³⁵ CAPs describe the low-side test established by Opinion No. 531 and noted that, in accordance with that test, Dr. Woolridge discarded results that fail to exceed the study-period average of high and low utility bond yields by 100 bp, or that fall within a cluster of low ICOEs straddling the 100 bp limit.¹⁹³⁶

543. CAPs argue that a high-side test also aims to exclude illogical ICOEs. They state that its implementation requires judgement, as the Commission has no updated bright-line standard for high-end exclusions. Relying upon *Va. Elec. & Power Co.*,¹⁹³⁷ CAPs argue that given the relatively large proxy groups available any high ICOE that exceeds its nearest neighbor by more than 100 bp should be excluded in forming any relied-upon midpoint or Top Quarter.¹⁹³⁸

B. EMCOS

544. EMCOS explain that Dr. Wilson's national proxy group includes all utilities covered by Value Line that meet the following criteria: (1) have credit ratings from Standards and Poor's and Moody's that are no more than one notch above or below the NETOs,' which translates to a credit band of S&P ratings ranging from A to BBB- and Moody's ratings from A1 to Baa2;¹⁹³⁹ (2) pay dividends and have neither made nor announced a dividend cut during the study period; (3) have no major merger or spinoff activity during the study period; and (4) have DCF results that satisfy the relevant threshold tests of economic logic.¹⁹⁴⁰ Dr. Wilson presumed that DCF results passed the threshold tests of economic logic if they exceeded corresponding Baa debt costs by at

¹⁹³³ *Id.* (see Exs. CAP-5 at 7, CAP-6 at 7, CAP-19 at 23-24 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 108 n.209), CAP-27, CAP-28, CAP-54 at 9, and CAP-69 at 2).

¹⁹³⁴ *Id.* (citing Tr. 281:12-17 and Tr. 283:21-84:2) (The four Eversource NETO subsidiaries are NSTAR Electric, Connecticut Light and Power, Western Massachusetts Electric, and Public Service Company of New Hampshire).

¹⁹³⁵ *Id.* at 14.

¹⁹³⁶ *Id.* at 14-15 (see Ex. CAP-1 at 32-33).

¹⁹³⁷ *Va. Elec. & Power Co.*, 123 FERC ¶ 61,098, P 61 (2008).

¹⁹³⁸ See Ex. CAP-1 at 33-34.

¹⁹³⁹ EMC-4 at 19-20.

¹⁹⁴⁰ EMCOS IB at 19 (see EMC-4 at 13. See also Opinion No. 531, 147 FERC ¶ 61,234, at P 92).

least 100 basis points.¹⁹⁴¹

C. Staff

545. Staff contends that the Commission has adopted, and Ms. Joe followed, the following screening criterion to ensure that the members of the proxy group are comparable in risk to the target utilities and that the DCF inputs are reliable:

1. Be listed as a U.S. publicly-traded entity on the Value Line Investment Survey for the electric utility sector;
2. Have an investment grade issuer credit rating (ICR) from Standard & Poor's (S&P) and/or Moody's Investment Advisory Service (Moody's) within a comparable risk band that is no more than one notch away from ICRs of the target NETOs;
3. Have a continuous, stable dividend payment history with no dividend cuts or announced dividend cuts during the six-month study period;
4. Not be the subject of announced major merger or acquisition/spin off (M&A) activity during the six-month study period significant enough to distort its stock price, dividends, or short-term growth rate;
5. Have a current, legitimate mean IBES long-term growth rate projection (short-term growth rate for a 3 to 5 year period labelled LTG or long-term growth rate by IBES); and
6. Have a DCF result in accord with Opinion No. 531's two-step DCF methodology that does not fail fundamental tests of economic logic by being unreasonably and illogically too high (high outlier) or too low (low outlier).¹⁹⁴²

546. Staff argues that NETOs' DCF analyses fails to follow Opinion No. 531 and should be rejected for the following reasons: (1) an inappropriate proxy group that fails to exclude unreliable data and proxy group members; (2) an unreliable source of IBES growth rate data; (3) an unprecedented and inappropriate use of unreliable, erratic *Value Line* "Annual Rates" growth rate data which improperly inflate the DCF results; (4) the use of an improper dividend yield methodology which measurably inflates results and directly conflicts with Commission precedent; and (5) the failure to follow the Commission's requirement to use the last six months of the Complaint II period as the

¹⁹⁴¹ EMC-4 at 19.

¹⁹⁴² Staff IB at 11 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 92, 96, 100-102, 106-108, 112, 114, 118, 122-124).

study period.¹⁹⁴³

547. Staff argues that the Presiding Judge should adopt 4.38 percent as the Gross Domestic Product (GDP) long-term growth rate for the Complaint II refund period. Ms. Joe and EMCOS' witness Dr. Wilson employed the long-term growth calculation methodology that the Commission adopted in Opinion No. 531-A, updated for the Complaint II study period, resulting in a long-term growth rate of 4.38 percent.¹⁹⁴⁴ Staff asserts that Dr. Avera and Dr. Woolridge incorrectly used an outdated 4.39 percent long-term growth rate.¹⁹⁴⁵

D. NETOs

548. NETOs state that Dr. Avera developed a proxy group using the five proxy group criteria outlined in Opinion No. 531 and calculated his dividend yields using the method the Commission used in Opinion No. 531.¹⁹⁴⁶

549. NETOs assert that Dr. Avera calculated the growth rate for each company using the two-step method prescribed in Opinion No. 531, using a two-third, one-third weighting of short and long-term growth rates, respectively.¹⁹⁴⁷ For the company-specific growth rate, Dr. Avera used two alternative sources: the IBES EPS growth rates from *Yahoo! Finance* endorsed by the Commission in Opinion No. 531, and the earnings per share growth rates published by Value Line.¹⁹⁴⁸ For the long-term growth rate, Dr. Avera used the average of the same three forecasts of GDP that the Commission relied upon in Opinion No. 531-A.¹⁹⁴⁹ Consistent with Opinion No. 531, Dr. Avera excluded DCF results of 2.54% and 5.14% as unreasonably low.¹⁹⁵⁰

550. NETOs disagree with Dr. Woolridge's methodology, which excludes the highest DCF result from the proxy group if that result exceeds the next highest DCF result by 100 basis points.¹⁹⁵¹ NETOs argue that, in view of the Commission's adoption of a two-stage DCF analysis, the Commission eliminated the high-end outlier test in Opinion No. 531.¹⁹⁵² According to NETOs, the Commission held that, if it was going to continue to apply a high-end outlier test, it would use its traditional test of a 13.3% growth rate and

¹⁹⁴³ *Id.* at 10.

¹⁹⁴⁴ *Id.* at 23 (citing Ex. S-1 at 57, S-3 at 7, and EMC-5 at 3; Opinion No. 531-A, 149 FERC ¶ 61,032 at PP 6, 10).

¹⁹⁴⁵ *Id.* (citing Ex. NET-1315 at 1-3 and CAP-1 at 32).

¹⁹⁴⁶ NETOs IB at 10 (see NET-1300 at 14, 17-18, 22-25).

¹⁹⁴⁷ *Id.* (see NET-1300 at 21).

¹⁹⁴⁸ *Id.* (see NET-1300 at 19-22, 56).

¹⁹⁴⁹ *Id.* (see NET-1300 at 20-21, 56).

¹⁹⁵⁰ *Id.* (see NET-1300 at 22-25; NET-1315 at 1; NET-1316 at 1).

¹⁹⁵¹ CAP-1 at 34.

¹⁹⁵² NETOs IB at 21 (citing Opinion 531, 147 FERC ¶ 61,234 at P 118).

17.7% overall ROE.¹⁹⁵³ NETOs assert that the high-end growth rates and DCF results in this case are not near these values. Moreover, NETOs contend that Dr. Woolridge's test is substantively invalid because the difference between two DCF estimates is unrelated to whether a particular DCF result is a plausible guide to investors' required return.¹⁹⁵⁴ NETOs also argue that the Commission has never required a utility to exclude a proxy group member based on the "gap" between the high-end DCF results.¹⁹⁵⁵

E. Findings and Conclusions

551. In Opinion Nos. 531 and 531-A, the Commission found that the projected long-term growth in gross domestic product (GDP) is the appropriate long-term growth rate to use for the two-step DCF methodology.¹⁹⁵⁶ In Opinion Nos. 531 and 531-A, the Commission based its long-term growth estimate on an average of the GDP growth rates from the Energy Information Administration, Social Security Administration, and IHS Global Insight.¹⁹⁵⁷ As noted above, the Commission defined the refund period for the Complaint II Period as December 26, 2012 through March 26, 2014 and mandated that "the ROE for that particular 15-month refund period should be based on the most recent financial data available during that period, i.e., the last six months of that period."¹⁹⁵⁸

552. The undersigned finds that Staff witness Ms. Joe and EMCOS witness Dr. Wilson correctly used the long-term growth calculation methodology that the Commission adopted in Opinion Nos. 531 and 531-A, updated for the Complaint II study period.¹⁹⁵⁹ This resulted in a long-term growth rate of 4.38 percent.¹⁹⁶⁰ Dr. Woolridge and Dr. Avera incorrectly used an outdated 4.39 percent long-term growth rate because they did not update Dr. Avera's long-term growth rate from the Complaint I Period.¹⁹⁶¹ The undersigned adopts 4.38 percent as the GDP LTGR for the Complaint II refund period.

553. Under the Commission's two-step DCF model of Opinion No. 531, long-term growth for all of the utilities in the proxy group is assumed to converge to that of the

¹⁹⁵³ *Id.*

¹⁹⁵⁴ *Id.* (see NET-1300 at 103-104).

¹⁹⁵⁵ *Id.* (citing *Coakley, Mass. Att'y Gen. v. Bangor Hydro-Elec. Co.*, 139 FERC ¶ 61,090 (2012) (Moeller, Comm'r, dissenting)).

¹⁹⁵⁶ Opinion No. 531 at P 39, n. 67; Opinion No. 531-A, 149 FERC ¶ 61,032 at P 1, 10.

¹⁹⁵⁷ *Id.*; Opinion No. 531-A, 149 FERC ¶ 61,032 at P 6, 10.

¹⁹⁵⁸ Complaint II Hearing Order at P 27 (In its May 14, 2015 Order Denying Rehearing, the Commission clarified that the actual end date for the Complaint II Period is March 26, 2014).

¹⁹⁵⁹ Staff IB at 23 (see Ex. S-3 at 7).

¹⁹⁶⁰ Ex. S-1 at 57, S-3 at 7, and EMC-5 at 3; Opinion No. 531-A, 149 FERC ¶ 61,032 at PP 6, 10.

¹⁹⁶¹ CAP-1 at 32; NET-1304 at 3.

underlying economy.¹⁹⁶² Because this assumption has the effect of significantly moderating the composite growth rate, the Commission noted that “it is unnecessary to screen the proxy group for unsustainable growth rates.”¹⁹⁶³ As a result, the Commission concluded in Opinion No. 531 that a long-term growth rate based on GDP was sustainable and the issue of evaluating high-end values issue was moot in that proceeding.¹⁹⁶⁴

554. The undersigned finds, in following Opinion Nos. 531 and 531-B, that application of the Commission’s two-step DCF methodology makes it unnecessary to screen for unsustainable growth rates. In this proceeding, the controversial growth rate is Otter Tail in Dr. Avera’s Value Line-based DCF methodology. The undersigned finds that further evaluation of that growth rate is not necessary because, as explained below, the undersigned is rejecting Dr. Avera’s Value Line-based DCF methodology in its entirety.

555. Additionally, Dr. Woolridge excludes from his proxy group companies for which the IBES EPS growth rate estimates are based on the view of a single analyst.¹⁹⁶⁵ In Opinion No. 531, the Commission ruled that utilities with one IBES analyst growth rate should be included in the proxy group and stated that it has “never required that there be two or more analysts’ long-term growth rates for a company in order for it to be included in a proxy group.”¹⁹⁶⁶ The Commission found that investors do not place less weight on IBES growth rate estimates that are based on one analyst’s estimate rather than those based on multiple estimates.¹⁹⁶⁷ The Commission rejected this same argument from CAPs in EL11-66. The Commission expressly stated that they have “never required that there be two (or more) analysts’ long-term growth rates for a company in order for it to be included in a proxy group.”¹⁹⁶⁸ The undersigned also finds that CAPS and Staff have not put forth any compelling evidence or legal argument to justify the undersigned to ignore the Commission’s clear prior ruling. Dr. Woolridge’s exclusion of companies with one analysts’ EPS growth rate forecast violates Opinion No. 531. Thus, the undersigned rejects CAPs’ and Staff’s arguments here.

2.1.1.2 Yahoo v. TROD, stale data issue

A. Participants

¹⁹⁶² NETOs RB at 24; Opinion No. 531, 147 FERC ¶ 61,234 at P 118.

¹⁹⁶³ NET-1500 at 62 (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 118).

¹⁹⁶⁴ NET-1500 at 62 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 79).

¹⁹⁶⁵ See CAP-1 at 17, 29.

¹⁹⁶⁶ See Opinion No. 531, 147 FERC ¶ 61,234 at PP 88-91; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 71-73.

¹⁹⁶⁷ *Id.* at P 91.

¹⁹⁶⁸ *Id.* at P 90.

556. EMCOS witness Dr. Wilson sourced his growth rates from *Yahoo! Finance*.¹⁹⁶⁹ EMCOS did not brief an argument for or against rejecting certain *Yahoo!* proxies as stale.

557. CAPs argue that the ICOEs for NETOs' use of Allete, El Paso, Integrys, OGE, and Otter Tail in Ex. NET-1315,¹⁹⁷⁰ and for Allete, Avista, Black Hills, El Paso, and Otter Tail in Ex. NET-1703,¹⁹⁷¹ "incorporate stale EPSGs that IBES had already excluded from its database..."¹⁹⁷² CAPs contend that while the Commission relies on IBES data, Yahoo's republication of stale IBES EPSGs—which IBES itself has excluded—does not meaningfully reflect the then-current investor expectations embedded in study-period stock prices.¹⁹⁷³ CAPs contend that NETOs present ICOEs for Allete, El Paso, Integrys, OGE, and Otter Tail in Ex. NET-1315 at 1, all of which incorporate stale EPSGs that IBES had already excluded from its database, having been left adrift on Yahoo's free website long after the underlying analyst estimate was provided to IBES.¹⁹⁷⁴ For example, CAPs assert that there is no current, forward-looking Otter Tail growth rate, as the last IBES-participating analyst ceased covering Otter Tail in May 2013.¹⁹⁷⁵ CAPs argue that although Opinion No. 531 at P 91 relied on Yahoo's published EPSG for NETO UIL Holdings, the staleness of other estimates found on the same website has now been established in the present record,¹⁹⁷⁶ and admitted even by Dr. Avera.¹⁹⁷⁷ CAPs contend that analyst EPSGs have trended downwards,¹⁹⁷⁸ but stale EPSGs fail to track that downwards trend.¹⁹⁷⁹ CAPs assert that these proxies should be excluded from DCF studies for the periods when they had no current IBES EPSG. CAPs' witness Dr. Woolridge also excluded proxies that had single-analyst EPSGs, though CAPs' briefs left it unclear if and how this may have affected their Complaint II analysis.¹⁹⁸⁰

¹⁹⁶⁹ Ex. EMC-4 at 13,20.

¹⁹⁷⁰ Ex. NET-1315 at 1.

¹⁹⁷¹ CAPs IB at 18 (citing Ex. NET-1703).

¹⁹⁷² *Id.*

¹⁹⁷³ *Id.* (see Exs. CAP-19 at 24-25, CAP-21 at 2, CAP-54 at 10-11; Exs. S-1 at 11, 35-36, 40-55, S-5 at 12-13).

¹⁹⁷⁴ *Id.* (see Ex. S-3 at 5, 12; Ex. S-6 at 6, 10; Ex. S-4 at 21-25).

¹⁹⁷⁵ *Id.* (see Ex. S-3 at 5).

¹⁹⁷⁶ See Exs. S-1 at 11, 35-36, CAP-19 at 24-25, CAP-21 at 1-25, CAP-29, CAP-54 at 10; see also Ex. S-4 at 1 (explaining that an analyst report may be up to 210 days old and still be retained in the official IBES database).

¹⁹⁷⁷ CAPs IB at 18 (see Ex. CAP-21 at 2) (agreeing that for five companies for which Yahoo presented an EPSG as apparently fresh, no unexpired IBES EPSG then existed).

¹⁹⁷⁸ See Exs. CAP-10 and CAP-59; see also Ex. CAP-1 at 49-50 (explaining the meta-study and extracting a summary figure from it); Ex. CAP-54 at 5-6 (updating the explanation and extract).

¹⁹⁷⁹ CAPs IB at 19.

¹⁹⁸⁰ See *Id.* at 20.

558. Similarly, Staff asserts that Dr. Avera's Yahoo growth rates are originally sourced from IBES but they are not consistent with IBES protocols because Yahoo publication protocols demonstrably allow some stale growth rates and significant errors in the data.¹⁹⁸¹ Staff contends that, although the Commission adopted Yahoo as the source of IBES short-term growth rate estimates in Opinion No. 531, substantial evidence documenting stale and inaccurate Yahoo estimates for the Complaint II period in this proceeding support Ms. Joe's use of authentic IBES growth rates published by TROD.

559. Staff argues that Ms. Joe used the most reliable source of growth rate data in her DCF calculations, consistent with the Commission's requirements and its stated preference for IBES growth rate data. Staff asserts that Ms. Joe sourced accurate, up-to-date, analyst growth rates from TROD as of March 31, 2014.¹⁹⁸² According to Staff, TROD adheres to IBES protocols for freshness and accuracy when providing IBES data.¹⁹⁸³ Therefore, Staff argues Ms. Joe's use of IBES growth rate data sourced from TROD ensures that her DCF inputs reflect the most reliable source of IBES data. Staff contends that it also complies with the Commission's requirement that the estimates be taken from a single source in order to ensure that they are internally consistent and reflect a single time period of analysis.¹⁹⁸⁴

560. Staff asserts that Dr. Avera's Yahoo IBES results for the Complaint II period do not support his recommendation to maintain the existing 11.14 percent base ROE reflected in rates unless the Commission takes the unprecedented step of placing the base ROE above the midpoint of the upper half of the zone of reasonableness. Dr. Avera's Yahoo IBES DCF results show a midpoint of 9.17 percent and midpoint of the upper half result of 10.24 percent, both of which are significantly lower than the 11.14 base ROE he recommends.¹⁹⁸⁵ They are also lower than the 10.57 percent base ROE and 11.74 percent maximum ROE approved in Opinion No. 531-A.¹⁹⁸⁶

B. NETOs

561. NETOs assert that Dr. Avera obtained his growth rates from *Yahoo! Finance*.¹⁹⁸⁷ Meanwhile, Dr. Woolridge and Ms. Joe replaced the IBES growth rates from *Yahoo! Finance* with proprietary figures from TROD, asserting that certain IBES data from *Yahoo! Finance* are stale and unreliable.¹⁹⁸⁸ NETOs' argue that the Commission already

¹⁹⁸¹ *Id.* (citing Ex. S-1 at 49-50, 63- 65; S-3 at 5; and CAP-19 at 24-25).

¹⁹⁸² *Id.* at 19 (citing Ex. S-1 at 40-41 and S-3 at 4).

¹⁹⁸³ *Id.* (citing Ex. S-1 at 46-47 and S-4 at 1).

¹⁹⁸⁴ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 72, 76).

¹⁹⁸⁵ *Id.* at 20, n.26 (citing Tr. 848-849).

¹⁹⁸⁶ *Id.* (citing Opinion No. 531-A, 149 FERC ¶ 61,032 at PP 10-11).

¹⁹⁸⁷ NETOs IB at 16.

¹⁹⁸⁸ *Id.* (see CAP-1 at 26-29 and S-1 at 46-55).

rejected Ms. Joe's arguments on this same issue in Opinion No. 531.¹⁹⁸⁹ NETOs assert that the Commission relies upon the growth rates published by *Yahoo! Finance* because it has determined that these published values are relied on by investors.¹⁹⁹⁰ NETOs emphasize that, contrary to Ms. Joe's methodology, there is *no* record evidence that investors place less reliance upon growth rates published by *Yahoo! Finance* that fail to pass the 180-day test.¹⁹⁹¹

562. NETOs highlight that Dr. Woolridge excludes from his proxy group companies for which the IBES EPS growth rate estimates are based on the view of a single analyst.¹⁹⁹² NETOs contend that in Opinion No. 531 the Commission ruled that utilities with one IBES analyst growth rate should be included in the proxy group and that the Commission has "never required that there be two (or more) analysts' long-term growth rates for a company in order for it to be included in a proxy group."¹⁹⁹³ NETOs argue that the Commission also found that investors do not place less weight on IBES growth rate estimates that are based on one analyst's estimate rather than those based on multiple estimates.¹⁹⁹⁴ NETOs argue that CAPs litigated this issue in EL11-66 and are barred from re-litigating it here.¹⁹⁹⁵

563. NETOs contend that Dr. Avera's DCF study using IBES growth rates, as published on *Yahoo! Finance*, is consistent with Opinion No. 531.¹⁹⁹⁶

C. Findings and Conclusions

564. In Opinion No. 531, the Commission specified five proxy group criteria. Those are:¹⁹⁹⁷

- (1) the use of a national group of companies considered electric utilities by Value Line;
- (2) the inclusion of companies with credit ratings no more than one notch above or below the utility or utilities whose rate is at issue;
- (3) the inclusion of companies that pay dividends and have neither made nor announced a dividend cut during the six-month study period;

¹⁹⁸⁹ *Id.*(Opinion No. 531, 147 FERC ¶ 61,234 at PP 88-91).

¹⁹⁹⁰ *Id.*

¹⁹⁹¹ *Id.*

¹⁹⁹² *Id.* at 17 (see CAP-1 at 17, 29).

¹⁹⁹³ *Id.*(citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 88-91).

¹⁹⁹⁴ Opinion No. 531, 150 FERC ¶ 61,165 at P 91.

¹⁹⁹⁵ NETOs IB at 17.

¹⁹⁹⁶ *Id.* at 18 (see NET-1300 at 20).

¹⁹⁹⁷ Opinion No. 531, 150 FERC ¶ 61,165 at P 92.

- (4) the inclusion of companies with no major merger activity during the six-month study period; and
- (5) companies whose DCF results pass threshold tests of economic logic.

565. In this proceeding, Ms. Joe adds a “Freshness” policy as a sixth proxy group criteria. The undersigned finds that the addition of this sixth criterion is without legal support and declines to adopt it.

566. In Opinion No. 531, the Commission stated that “[t]he growth rate used in the DCF model should be the growth rate expected by the market. That growth rate may not necessarily prove to be the correct growth forecast, but the cost of common equity to a regulated enterprise depends upon what the market expects, not upon what ultimately happens.”¹⁹⁹⁸ The Commission further stated that it has long relied on IBES growth projections and that, since 2008, it has sourced those IBES growth projections from *Yahoo! Finance*.¹⁹⁹⁹ The Commission reaffirmed in Opinion No. 531 that there may be more than one valid source of growth rate estimates.²⁰⁰⁰

567. In Complaint I, Staff replaced *Yahoo!* growth estimates with Reuters Estimates Database (RED) growth estimates for the few companies for which it asserted the IBES growth projection only reflected the view of one analyst.²⁰⁰¹ The Commission stated that, as a result, it was not possible to use RED growth estimates for all the companies in the proxy group.²⁰⁰² The Commission found that an alternate source of growth rate data should only be used when that source can be used for the growth projections of all of the proxy group companies.²⁰⁰³

568. In Opinion No. 531, the Commission affirmed the Initial Decision’s (EL11-66) adoption of five-year IBES growth rate data derived from *Yahoo! Finance*. The Commission declined to give credence to Staff’s arguments that IBES growth rate estimates published by *Yahoo! Finance* are unreliable and stale.²⁰⁰⁴ The Commission relies upon the growth rates published by *Yahoo! Finance* because it has determined that these published values are relied on by investors. In Opinion No. 531, the Commission was “not persuaded that investors would place less weight upon that IBES growth rate than the other IBES growth projections in *Yahoo! Finance*,” which Staff recognized was

¹⁹⁹⁸ *Id.* at P 88.

¹⁹⁹⁹ *Id.*

²⁰⁰⁰ *Id.* at P 90.

²⁰⁰¹ *Id.*

²⁰⁰² *Id.*

²⁰⁰³ *Id.*

²⁰⁰⁴ *Id.* at P 81.

a popular website for investors.²⁰⁰⁵

569. The undersigned finds that Dr. Avera's use of the IBES EPS growth rates from *Yahoo! Finance* was in accordance with the Commission's directives in Opinion No. 531 and therefore proper. Moreover, other than Ms. Joe's and Dr. Woolridge's opinions, there is scant record evidence that investors place less reliance upon growth rates published by *Yahoo! Finance* that fail to pass the 180-day test that Ms. Joe attempts to apply.²⁰⁰⁶ However, the undersigned finds that Ms. Joe's and Dr. Woolridge's use of IBES EPS growth rates from TROD is permissible under Opinion No. 531 for two reasons: (1) the Commission reaffirmed in that opinion that there may be more than one valid source of growth rate estimates; and (2) the record evidence presented in this proceeding makes it possible to use TROD growth estimates for all the companies in the proxy group, thus removing the Commission's sole stated reason for not using a non-*Yahoo! Finance* publication of IBES data in Complaint I.

2.1.1.3 Dividend Yields and Complaint II study period

A. Participants

570. Participants state that their calculation of the dividend yield conforms to the methodology issued by the Commission in Opinion No. 531, while Dr. Avera's dividend yield calculation strays from this policy by using only the dividends from the last month of the six month study period.²⁰⁰⁷ Participants argue that Dr. Avera departed from the Commission policy by changing his spreadsheet design to substitute the last month's dividend level for that of all five prior months.²⁰⁰⁸ CAPs assert that this error inflated the Complaint II Period dividend yields in Ex. NET-1315 for 15 proxies.²⁰⁰⁹ Staff asserts that

²⁰⁰⁵ *Id.* at P 91.

²⁰⁰⁶ *See* NETOs IB at 16.

²⁰⁰⁷ CAPs IB at 8-9; EMC-4 at 12; Staff IB at 23-24; EMCOS IB at 20; NET-1300 at 17-18.

²⁰⁰⁸ CAPs IB at 9 (see Ex. CAP-19 at 26-30).

²⁰⁰⁹ *Id.* at 19.

this error inflated Dr. Avera's dividend yields for 20 proxies.²⁰¹⁰

571. Staff argues that Avera's methodology of using the last month's dividend for all six monthly dividend yield calculations is inconsistent with Opinion No. 531 and therefore improper.²⁰¹¹ Dr. Avera acknowledges that his methodology was inconsistent with Opinion No. 510.²⁰¹² He also admitted that his interpretation of footnote 135 is inconsistent with the methodology explicitly described in the body of paragraph 77.²⁰¹³ His claim that the Commission used the last dividend paid for its dividend yield calculation in the Appendix to Opinion No. 531 is not supported by any statement or reference in the Appendix, but only by his own inference from "reverse engineering" the calculations.²⁰¹⁴

572. Staff contends that Dr. Avera's Complaint II study period is improper.²⁰¹⁵ Staff cites the Complaint III Hearing Order, which requires that "for the refund period covered by Docket No. EL13-33 (i.e., December 27, 2012, through March 27, 2014), the ROE for that particular 15-month refund period should be based on the most recent financial data available during that period, i.e., the last six months of that period."²⁰¹⁶ Staff argues that, contrary to this requirement, Dr. Avera improperly truncated his dividend yield calculation at February 2014.²⁰¹⁷ Consequently, Staff asserts that his study period is one-month short of the March 26, 2014 end-of-study period that the Commission required.

B. NETOs

573. NETOs claim that Dr. Avera correctly calculates the dividend yield using the most recently declared dividend.²⁰¹⁸ They state that this methodology is consistent with the theory underlying the forward-looking DCF method.²⁰¹⁹ While the other parties assert that this is inconsistent with the language in Opinion No. 531, Dr. Avera asserts this language to be ambiguous, and he showed that the Commission's own DCF calculations in Opinion No. 531 used the most recently declared dividend.²⁰²⁰ NETOs assert that this is the same method Dr. Woolridge has used in other proceedings, as have most other state

²⁰¹⁰ Staff IB at 23.

²⁰¹¹ *Id.* at 24.

²⁰¹² *Id.* (citing Tr. 868-869).

²⁰¹³ *See Id.* (citing Tr. at 861).

²⁰¹⁴ *Id.* at 24-25 (citing Tr. 865-866).

²⁰¹⁵ *Id.* at 24.

²⁰¹⁶ *Id.* (citing Complaint III Hearing Order, 149 FERC ¶ 61,156 at P 27; Complaint III Rehearing Order, 151 FERC ¶ 61,125 at P 7 & n.23).

²⁰¹⁷ *Id.* (citing Ex. NET-1300 at 58 and NET-1315 at n.(a)).

²⁰¹⁸ NETOs IB at 19 (see NET-1300 at 17, 56 and Tr. 860:19-24).

²⁰¹⁹ *Id.* (see NET-1500 at 53-54).

²⁰²⁰ *Id.* (citing Tr. 864:1-866:24).

commission witnesses.²⁰²¹ In either event, NETOs contend that this is not a significant issue because it has no effect on the DCF results in Complaint II and only a six basis point impact in Complaint III.²⁰²² In the Order to Reopen Record, the undersigned ordered NETOs to revise their dividend yield calculations so that they would be in compliance with the language of paragraph 77 of Opinion No. 531.²⁰²³ In response, Dr. Avera corrected his dividend yield calculations for both complaint periods.²⁰²⁴

574. NETOs contend that the Commission stated that the ROE for the Complaint II refund period, which ended March 26, 2014, “should be based on the most recent financial data available *during that period*, i.e., the last six months of that period.”²⁰²⁵ Because the dividend yield data used in DCF calculation are ordinarily calculated on a calendar month basis, NETOs argue that this requires the use of dividend yield data for the six months ending February 28, 2014. In other words, since the Complaint II refund period ends on March 26, 2014 the data for the entire month of March, including the data for the period from March 27, 2014 through March 31, 2014, cannot be captured and therefore must be excluded.²⁰²⁶ For this reason, Dr. Avera used the dividend yield data for the six months ending February 28, 2014 along with IBES growth rate data for March 26, 2014, the last day of the refund period.²⁰²⁷ NETOs explain that this is also the same method used in Opinion No. 531: that case used the most recent month-ending dividend yield data (March 2013), in conjunction with the most recent growth rate data available (April 2013).²⁰²⁸

575. NETOs offer that, in contrast to Dr. Avera’s methodology, Ms. Joe and Drs. Woolridge and Wilson improperly used dividend yields for the six months ending March 31, 2014, and obtained their IBES growth rate data on March 31, 2014.²⁰²⁹ In other words, NETOs assert that some of CAPs’, EMCOS’, and Staff’s dividend yield data, and almost all of CAPs’, EMCOS’, and Staff’s growth rate data, post-date the refund period, and are therefore out of period. NETOs contend that this practice violates the directive in the Complaint III Hearing Order that the data be available “during [the refund] period”, and improperly sets the ROE for the Complaint II refund period based partly on data

²⁰²¹ *Id.* (see NET-1918; NET-1919; Tr. 158:19-160:25, Tr. 861:1-14).

²⁰²² *Id.* (citing Tr. 864:11-14, 869:7-9).

²⁰²³ Order to Reopen Record at P 6-14.

²⁰²⁴ NET-2000; NET-2003; NET-2006.

²⁰²⁵ NETOs IB at 20 (citing Complaint III Hearing Order, 149 FERC ¶ 61,156 at P 27 (emphasis added)).

²⁰²⁶ *Id.*

²⁰²⁷ *Id.* (see NET-1315, notes (a) and (d); Tr. 871:12-872:12).

²⁰²⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 75, 88).

²⁰²⁹ *Id.* (citing Tr. 124:15-125:19; S-3 at 4-5; EMC-5 at 1-2 (excluding four companies)).

drawn from outside the refund period.²⁰³⁰

576. NETOs contend that this effectively substitutes March 2014 data for September 2013 data.²⁰³¹ This is not without consequence: utility stock prices in March 2014 were almost uniformly higher than those in September 2013, so the out-of-period data decreased dividend yields.²⁰³² For the 29 utilities for which Ms. Joe calculated dividend yields,²⁰³³ 28 had higher stock prices in March 2014 (S-4 at 169-197, Mar-14 Row, Average) than in September 2013 (NET-1327 at 187-96, Sept. 2013 row, Average).²⁰³⁴

C. Findings and Conclusions

577. In Opinion No. 531, in order to calculate the dividend yields, the Commission:

- 1) Averaged the high and low stock prices for each of the six months in the study period, and he used stock prices as reported by either NASDAQ or the New York Stock Exchange.
- 2) Divided the indicated annual dividend for each of those months by its average stock price for each month to produce a monthly dividend yield for each month in the study period.
- 3) Averaged the monthly dividend yields for each proxy group member to produce an indicated overall dividend yield for the proxy group.²⁰³⁵

578. The Commission stated that “this method is preferable to calculating the estimated dividend yield for each proxy group member based only on the dividend declared in the final month of the period.”²⁰³⁶ The Commission explained that “[u]sing only the dividend declared in the final month results in a mismatch between the stock prices and the dividends used to calculate a firm’s dividend yield.”²⁰³⁷ The Commission warned that “[t]his can result in overstated dividend yields, particularly when a firm raises its dividends or distributions during the six-month study period, because earlier stock prices do not reflect the increased value of the stock resulting from the increased dividend or distribution.”²⁰³⁸

²⁰³⁰ *Id.*

²⁰³¹ *Id.* at n.34.

²⁰³² *Id.*

²⁰³³ Ex. S-4 at 169-197.

²⁰³⁴ NETOs IB at 20, n.34.

²⁰³⁵ Opinion No. 531, 147 FERC ¶ 61,234 at P 77.

²⁰³⁶ *Id.* at P 88.

²⁰³⁷ *Id.*

²⁰³⁸ *Id.*

579. The undersigned finds that Dr. Avera failed to use each month's most recent dividend and consequently Dr. Avera's dividend yield calculation was not in compliance with Opinion No. 531. The undersigned rejects Avera's assertion that the Commission used the last dividend paid for its dividend each month.²⁰³⁹ Dr. Avera's theory that the Commission used the last dividend paid as an input into its dividend yield calculation in the Appendix to Opinion No. 531 is not supported by any reference in the Appendix. The undersigned finds that the inference the expert has made is not reasonable and therefore is not reliable and is not persuasive. The undersigned gives the inference no weight in the deliberative process.

580. Additionally, Staff argues that NETOs' expert Dr. Avera improperly truncated his dividend yield calculation at February 28, 2014.²⁰⁴⁰ Staff asserts that, as a consequence, Avera's study period is one month short of the March 26, 2014 end-of-study period through March 31, 2014. The undersigned disagrees with Staff's position.

581. The Commission stated that the ROE for the Complaint II refund period, which ended March 26, 2014, "should be based on the most recent financial data available *during that period*, i.e., the last six months of that period."²⁰⁴¹ Because the dividend yield data used in DCF calculation are ordinarily calculated on a calendar-month basis, and the Complaint II refund period ended on March 26, 2014, the undersigned finds that without any other guidance one is required to use of dividend yield data for the six months ending February 28, 2014.²⁰⁴² Dr. Avera's dividend yield data encompassed the dates of September 1, 2014 through February 28, 2014, along with IBES growth rate data for March 26, 2014, the last day of the refund period.²⁰⁴³ This is also the same method used in Opinion No. 531: that case used the most recent month-ending dividend yield data, March 2013, in conjunction with the most recent growth rate data available, April 2013.²⁰⁴⁴

582. The undersigned finds that Staff, EMCOS and CAPs' use of dividend yields for the six months ending March 31, 2014 and IBES growth rate data through March 31, 2014 was improper and not in harmony with Opinion Nos. 531 and 531-B, and the Complaint III hearing order.²⁰⁴⁵ In other words, some of their dividend yield data, and almost all of their growth rate data, post-date the refund period. This practice violates the directive in the Complaint III Hearing Order that the data be available "during [the refund] period", and improperly sets the ROE for the Complaint II refund period based in

²⁰³⁹ Tr. 863, 865-866.

²⁰⁴⁰ Ex. NET-1300 at 58 and NET-1315 at n.(a).

²⁰⁴¹ NETOs IB at 20 (citing Complaint III Hearing Order, 149 FERC ¶ 61,156 at P 27) (emphasis added).

²⁰⁴² *Id.*

²⁰⁴³ *Id.* (citing NET-1315, notes (a) and (d); Tr. 871:12-872:12).

²⁰⁴⁴ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 75, 88).

²⁰⁴⁵ See Tr. 124:15-125:19; S-3 at 4-5; EMC-5 at 1-2 (excluding four companies).

part on data drawn from outside that period.

583. Because NETOs improperly calculated the dividend yields and all other participants used out-of-period data, no party properly followed the Commission's clearly stated DCF methodology. The undersigned addressed this deficiency in the Order to Reopen Record.²⁰⁴⁶ After the reopening of the record, NETOs corrected their dividend yield deficiencies²⁰⁴⁷ and Staff corrected its study period deficiencies.²⁰⁴⁸ As a result, NETOs and Staff now both have a DCF methodology run in compliance with paragraphs 77 and 78 of Opinion No. 531.²⁰⁴⁹ On the other hand, CAPs and EMCOS' Complaint II DCF methodologies utilize out-of-period data. Thus, the undersigned rejects CAPs and EMCOS' Complaint II DCF methodologies.

2.1.1.4 M&A and ITC

A. Participants

584. Participants agree that EMCOS cite Opinion No. 531 to show that the Commission's policy is to "eliminate from the proxy group any company engaged in M&A activity significant enough to distort the DCF inputs."²⁰⁵⁰ Participants each excluded firms engaged in M&A activity during the six-month DCF study period.²⁰⁵¹ Staff asserts that applying the Commission's standard, Ms. Joe demonstrated that the following companies were engaged in M&A activities that significantly affected their stock prices, dividend yields, or growth rates during the six-month study Complaint II period: Entergy Corp., ITC Holdings Corp. (ITC Holdings), Northwestern, TECO Energy (TECO), UIL Holdings and UNS Energy.²⁰⁵²

585. CAPs argue that Dr. Avera excluded firms only if he could trace their transaction's specific effect on the DCF inputs.²⁰⁵³ According to CAPs, NETOs test is an unworkable and shifting standard for determining whether a given M&A transaction warrants proxy exclusion.²⁰⁵⁴ CAPs argue that NETOs impose a requirement that a proxy whose stock price movement tracks the broader index may not be excluded from the proxy group due to the M&A screen. CAPs call this a "tracking" or "tracing"

²⁰⁴⁶ Order to Reopen Record at P 4-11, 14.

²⁰⁴⁷ See Ex. NET-2000 at 2-3.

²⁰⁴⁸ See Ex. S-31 at 3-7.

²⁰⁴⁹ Ex. NET-2000 and NET-2001; S-31 and S-33 at 1.

²⁰⁵⁰ CAPs IB at 21; EMCOS IB at 22; Staff IB at 12 (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 114).

²⁰⁵¹ Ex. CAP-1 at 15-16; Ex. CAP-19 at 37-44; Staff IB at 12 (citing Ex. S-1 at 31-36 and S-3 at 1); Ex. EMC-11 at 5.

²⁰⁵² Staff IB at 12 (citing Ex. S-1 at 31-36 and S-3 at 1).

²⁰⁵³ See Ex. NET-1500 at 40-46; Ex. NET-1700 at 4-6.

²⁰⁵⁴ CAPs IB at 21.

requirement. CAPs argue that NETOs use this requirement to improperly add ITC to their Complaint II proxy group.

586. CAPs argue that the Commission often excludes proxies engaged in M&A activity on the ground that the activity *might* affect analyst growth estimates or other DCF inputs, without tracing out whether DCF inputs were actually distorted. They contend that Opinion No. 531 both “affirm[ed] the Presiding Judge’s elimination of Entergy and ITC Holdings from the proxy group due to their ongoing merger activity with each other during the study period,” and *sua sponte* “eliminate[d] CH Energy Group due to its acquisition by Fortis.”²⁰⁵⁵ CAPs cite Opinion No. 531 and the underlying Complaint I Initial Decision²⁰⁵⁶ for the proposition that neither the DCF effects of the Entergy–ITC activity nor those of the CH Energy–Fortis activity were traced in the underlying record or resulting opinions.²⁰⁵⁷ CAPs cite *Tallgrass Transmission, LLC*, to show that the Commission excluded Exelon—without tracing—due to its offer two weeks before the end of the six-month DCF study period to acquire NRG Energy.²⁰⁵⁸ CAPs contend that rather than require tracing, the Commission applied a safeguard, reasoning that if a candidate proxy is engaged in significant M&A activity, the better course is to exclude the proxy than risk having the DCF model distorted by suspect data.²⁰⁵⁹

587. CAPs cite to *Chevron Prods. Co.* to show that Commission precedent provides that if an M&A transaction is significant enough to result in proxy group exclusion, then it continues for at least as long as the transaction remains pending.²⁰⁶⁰ CAPs argue that NETOs’ approach of re-testing M&A activity each time the six-month study window rolls forward is unworkable.²⁰⁶¹ They state that the most significant input to proxy ICOEs is analysts’ estimates of five-year growth. However, according to CAPs, Yahoo does not report when those estimates were made, and thus it is impossible to trace how recent M&A activity may have affected them.²⁰⁶² CAPs state that relative to ITC - the record does not reveal whether the analyst estimates that were averaged to form its Complaint II Period EPSG were prepared before or after ITC abandoned its Entergy transaction.²⁰⁶³ CAPs contend that because analyst estimates stay in the IBES database for 180 days (and can be reposted on Yahoo indefinitely), if M&A activity is significant during one month

²⁰⁵⁵ *Id.* at 21-22 (Opinion No. 531, 147 FERC ¶ 61,234 at P 114 nn.220-21).

²⁰⁵⁶ *Martha Coakley v. Bangor Hydro-Elec. Co.*, EL11 Initial Decision, 144 FERC ¶ 63,012 (2013).

²⁰⁵⁷ CAPs IB at 22.

²⁰⁵⁸ *Id.* (citing *Tallgrass Transmission, LLC*, 150 FERC ¶ 61,224, P 70 (2015)).

²⁰⁵⁹ *Id.*

²⁰⁶⁰ *Id.* at 23 (citing *Chevron Prods. Co. v. SFPP, L.P.*, 127 FERC ¶ 63,024, PP 150-53 (2009), *settled*, 134 FERC ¶ 61,201 (2011)).

²⁰⁶¹ *Id.*

²⁰⁶² *Id.*

²⁰⁶³ *Id.*

and that activity continues, it should be presumed that the IBES consensus growth rate continues to be affected by that same M&A activity for at least 180 days thereafter.²⁰⁶⁴

588. CAPs contend that NETOs' rolling approach to the M&A screen is open to abuse. They argue that under the established approach—where a given M&A transaction has the same screen effect on every contemporaneous study period—parties must say whether they consider a company's transaction to be significant before they know its final updated ICOE.²⁰⁶⁵ CAPs contend that that uncertainty limits the gaming under which parties seeking high ROEs try to exclude low-end values, and vice-versa.²⁰⁶⁶

589. CAPs argue that the question here is whether the Entergy–ITC transaction was a significant one *with the potential* to distort DCF inputs - not whether such distortion has in fact been demonstrated.²⁰⁶⁷ CAPs assert that the Entergy–ITC transaction was significant enough for both Entergy and ITC to be excluded as proxies in: Dr. Avera's Complaint I testimony, the EL11-66 Initial Decision, and Opinion No. 531.²⁰⁶⁸ CAPs argue that the same transaction continued into the Complaint II study period, thus requiring ITC's continued exclusion.²⁰⁶⁹

590. EMCOS argue that the record in this case clearly indicates that ITC Holdings' potential merger with Entergy significantly distorted the DCF inputs. EMCOS state that the six month study period for the Complaint II period extends from October 1, 2013 to March 31, 2014. EMCOS cite the following evidence and argue that it demonstrates conclusively that ITC Holdings' failed merger with Entergy distorted the DCF inputs during the study period of the Complaint II period:²⁰⁷⁰

- On December 6, 2013, S&P raised ITC Holdings' credit rating to A- noting that the proposed merger would “approximately double ITC Holdings' size in terms of asset scale and market capitalization, further diversifying cash flow and broadening the customer base.”²⁰⁷¹
- On December 20, 2013, Value Line projected a 32% earnings increase for ITC Holdings with the elimination of merger related expenses.²⁰⁷²

²⁰⁶⁴ *Id.*

²⁰⁶⁵ *Id.* at 24.

²⁰⁶⁶ *Id.*

²⁰⁶⁷ *Id.* (emphasis added).

²⁰⁶⁸ See Ex. CAP-19 at 38 (reciting NETOs' past testimony); Ex. CAP-130 at 118:6-10 (internal pagination, reproducing that testimony); Opinion No. 531, 147 FERC ¶ 61,234 P 114 n.221.

²⁰⁶⁹ CAPs IB at 24.

²⁰⁷⁰ EMCOS IB at 23.

²⁰⁷¹ Ex. S-4 at 112-113.

²⁰⁷² *Id.* at 120.

- ITC Holdings' stock exhibited merger-related volatility. From October 2013 to December 2013 the stock fell 4.3 percent, likely in anticipation of the merger's failure.²⁰⁷³ However, over the course of the full six month study period ITC Holdings' stock price increased 12.4 percent, nearly twice the 6.6 percent that the S&P 500 increased during the same period.²⁰⁷⁴

591. Staff contends that ITCs' M&A activity significantly affected the company's EPS as well as its Value Line "Annual Rates" EPS projections during the study period.²⁰⁷⁵ Value Line reports for ITC Holdings dated December 20, 2013, and March 21, 2014, support this conclusion, discussing large projected fluctuations in earnings and costs associated with the proposed merger and its ultimate termination during the study period.²⁰⁷⁶

592. Speculative stock price fluctuations for ITC Holdings during the study period also distorted the DCF inputs. Specifically, ITC Holdings' stock price fell 4.3 percent when the ITC-Entergy merger deal appeared likely to fail, between October 2013, and the merger termination announcement in December 2013.²⁰⁷⁷ This contrasts with a 1.9 percent decline in the Dow Jones Utility Average (DJUA), the comparison measure Dr. Avera had used in his testimony, for that period.²⁰⁷⁸ After the termination announcement, the stock price then dramatically increased by 17 percent, in contrast with a mere 9 percent increase in the DJUA.²⁰⁷⁹ Over Ms. Joe's six-month DCF Complaint II study period, ITC Holdings' stock price increased 12.4 percent, while the S&P 500 Index increased only 6.6 percent.²⁰⁸⁰

593. CAPs assert that in prior studies that used an erroneous IBES input, Portland General set the top of its DCF range (after the removal of ITC). CAPs state that Dr. Woolridge's investigation traced its high ICOE to a Deutsche Bank purported EPSG of >20% that had been calculated from an incommensurate baseline and erroneously included in the IBES average.²⁰⁸¹ According to CAPs, Staff's further communications with Thomson Reuters established that the corrected IBES average moved Portland General's ICOE not only lower, but below the range top.²⁰⁸² Staff likewise asserts that

²⁰⁷³ *Id.* at 121.

²⁰⁷⁴ *Id.* at 121-122.

²⁰⁷⁵ Staff IB at 13 (citing Ex. S-1 at 32).

²⁰⁷⁶ Ex. S-4 at 119-120.

²⁰⁷⁷ *Id.* at 121; Tr. 910-912, 914.

²⁰⁷⁸ Tr. 912, 914.

²⁰⁷⁹ Tr. 913-915.

²⁰⁸⁰ Ex. S-1 at 33 and Ex. S-4 at 121-122.

²⁰⁸¹ CAPs IB at 27 (citing Ex. CAP-1 at 55-57).

²⁰⁸² *Id.* (citing Exs. S-1 at 64, CAP-19 at 46-47).

Ms. Joe subsequently verified that the correct IBES growth rate was 6.60 percent.²⁰⁸³

B. NETOs

594. NETOs assert that a company engaged in “major merger activity” during the DCF study period is excluded from the proxy group *if* that activity is “significant enough to distort the DCF inputs.”²⁰⁸⁴ They explain that in *Bangor Hydro-Electric Co.* the Commission rejected the notion that “Commission precedent supports, in every instance, the exclusion from a proxy group of any utility engaged in merger activity.”²⁰⁸⁵ NETOs argue that in that case, the Commission rejected parties’ efforts to exclude Exelon and PSE&G from the proxy group even though they had a pending merger during the DCF analysis period,²⁰⁸⁶ and affirming the presiding judge’s ruling in that case that there had been no distortion of stock prices during that period.²⁰⁸⁷ Similarly, NETOs assert that in Opinion No. 531, the Commission retained Ameren in the proxy group despite its announcement during the DCF analysis period that it was selling its entire generation business to a third party, as well as CenterPoint Energy and OGE Energy Corp., despite their announcement during the DCF analysis period of the formation of a large master limited partnership.²⁰⁸⁸ NETOs argue that in both cases, the Commission found that no party seeking to remove these companies from the proxy group had made the required showing that the companies’ announcements impacted the DCF results by distorting inputs.²⁰⁸⁹

595. NETOs contend that Dr. Avera correctly retained ITC in his proxy group.²⁰⁹⁰ They concede that the merger activity was major when it was first announced, but assert that Dr. Avera found no evidence that the transaction distorted any inputs during the DCF analysis period.²⁰⁹¹

596. NETOs argue that Dr. Avera showed that ITC’s stock price during the six-month DCF analysis period and continuing through March 26, 2014 fell in approximately the same general trading range as other utilities after the termination announcement, and was

²⁰⁸³ Staff IB at 21, n.25.

²⁰⁸⁴ NETOs IB at 11 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 92, 114; *Bangor Hydro-Electric Co.*, 117 FERC ¶ 61,129 at PP 67, 68 (2006) (“Opinion 489”), *order on reh’g*, 122 FERC ¶ 61,265 (2008) (Docket No. ER04-157)). ; NET-1500 at 38-39).

²⁰⁸⁵ *Id.* at 11-12 (citing Opinion No. 489, 117 FERC ¶ 61,129 at P 68 (2006)).

²⁰⁸⁶ Opinion 489, 117 FERC ¶ 61,129 at P 67, 80.

²⁰⁸⁷ NETOs IB at 12 (citing Opinion 489, 117 FERC ¶ 61,129 at P 80).

²⁰⁸⁸ Opinion No. 531, 147 FERC ¶ 61,234 at P 114.

²⁰⁸⁹ Ex. NETOs IB at 12.

²⁰⁹⁰ *Id.* at 13.

²⁰⁹¹ *Id.* (citing NET-1300 at 57-60).

consistent with industry trends.²⁰⁹² NETOs contend that while Ms. Joe perceived a downward trend in ITC's stock price in the October-December 2013 period compared to the S&P 500 index,²⁰⁹³ Ms. Joe made the wrong comparison: ITC's price change over this period was consistent with electric utility industry trends.²⁰⁹⁴ NETOs' offer that a more likely cause of the stock price change that Ms. Joe observed was the filing of a Section 206 complaint against the MISO transmission owners (of which ITC is one), and that the filing raised concerns among equity analysts.²⁰⁹⁵

597. NETOs claim that Dr. Woolridge contradicted himself in attempting to show that the announcement that the transaction was rejected by the Mississippi PSC caused a deviation in ITCs' stock price, while at the same time conceding that the Mississippi PSC's anticipated rejection of the deal on December 10th had already been "baked in" to the stock price.²⁰⁹⁶ NETOs object to Ms. Joe's argument that ITC's historical earnings were impacted by transaction-related expenses.²⁰⁹⁷ NETOs contend that it was improper for Ms. Joe to take this stance and exclude ITC and also include PG&E in her proxy group without comment, despite the fact that PG&E was facing billions of dollars in fines.²⁰⁹⁸ NETOs argue there is no distortion of the DCF inputs associated with ITC's terminated transaction with Entergy; they believe ITC should be included in the Complaint II proxy group.²⁰⁹⁹

C. Findings and Conclusions

598. In Opinion No. 531, Complaint I, the Commission eliminated Entergy and ITC Holdings from the proxy group due to the utilities' *ongoing* merger activity during the study period.²¹⁰⁰ ITC was eliminated due to its proposed acquisition of the entire transmission assets of Entergy Corporation.²¹⁰¹ Here, a major point of disagreement between Dr. Avera and the other expert witnesses is whether ITC Holdings should be included in the proxy group in the Complaint period II. Applying the Commission's standard, Staff witness Ms. Joe demonstrated that the following companies were engaged in M&A activities that significantly affected their stock prices, dividend yields, or growth rates during the six-month study Complaint II period: Entergy Corp., ITC Holdings Corp.

²⁰⁹² NET-1300 at 59.

²⁰⁹³ S-1 at 62.

²⁰⁹⁴ NETOs IB at 13 (citing Tr. 909:11-20).

²⁰⁹⁵ *Id.* (citing NET-1500 at 43-45).

²⁰⁹⁶ *Id.* at 14.

²⁰⁹⁷ *Id.* at 15.

²⁰⁹⁸ *Id.*

²⁰⁹⁹ *Id.* at 16.

²¹⁰⁰ Opinion No. 531, 147 FERC ¶ 61,234 at P 114 (emphasis added).

²¹⁰¹ *Id.*

(ITC), Northwestern, TECO Energy (TECO), UIL Holdings and UNS Energy.²¹⁰²

599. Dr. Avera's inclusion of ITC is material because it forms the top of his Yahoo IBES range of reasonableness for the Complaint II Period. Similarly, Participants excluded ITC Holdings due to the continued impact on the DCF inputs during three months of the six-month study period and the four months of Dr. Avera's six month study period.²¹⁰³ Again, in order to avoid capturing out-of-period dividend yield data, Dr. Avera's study period ran for the six months ending on February 28, 2014.²¹⁰⁴ Dr. Avera sourced his IBES growth rate data for March 26, 2014, the last day of the Complaint II refund period.²¹⁰⁵ Because ITC Holdings comprises the top end of Dr. Avera's analysis, ITC Holdings is germane and must be examined. Because the other utilities do not constitute the boundaries of each participant's proxy group, it is unnecessary to address them.

600. The undersigned finds that Participants correctly state that the Commission's practice is to eliminate from the proxy group any company engaged in M&A activity significant enough to distort the DCF inputs. The undersigned finds that ITC Holdings' M&A activity significantly affected the company's EPS projections during the study period.²¹⁰⁶

601. On December 6, 2013, S&P raised ITC Holdings' credit rating to A- noting that the proposed merger would "approximately double ITC Holdings' size in terms of asset scale and market capitalization, further diversifying cash flow and broadening the customer base."²¹⁰⁷ *Value Line* reports for ITC Holdings dated December 20, 2013, and March 21, 2014, discussed large projected fluctuations in earnings and costs associated with the proposed merger and its ultimate termination during the study period.²¹⁰⁸

602. Speculative stock price fluctuations for ITC Holdings during the study period also distorted the DCF inputs. ITC Holdings' stock price fell 4.3 percent when the ITC-Entergy merger deal appeared likely to fail, between October 2013 and the merger termination announcement in December 2013.²¹⁰⁹ This contrasts with a 1.9 percent decline in the Dow Jones Utility Average (DJUA), the comparison measure Dr. Avera had used in his testimony, for that period.²¹¹⁰ After the termination announcement, the

²¹⁰² See Ex. S-1 at 31-36 and S-3 at 1.

²¹⁰³ Staff IB at 12 (see Ex. S-1 at 32-33; Ex. S-3 at 1; Tr. 903-904).

²¹⁰⁴ NET-1315, notes (a) and (d); Tr. 871:12-872:12.

²¹⁰⁵ *Id.*

²¹⁰⁶ Staff IB at 13 (citing Ex. S-1 at 32).

²¹⁰⁷ EMCOS IB at 22 (see S-4 at 112-113).

²¹⁰⁸ Ex. S-4 at 119-120.

²¹⁰⁹ EMCOS IB at 22; Staff IB at 13; Ex. S-4 at 121; Tr. 910-912, 914.

²¹¹⁰ Staff IB at 13 (citing Tr. 912, 914).

stock price increased by 17 percent in contrast with a 9 percent increase in the DJUA.²¹¹¹ Over Ms. Joe's six-month DCF Complaint II study period (the six-month period ending March 31, 2014),²¹¹² ITC Holdings' stock price increased 12.4 percent, while the S&P 500 Index increased only 6.6 percent.²¹¹³

603. The undersigned disagrees with Dr. Avera's claims that the merger activity did not affect the Complaint II IBES EPS growth rates, which Ms. Joe obtained in March 2014, because the merger was terminated in December 2013.²¹¹⁴ The undersigned finds that Dr. Avera's narrow focus on EPS growth rates improperly ignores the Commission's standard for exclusion due to merger and acquisition/spin-off activity. Again, the Commission excludes proxy companies engaged in M&A activity where that activity distorts any one of the three DCF inputs of stock price, dividends, and growth rates.

604. The undersigned further finds that Dr. Avera incorrectly claims that forward-looking growth rates were immunized from the merger termination impact, asserting that *Value Line* December 2013 earnings projections ignored any impacts of the transaction on its forward-looking earnings estimates.²¹¹⁵ The same paragraph in the December 20, 2013 *Value Line* report highlights in bold print, "ITC has incurred significant costs associated with the Entergy deal," and states, "We are including them in our presentation."²¹¹⁶ The report further states that **these costs are not anticipated for 2014, "which is one reason why we look for a 32% earnings increase."**²¹¹⁷ Dr. Avera admitted that halfway through the study period *Value Line* switched its EPS growth estimate solely because of the merger termination in December 2013, and that was one reason for the 32 percent increase in 2014.²¹¹⁸ Dr. Avera also selectively quoted from the *Value Line* March 2014 report, referring only to the statement that the merger had terminated in December 2013, but ignoring *Value Line's* statement detailing merger-related cost changes that it *included* in the report.²¹¹⁹ Dr. Avera agreed that these costs were not inconsequential.²¹²⁰

605. The undersigned finds that Dr. Avera further erred in claiming that Opinion No. 531 requires a "concrete showing" that the transaction results in a distortion of the DCF

²¹¹¹ *Id.*; (citing Tr. 913-915).

²¹¹² Exs. S-1 at 40-41 and S-3 at 4.

²¹¹³ EMCOS IB at 22-23; Staff IB at 13 (see Exs. S-1 at 33 and S-4 at 121-122).

²¹¹⁴ *Id.* at 40-41; Tr. 900.

²¹¹⁵ Ex. NET-1500 at 40 (citing *Value Line Investment Survey* (December 2013)).

²¹¹⁶ Ex. S-4 at 119.

²¹¹⁷ See Ex. S-4 at 119 (emphasis added).

²¹¹⁸ Tr. 905-906.

²¹¹⁹ Ex. Net-1500 at 41; Ex. S-4 at 120.

²¹²⁰ Tr. 906.

inputs.²¹²¹ The Commission has not set such a standard of proof.

606. Dr. Avera presents Figure NET-1, a compressed visual depiction of the ITC Holdings stock price against the DJUA for September 1, 2013 through March 26, 2014. He opined that one should be able to tell by looking at the chart that there is not a big difference in the ITC Holdings stock price changes as compared with the DJUA for the same period.²¹²² However, Dr. Avera was unsure whether he had provided underlying data to support the figures in the chart.²¹²³ He admitted that his chart suffers from some problems because “[y]ou have to kind of eyeball two numbers that are different in ... magnitude.”²¹²⁴ Dr. Avera also conceded that the DJUA used for Figure NET-1 includes water and gas utilities, and only 15 of the 47 *Value Line* electric utilities.²¹²⁵

607. The undersigned finds that Figure NET-1 is successfully rebutted by the actual underlying data which show the marked decline and subsequent rise of the ITC Holdings stock price, which in turn reflected its changed merger fortunes in comparison to the DJUA.²¹²⁶ Dr. Avera admits that the DJUA fell only 1.9 percent between October and December 2013; those were the three months when the merger appeared likely to fail and ultimately was terminated in December 2013. However, ITC Holdings fell 4.3 percent, more than double than the DJUA.²¹²⁷

608. Further, Dr. Avera’s claim that 18 of the 29 companies in Ms. Joe’s proxy group suffered declines during this period is not probative.²¹²⁸ Only five of Ms. Joe’s proxy group companies suffered declines larger than that for ITC Holdings.²¹²⁹ The average stock decline of Staff’s proxy group plus ITC Holdings was 1.3 percent, less than one third of the decline in the ITC Holdings stock for the same period.²¹³⁰ Ultimately, Dr. Avera conceded that ITC Holdings’ stock fluctuated substantially during the six month study period, declining 4.3 percent three months before the merger termination, to a much larger than average increase of 17.4 percent for the three months after the merger termination.²¹³¹

609. Dr. Avera suggests that there is a “more plausible” explanation for the large drop in the ITC Holdings stock price: that it was a response to a complaint filed on November

²¹²¹ NET-1500 at 46.

²¹²² Tr. 906-907.

²¹²³ *Id.*

²¹²⁴ Tr. 907.

²¹²⁵ Tr. 908-909.

²¹²⁶ Staff IB at 16.

²¹²⁷ Ex. NET-1500 at 43-44.

²¹²⁸ Ex. NET-1500 at 44, Ex. NET-1502.

²¹²⁹ Staff IB at 16.

²¹³⁰ Ex. S-22; Tr. 909- 911.

²¹³¹ Tr. 914-915.

13, 2013, challenging the existing regional base ROE applicable to ITC Holdings.²¹³² The undersigned finds that this unsupported theory is defeated by the fact that although that complaint is still pending, ITC Holdings' stock rebounded through 2014 and reached a 52-week high on January 23, 2015.²¹³³ Additionally, NETOs' stance that Dr. Avera's opinion that ITC's stock price change is attributable to a Section 206 complaint against the MISO transmission owners, of which ITC is one, that raised prominent concerns among equity analysts²¹³⁴ is not persuasive as it based upon conjecture. The undersigned finds that NETOs have failed to put forth sufficient probative evidence to establish that the stock price changes were due to "prominent concerns among [unidentified] equity analysts.

610. For the foregoing reasons, the undersigned finds that ITC was engaged in "major merger activity" during the DCF study period and that activity was "significant enough to distort the DCF inputs."²¹³⁵ As such, the undersigned removes ITC from the Complaint II proxy group.

611. With ITC removed, Portland General sets the top of Dr. Avera's proxy group with a cost of equity of 10.69%.²¹³⁶ Thus, Portland General takes on great importance and Staff's and CAPs' arguments regarding its growth rate must be examined.

612. Dr. Woolridge first corrected Portland General's growth rate from 10.89% to 8.03%.²¹³⁷ He said: "The EPSG rate of 10.89% averaged four factors, the highest of which was a factor of 19.48% that was erroneously calculated and averaged in by Reuters, and which should have been excluded. After eliminating this figure, the average for the other three analysts was 8.03%.²¹³⁸ Dr. Avera subsequently used the "corrected" 8.03% figure. Ms. Joe said the following on the subject in her direct testimony:²¹³⁹

IBES staff, through TROD, confirmed to me that the March 2014 IBES mean analyst growth rate estimate of 10.89 percent for Portland General is incorrect and IBES provided the corrected mean analyst growth rate of 6.60 percent for March 2014. I reconfirmed with IBES their corrected March 2014 growth rate of 6.60 percent for Portland General Electric on January 21, 2015.²¹⁴⁰ I believe Dr. Woolridge used his own calculation of 8.03 percent as an estimate for a corrected IBES growth rate for Portland

²¹³² See Staff IB at 16 (citing Ex. NET-1500 at 44-45).

²¹³³ See *Id.* (citing Ex. S-29; Tr. 964-968).

²¹³⁴ NETOs IB at 13 (citing NET-1500 at 43-45 (Figure 3)).

²¹³⁵ See Opinion No. 531, 147 FERC ¶ 61,234 at PP 92, 114.

²¹³⁶ Ex. NET-2001.

²¹³⁷ Ex. CAP-1 at 30.

²¹³⁸ *Id.*, n.24.

²¹³⁹ Ex. S-1 at 64.

²¹⁴⁰ Ex. S-4 at 22-24.

General Electric for the EL13-33 study period.²¹⁴¹ Dr. Avera apparently relied on Dr. Woolridge's calculated 8.03 percent growth rate when Dr. Avera used it in his DCF analysis for the EL13-33 study period, as documented in Exhibit No. NET-1315 at 1, note (d).

613. NETOs did not brief the Portland General growth rate issue. The undersigned finds Staff's arguments regarding Portland General's growth rate to be persuasive. Staff's witness sourced the 6.60 percent growth rate directly from IBES, and the undersigned finds this to be the most accurate IBES figure in the record. When Staff witness Mr. Green thus corrected Portland General's growth rate, it lowered Portland General's cost of equity/DCF result to 9.7 percent.²¹⁴² This change has the effect of lowering Portland General below the top of the zone of reasonableness.²¹⁴³ The undersigned finds that, as a result of ITC's exclusion and from the proxy group and Portland General's corrected growth rate, that Pacific Gas and Electric Company (PG&E), with a cost of equity/DCF result of 10.41 percent, now sets the top of the proxy group and thus the top of the range of reasonableness.

2.1.1.5 Value Line

A. CAPs and Staff

614. CAPs and Staff take issue with NETOs' presentation of DCF studies that use nine-year growth rates from the "annual rates" portion of the Value Line page; they argue that the nine-year period blends the past four years with five future years.²¹⁴⁴ They argue that this is inconsistent with Opinion No. 531 which specifies that "in future public utility cases", "[t]he short-term growth estimate will be based on the five year projections reported by IBES (or a comparable source)."²¹⁴⁵ CAPs argue that the Commission affirmed this ruling on rehearing, rejecting the argument that the first-stage growth rate should be blended with or compared to one derived from Value Line data,²¹⁴⁶ and adopted NETOs' position that *only* IBES data should provide the analyst Earnings Per Share (EPSG) growth rate projections.²¹⁴⁷ CAPs cite to Opinion No. 531 and Opinion Nos. 414, *et seq.* to show that NETOs' reliance on nine-year Value Line growth violates

²¹⁴¹ Ex. CAP-5 at 4.

²¹⁴² S-33 at Schedule 1.

²¹⁴³ *Id.*

²¹⁴⁴ CAPs IB at 10 (see Exs. NET-1315 at 2 and NET-1703 at 2).

²¹⁴⁵ *Id.* at 9 (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 39); Staff IB at 21-22 (citing Ex. CAP-19 at 30-31)).

²¹⁴⁶ Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 76-77.

²¹⁴⁷ CAPs IB at 9-10 (see *Martha Coakley v. Bangor Hydro-Elec. Co.*, 139 FERC ¶ 61,090, P 19 (2012) (Hearing Order)).

Commission precedent in a number of ways.²¹⁴⁸

615. Likewise, Staff asserts that the Commission neither proposed nor addressed use of “Annual Rates” Value Line EPS growth rates in Opinion No. 531.²¹⁴⁹ Staff contends that Dr. Avera’s “Annual Rates” growth rates are not the Commission’s Value Line “sustainable growth rates” and that Dr. Avera is not aware of any proceeding in which the Commission ever used “Annual Rates” Value Line data for EPS growth rates or for the Commission’s br+sv sustainable growth rate calculation.²¹⁵⁰

616. CAPs and Staff contend that NETOs’ reliance on a mechanical Value Line calculation that moves the start of the growth estimation baseline back to 2010 captured the unique growth experienced by Otter Tail’s non-utility construction segment in recovering from the Great Recession.²¹⁵¹ For example, Staff asserts that the March 21, 2014, Otter Tail Value Line sheet shows the baseline was from 2010-2012.²¹⁵² It includes the period in which the Commission found that there were anomalous market conditions in Opinion No. 531.²¹⁵³ CAPs argue that no NETO resembles the Otter Tail of 2010-2012 in having bad construction-industry losses weigh down its recent earnings.²¹⁵⁴ CAPs assert that Otter Tail’s 15% growth rate drives the midpoint of Ex. NET-1315 at 2.²¹⁵⁵

617. CAPs argue that nine-year EPSGs produce outlier results that are distorted upwards from results based on IBES or any comparable source. To demonstrate this, CAPs’ witness Dr. Woolridge adjusted NETOs’ Value Line-based DCF studies to use as their baseline the most recent single year’s earnings (including Value Line’s earnings adjustments). His results are shown at Exs. CAP-31 and CAP-60. CAPs argue that while both witnesses’ Value-Line-based studies have similarly low medians, the high midpoints found by Dr. Avera are an artifact of his use of nine years’ of past and forecast growth rates.²¹⁵⁶ CAPs assert that those midpoints disappear with Dr. Woolridge’s adjustment.

618. For all these reasons, CAPs and Staff argue that NETOs’ Value-Line-based DCF studies add nothing useful, and only obscure the valid indication of equity costs provided by the Opinion No. 531 standard method.²¹⁵⁷

B. NETOs

²¹⁴⁸ *Id.* at 10-14.

²¹⁴⁹ Staff IB at 22 (citing Tr. 848).

²¹⁵⁰ *Id.* (citing Ex. S-19 at 3; Tr. 875-876).

²¹⁵¹ CAPs IB at 12; Staff IB at 22 (citing Ex. CAP-19 at 30-31; Ex. S-20 at 2).

²¹⁵² Staff IB at 22 (citing Tr. 873-874; Ex. NET- 1327 at 258).

²¹⁵³ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

²¹⁵⁴ CAPs IB at 12.

²¹⁵⁵ *Id.*

²¹⁵⁶ *Id.* at 14.

²¹⁵⁷ *Id.*

619. NETOs state that they rely upon the Commission's finding in Opinion No. 531 that "there may be more than one valid source of growth rate estimates,"²¹⁵⁸ as support for Dr. Avera's second set of DCF analyses, using Value Line EPS growth rates.²¹⁵⁹ NETOs state that like his other alternative methodologies, this DCF analysis provides a check on the results produced by Dr. Avera's IBES-based studies.²¹⁶⁰ They further state that the Commission has long relied on Value Line projections as the source for "g=br+sv" growth estimates in ROE proceedings, and the Commission has recognized it as a "widely-followed, independent investor service."²¹⁶¹

620. NETOs explain that Dr. Woolridge criticized the use of Value Line projected EPS growth rates in his testimony because they are based on a multi-year historical base.²¹⁶² According to NETOs, Value Line's convention of normalizing the beginning and end points of the forecast period by reference to data over multiple years is a standard practice followed by financial analysts to reduce any undue influence of a single year's events.²¹⁶³ They characterize this Value Line data as a "forward-looking projection, from a normalized base."²¹⁶⁴ NETOs argue that the use of Value Line EPS growth rates also address Dr. Woolridge's and Ms. Joe's concerns about *Yahoo! Finance* data by showing that the *Yahoo! Finance* EPS growth forecasts are, if anything, understated.²¹⁶⁵

C. Findings and Conclusions

621. As CAPs point out, the Commission stated in Opinion No. 531 that "in future public utility cases" "[t]he short-term growth estimate will be based on the five-year projections reported by IBES (or a comparable source)."²¹⁶⁶ Affirming the ruling on rehearing, the Commission rejected the argument that the first-stage growth rate should be blended with or compared to one derived from Value Line data²¹⁶⁷ and adopted NETOs' position that only IBES data should provide the EPSG.²¹⁶⁸

622. The undersigned rejects NETOs' alternative DCF analyses based on EPS growth rates from the "Annual rates" box in *Value Line Investment Survey*.²¹⁶⁹ The Commission

²¹⁵⁸ Opinion No. 531, 147 FERC ¶ 61,234 at P 90.

²¹⁵⁹ NETOs IB at 18 (see NET-1300 at 21-22; 97-101; NET-1500 at 58-61).

²¹⁶⁰ *Id.*

²¹⁶¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 25, 102; Opinion 531-B, 150 FERC ¶ 61,165 at P 72 n.145; Tr. 848:6-18).

²¹⁶² *Id.* (see CAP-19 at 30).

²¹⁶³ *Id.* (citing Tr. 601:16-22, 610:24-611:7, 874:22-875:2; CAP-20 at 55:2-6).

²¹⁶⁴ *Id.* (citing Tr. 887:5-13; S-20).

²¹⁶⁵ NETOs IB at 18 (see NET-1300 at 97-101).

²¹⁶⁶ See CAPs IB at 9 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 39).

²¹⁶⁷ See Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 76-77.

²¹⁶⁸ See Hearing Order, 139 FERC ¶ 61,090 at P 19.

²¹⁶⁹ See Ex. NET-1300 at 21-22, 97-101, NET-1315 at 1 n.(d) and 2 n.(d), and

neither proposed nor addressed use of these growth rates in Opinion No. 531. NETOs have not made a persuasive argument to support their proposal to deviate from the Commission's methodology issued in Opinion No. 531.

2.1.2 What array and range of DCF results should be considered in reviewing the ROE for that period?

A. CAPs

623. CAPs argue that the median provides the most representative and reliable single-point distillation of the information provided by the dozens of retained ICOEs.²¹⁷⁰ CAPs claim that empirical studies show that the median is statistically more reliable than the midpoint.²¹⁷¹ CAPs assert that a median placement of the Base ROE is consistent with the Commission's policy allowing the Base ROE to be set anywhere within the DCF range.²¹⁷² CAPs state that the Commission's usual policy of referencing the median was recently judicially affirmed in *S. Cal. Edison Co. v. FERC*.²¹⁷³ According to CAPs, the exception made to apply the midpoint in two RTO-wide cases involved small proxy groups was confined to the RTO's region.²¹⁷⁴ CAPs argue that the facts in this proceeding are distinguishable because the proxy group includes dozens of nation-wide proxies, spans a risk band broader than the subject transmission owners, and the proxies in those cases were not yet receiving incentive ROE adders.²¹⁷⁵

624. CAPs brief did not address a suggested zone of reasonableness. For the Complaint II Period, CAPs argue that the cost of equity is the 8.75% median of Ex. CAP-57.²¹⁷⁶ While their unbriefed array points to a midpoint ROE of 8.69%, CAPs stands by its "principled" support for reliance on medians even though the midpoint is slightly lower than the median (8.75%) in this instance.²¹⁷⁷

625. CAPs assert that alternative remedies could be considered if reducing the Base ROE to that cost-based level is deemed too large a reduction to undertake all at once.²¹⁷⁸ In that case, they state that the base ROE could be set at the 60th Percentile (8.81%, and thus generally equivalent to the midpoint, but without the statistical illogic of reliance on

NET-1327 at 196-A; Tr. 847-848.

²¹⁷⁰ CAPs IB at 16.

²¹⁷¹ *Id.* at 16-17.

²¹⁷² *Id.* at 17 (Opinion No. 531, 147 FERC ¶ 61,234 at P 151, n.306).

²¹⁷³ *Id.* (see *S. Cal. Edison Co. v. FERC*, 717 F.3d 177, 181-87 (D.C. Cir. 2013)).

²¹⁷⁴ *Id.* (see *Pub. Serv. Comm'n of Ky. v. FERC*, 397 F.3d 1004, 1008 (D.C. Cir. 2005)).

²¹⁷⁵ *Id.*

²¹⁷⁶ *Id.* at 59.

²¹⁷⁷ *Id.*

²¹⁷⁸ *Id.*

midpoints), or at the 75th Percentile (9.19%).²¹⁷⁹ Alternatively, CAPs argue that the cost-based DCF median could be leavened with the average of recent state commission ROE decisions, thus yielding a Base ROE of 9.07% that would be symmetrically stabilized against future ROE increases, if and when future DCF results come to exceed the lagging indicator provided by state commission ROE decisions.²¹⁸⁰

B. EMCOS

626. Resting upon Dr. Wilson's DCF analysis, EMCOS contend that the appropriate zone of reasonableness for the Complaint II Period is 7.07 percent to 10.38%.²¹⁸¹ In undertaking his DCF analysis, Dr. Wilson eliminated the following companies from his proxy group:²¹⁸²

- Entergy Corp., First Energy, Pepco Holdings, PNM Resources, PPL Corp., Scana Corp., and TECO Energy for having Moody's ratings of less than Baa2 which placed them outside of the appropriate credit ratings band;²¹⁸³
- UNS Energy and ITC Holdings Corp. for being engaged in merger activity during the study period;²¹⁸⁴
- First Energy for having a dividend cut;²¹⁸⁵
- Edison International, Entergy and Exelon for having DCF results within 100 basis points of the Baa debt rate, and therefore for failing to pass the "threshold test of economic logic" used by the Commission to establish a floor on the range of implied costs of equity appropriately includable in a properly constructed proxy group;²¹⁸⁶
- El Paso Electric, Madison Gas and Electric, and Otter Tail Corp. because of a lack of IBES values in or near March 2014.²¹⁸⁷

C. Staff

²¹⁷⁹ *Id.*

²¹⁸⁰ *Id.* (citing Ex. CAP-19 at 147-148).

²¹⁸¹ EMCOS IB at 20 (see EMC-12 at 2).

²¹⁸² *Id.*

²¹⁸³ Ex. EMC-4 at 19-20.

²¹⁸⁴ *Id.* at 20; EMC-11 at 5-15.

²¹⁸⁵ *Id.*

²¹⁸⁶ *Id.*

²¹⁸⁷ *Id.*

627. Paralleling the majority of CAPs' and EMCOS' arguments, Staff argues that the Presiding Judge should adopt Ms. Joe's DCF analysis resulting in a zone of reasonableness of 7.06 percent to 10.39 percent.²¹⁸⁸ Staff claims that Dr. Avera's analyses result in an incorrect, unreasonable array of DCF results and should be rejected due to the improper proxy group and the numerous flaws in his DCF analyses discussed above.²¹⁸⁹

D. NETOs

628. Relying on IBES data, NETOs state that Dr. Avera's application of the DCF methodology resulted in a zone of reasonableness from 7.03% to 11.31%, with a midpoint of 9.17%, and a midpoint of the upper half of the range of 10.24%.²¹⁹⁰ When relying upon Value Line data, they explain that Dr. Avera's application of the DCF methodology resulted in a zone of reasonableness of 6.22% to 15.93%, with a midpoint of 11.08% and a midpoint of the upper half of the range of 13.50%.²¹⁹¹ In conjunction with other evidence discussed below, NETOs argue that these are the array and range of DCF results that should be considered in reviewing the ROE for the Complaint II refund period.²¹⁹²

E. Findings and Conclusions

629. As discussed in the sections above, the undersigned rejects CAPs' and EMCOS' applications of the DCF methodology. The undersigned also rejects Dr. Avera's application and resulting conclusions of the DCF methodology where he used Value Line data in place of IBES data. Further, the undersigned has excluded ITC as a proxy due to merger and acquisition activity and accepts Staff's correction of Portland General's cost of equity. Since Dr. Avera's did not make these changes to his proxy group, the undersigned also rejects Dr. Avera's IBES-based Complaint II proxy group. The undersigned adopts Staff witness Mr. Green's proxy group displayed in Exhibit No. S-33 at Schedule 1, as this is the only proxy group that fully complies with the Commission's DCF methodology. This proxy group has a zone of reasonableness of 7.12 percent to 10.42 percent.²¹⁹³ The midpoint is 8.77 percent and the "Top Quarter" is 9.59 percent.²¹⁹⁴ Exhibit S-33 also refers to a finding of 9.23 percent for the "75th." However, there is no explanatory testimony using that term to refer to the Commission's use of "halfway between the midpoint of the zone of reasonableness and the top of the zone of reasonableness." Upon reopening of the record, the undersigned confined the witnesses

²¹⁸⁸ Exs. S-1 at 9, 24 and S-3 at 4.

²¹⁸⁹ Staff IB at 25.

²¹⁹⁰ NETOs IB at 22 (citing NET-1300 at 6).

²¹⁹¹ *Id.* (citing NET-1300 at 6).

²¹⁹² *Id.*

²¹⁹³ Ex. S-31 at 6; S-33 at Schedule 1.

²¹⁹⁴ *Id.*

to merely re-running their respective calculations; therefore it is not surprising that no explanatory information was provided by Mr. Green using the same terminology that Ms. Joe used when she originally ran her calculations. While Mr. Green does not define the term “Top Quarter,” Ms. Joe, upon whose testimony Mr. Green in large part relies,²¹⁹⁵ defined the term as “halfway between the midpoint and the top of the zone of reasonableness.”²¹⁹⁶ The undersigned finds that the term “Top Quarter” as used in Exhibit No. S-33 refers to the Commission’s term of “halfway between the midpoint of the zone of reasonableness and the top of the zone of reasonableness.” The undersigned finds that Mr. Green’s methodology is consistent with Commission policy, and that his calculations are supported by substantial credible and persuasive evidence. The undersigned hereby adopts said findings and conclusions of Mr. Green.

²¹⁹⁵ See Ex. S-31 at 2-3.

²¹⁹⁶ See, e.g., Ex S-1 at 9, 24, 59.

20160115-5814 FERC PDF (Unofficial) 1/15/2016 12:45:06 PM
 ENE (Environment Northeast), et al.
 Docket Nos. EL13-33-002, et al.

Exhibit No. S-33
 Schedule 1 of 8

Staff DCF Analysis
EL-13-33 Study Period
Six-Month Period Ending February, 2014
With a GDP Growth Rate of 4.38% and a Portland General IBES Growth Rate of 6.6%

Company	Ticker	Growth Rate ("g")				Adjusted Dividend Yield	DCF Result
		6-mos Avg Dividend Yield	IBES growth rate (1)	GDP (2)	Composite		
1 Alliant Energy Corporation	LNT	3.72%	5.40%	4.38%	5.06%	3.81%	8.87%
2 Ameren Corporation	AEE	4.42%	5.00%	4.38%	4.79%	4.52%	9.31%
3 American Electric Power Co. Inc.	AEP	4.29%	4.23%	4.38%	4.28%	4.38%	8.66%
4 Black Hills Corp.	BKH	2.95%	7.00%	4.38%	6.13%	3.04%	9.17%
5 Centerpoint Energy Inc.	CNP	3.59%	3.77%	4.38%	3.97%	3.66%	7.64%
6 Cleco Power LLC	CNL	3.13%	8.00%	4.38%	6.79%	3.23%	10.03%
7 CMS Energy Corporation	CMS	3.82%	6.24%	4.38%	5.62%	3.93%	9.55%
8 Consolidated Edison	ED	4.44%	2.31%	4.38%	3.00%	4.51%	7.51%
9 Dominion Resources Inc.	D	3.56%	6.77%	4.38%	5.97%	3.67%	9.64%
10 DTE Energy Company	DTE	3.88%	5.21%	4.38%	4.93%	3.98%	8.91%
11 Duke Energy Corporation	DUK	4.50%	3.92%	4.38%	4.07%	4.59%	8.66%
12 Edison International	EIX	2.93%	0.95%	4.38%	2.09%	2.96%	5.05%
13 Empire District Electric Co.	EDE	4.51%	3.00%	4.38%	3.46%	4.59%	8.05%
14 Exelon Corporation	EXC	4.32%	-4.80%	4.38%	-1.74%	4.28%	2.54%
15 Great Plains Energy	GXP	3.81%	5.17%	4.38%	4.91%	3.90%	8.81%
16 Hawaiian Electric Industries Inc.	HE	4.82%	4.20%	4.38%	4.26%	4.93%	9.19%
17 IDACORP	IDA	3.24%	4.00%	4.38%	4.13%	3.31%	7.43%
18 Next Era Energy	NEE	3.08%	6.48%	4.38%	5.78%	3.17%	8.95%
19 Northeast Utilities	NU	3.48%	6.28%	4.38%	5.65%	3.58%	9.23%
20 Pacific Gas & Electric Company	PCG	4.40%	6.65%	4.38%	5.89%	4.53%	10.42%
21 Pinnacle West Capital Corp.	PNW	4.13%	4.13%	4.38%	4.21%	4.22%	8.43%
22 Portland General Electric Co.	POR	3.75%	6.60%	4.38%	5.86%	3.85%	9.71%
23 Public Service Enterprise Group Inc.	PEG	4.33%	1.90%	4.38%	2.73%	4.39%	7.12%
24 Sempra Energy	SRE	2.82%	6.28%	4.38%	5.65%	2.90%	8.55%
25 Southern Co.	SO	4.90%	3.55%	4.38%	3.83%	4.99%	8.82%
26 Vectren Corp.	VVC	4.12%	4.50%	4.38%	4.46%	4.21%	8.67%
27 Westar Energy, Inc.	WR	4.26%	2.80%	4.38%	3.33%	4.34%	7.66%
28 Wisconsin Energy Corp.	WEC	3.70%	4.86%	4.38%	4.70%	3.78%	8.48%
29 Xcel Energy Inc.	XEL	3.96%	4.62%	4.38%	4.54%	4.05%	8.59%

Median:	8.81%
Midpoint:	8.77%
75th %	9.23%
Top Quarter	9.59%
Range	7.12%
	10.42%

Moody's "Baa" Public Utility Index Yield Average (3): 5.18%

Low Outlier Cutoff: 1.00%
 6.18%

- (1) Sourced from Exhibit No. NET-1315, Page 1, except the IBES growth rate for Portland General Electric Co., which reflects the corrected IBES growth rate as discussed in Exhibit No. S-1, page 49 and 63 through 65 and Exhibit No. S-4, pages 22 through 24.
 (2) GDP growth rate specified in the Order to Reopen Record and Notice Establishing Prehearing Conference Issued on December 18, 2015 at paragraph 14 (a).
 (3) Sourced from Exhibit No. NET-1316, page 1, item (b).

Support: Exhibit No. S-34, pages 1 through 30.

2.2 Other Information Related to that Period

2.2.1 Should financial models other than the DCF methodology be used in evaluating the NETOs' ROE; if so, what models should be used and how should they be applied?

2.2.1.1 Other Financial Models Should Be Considered

A. NETOs

- (i) NETOs argue that the anomalous market conditions that existed during the Complaint I period in Opinion No. 531 continued unabated during the Complaint II and Complaint III periods

630. Because NETOs bear the burden of proof regarding anomalous market conditions, their arguments are present first. NETOs assert that the Commission's preferred methodology for determining a public utility's ROE is the DCF analysis.²¹⁹⁷ NETOs assert that the *actual* return investors require is unobservable, and the DCF analysis produces only an *estimate* of investors' required returns and the cost of equity capital.²¹⁹⁸ NETOs contend that the Commission's preferred DCF analysis may at times produce results that do not accurately reflect what the methodology attempts to model.²¹⁹⁹ Acknowledging the limitations of the DCF methodology in Opinion No. 531, the Commission concluded that "any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions."²²⁰⁰

631. NETOs cite Opinion Nos. 531 and 531-B to argue that anomalous capital market conditions can distort the results of the DCF analysis and understate the cost of equity estimate the DCF model produces.²²⁰¹ Due to the potential of such conditions to distort DCF results, the Commission determined that it is "necessary and reasonable" to consider additional evidence outside of the DCF model, such as alternative ROE methodologies and state commission-approved ROEs, to find "an appropriate return reflective of capital market conditions."²²⁰²

632. NETOs cite the Commission's determination in Opinion No. 531 that

²¹⁹⁷ NETOs IB at 32 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 41).

²¹⁹⁸ *Id.* (citing Ex. NET-1500 at 5-6; Tr. 475:13-476:3).

²¹⁹⁹ *Id.* (see Opinion No. 531, 147 FERC ¶ 61,234 at P 145 n.286; NET-1600 at 23-24).

²²⁰⁰ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 41).

²²⁰¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 41, 145; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 37; NET-1600 at 24-25).

²²⁰² *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 145, 151).

“anomalous” and “unusual” capital market conditions existed during the period under consideration in Opinion No. 531.²²⁰³ Based on this finding, as well as the results of alternative ROE methodologies and comparisons to state commission-approved ROEs, the Commission set the NETOs’ base ROE halfway between the midpoint of the zone of reasonableness and the top of the zone of reasonableness.²²⁰⁴ NETOs assert that the issue in this proceeding, therefore, is whether capital market conditions have changed sufficiently from those under consideration in Opinion No. 531 such that they are no longer anomalous.²²⁰⁵

633. NETOs contend that the record evidence demonstrates that the anomalous capital market conditions present during the period under consideration in Opinion No. 531 continued and still continue unabated.²²⁰⁶ NETOs argue that Dr. Avera and Ms. Lapson provide substantial evidence that capital market conditions are anomalous and have affected both the Complaint II period and the Complaint III period.

(ii) *NETOs argue that historically low bond yields and interest rates, resulting in significant part from the Federal Reserve’s unprecedented intervention into markets, evince that capital market conditions remain anomalous*

634. NETOs cite to Opinion No. 531 to show that the Commission relied in part on the historically low bond yields as evidence of anomalous capital market conditions during the period under consideration in that opinion.²²⁰⁷ NETOs cite Dr. Avera’s testimony to demonstrate that yields on utility bonds remain at historically low levels for the periods at issue in this case.²²⁰⁸ NETOs also cite Avera’s testimony for the proposition that yields on 10-year U.S. Treasury bonds have remained below 3%,²²⁰⁹ a level which the Commission identified as historically abnormal in Opinion No. 531.²²¹⁰ NETOs quote CAPs witness Dr. Woolridge, who also recognizes that “this is an extraordinarily unusual situation, based on the historical record.”²²¹¹ NETOs assert that the historically low bond yields that demonstrated anomalous capital market conditions in Opinion No. 531 continue to evince anomalous capital market conditions in the Complaint II study

²²⁰³ *Id.* at 33 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 145-52).

²²⁰⁴ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 145-52).

²²⁰⁵ *Id.*

²²⁰⁶ *Id.*

²²⁰⁷ *Id.* at 34 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145 & n.285).

²²⁰⁸ *Id.*

²²⁰⁹ Ex. NET-1300 at 74, n.93; Ex. NET-1402.

²²¹⁰ NETOs IB at 34 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145, n.285).

²²¹¹ *Id.* (citing Tr. 158:10-12).

periods.²²¹²

635. NETOs state that Dr. Avera and Ms. Lapson showed that bond yields during the Complaint II and III DCF study periods were comparable to those during the period under consideration in Opinion No. 531. NETOs cite to Dr. Avera's testimony and exhibits to show that he concludes that six-month average bond yields at the time of the Complaint I study period are comparable to those in the Complaint II and III study periods.²²¹³ NETOs argue that while yields on 10-year Treasury bonds increased slightly between the Complaint I and Complaint III study periods, 30-year Treasury bond yields decreased.²²¹⁴ Looking to interest rates more generally, NETOs state that Ms. Lapson demonstrates that interest rates between the Complaint I evidentiary period and the Complaint II and III refund periods vary little.²²¹⁵ NETOs assert that this evidence quantitatively demonstrates that capital market conditions, as represented by interest rates, are the same as in the Complaint I evidentiary period.²²¹⁶

636. NETOs assert that the Federal Reserve's massive, ongoing, and unprecedented intervention into the markets through its U.S. Treasury bond and mortgage-backed securities purchasing program is a key reason for the continued low interest rate environment.²²¹⁷ NETOs state that the third phase of this program, known as QE3, resulted in the historically unprecedented purchasing of approximately \$1.8 trillion in assets.²²¹⁸ NETOs assert that QE3 purchases took place consistently throughout the entirety of the Complaint II refund period.²²¹⁹ NETOs show that the Federal Reserve's total holdings now amount to over \$4.2 trillion, or 55% of the total amount of such securities in the entire capital market as of November 2008.²²²⁰ NETOs argue that the magnitude, term, and duration of the purchases is unprecedented.²²²¹

637. NETOs contend that the direct result of the Federal Reserve's unprecedented intervention is the suppression of interest rates to very low levels. NETOs note that former Federal Reserve Chairman Ben Bernanke identified that the intended effect of QE3 was to drive down interest rates and corporate bond yields and, more broadly, to

²²¹² *Id.*

²²¹³ *Id.* (citing Ex. NET-1300 at 78-79 & tbl. NET-5; Ex. NET-1500 at 14-15 & tbl.1).

²²¹⁴ *Id.* at 35 (citing Ex. NET-1500 at 14-15 & tbl.1).

²²¹⁵ *Id.* (citing Ex. NET-1400 at 24-25 & tbl. 2; Tr. 963:1-12 (Avera)).

²²¹⁶ *Id.*

²²¹⁷ *Id.* (citing Ex. NET-1300 at 72-73; Ex. NET-1400 at 14-15; Ex. NET-1600 at 9-12; Tr. 433:1-8).

²²¹⁸ *Id.* at 5 (citing Ex. NET-1400 at 14-16).

²²¹⁹ *Id.* (citing Ex. NET-1400 at 15).

²²²⁰ *Id.* (citing Ex. NET-1400 at 14-16; NET-1600 at 8, n.4, 10).

²²²¹ *Id.* (citing Tr. 433:1-8; Ex. NET-1400 at 14).

affect all classes of capital.²²²² NETOs argue that, in the future, as the Federal Reserve reduces and eliminates its balance of securities, it is expected that interest rates will rise and capital markets will move towards normalization.²²²³ NETOs assert that, at the present time, the Federal Reserve continues to hold massive amounts of assets and has not yet begun to reduce its holdings.²²²⁴ NETOs state that the bonds that the Federal Reserve purchased and continues to hold, while reinvesting the redemptive proceeds, remain out of circulation and therefore are reducing supply relative to demand. NETOs argue that such purchases are continuing to suppress interest rates.²²²⁵

(iii) *NETOs argue that Participants' witnesses do not support a conclusion that capital market conditions have changed since Opinion No. 531 or that current conditions are now "normal"*

638. NETOs counter CAPs' and EMCOS' contentions that a low interest rate environment is "the new normal." NETOs argue that the Commission already rejected this argument and found that extremely low interest rates are evidence of market abnormality.²²²⁶ NETOs assert that on multiple occasions the Federal Reserve has spoken of its plans for "policy normalization" and the future actions it plans to take to bring interest rates and market conditions back to normal.²²²⁷ NETOs argue that the Federal Reserve would not repeatedly discuss bringing its policies on influencing markets back to normal if it believed, as Drs. Woolridge and Wilson do, that they are the "new normal."²²²⁸ NETOs assert that the Federal Reserve has not yet begun its process of policy normalization.²²²⁹

639. Regardless of when such action is taken, NETOs state that it is investors' expectations that are important. NETOs explain that forecasts from highly regarded and widely referenced economic and advisory publications show that investors continue to expect interest rates to rise significantly in the near-term future.²²³⁰ These interest rate forecast publications include the same publications that the Commission relies upon for GDP growth forecasts in the DCF model. Because the DCF analysis is ultimately

²²²² *Id.* (citing Ex. NET-1600 at 11).

²²²³ *Id.* (citing Ex. NET-1300 at 77; Ex. NET-1400 at 20-22; Ex. NET-1500 at 25).

²²²⁴ *Id.* at 35-36 (citing Ex. NET-1400 at 17).

²²²⁵ *Id.* at 36 (citing Tr. 437:24-438:6; Ex. NET-1300 at 75-77; Ex. NET-1400 at 16-17; Ex. NET-1600 at 10-11).

²²²⁶ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145 n.286; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49).

²²²⁷ *Id.* (citing Ex. NET-1400 at 20-22; Ex. NET-1906 at 2-4; Ex. NET-1908 at 2).

²²²⁸ *Id.*

²²²⁹ *Id.* (citing Ex. NET-1907 at 1; Ex. NET-1908 at 2, 5; Tr. 963:1-12).

²²³⁰ *Id.* (citing Ex. NET-1300 at 23-24 & tbl. NET-1, 74-75 & fig. NET-4; Ex. NET-1700 at 9-10 & tbl.1).

intended to reflect the required rate of return needed to attract investors going forward, NETOs assert that investor expectations that interest rates and bond yields will increase in the near-term future is particularly relevant when reviewing the DCF results.²²³¹

640. NETOs argue that, even under Dr. Woolridge’s own criteria for anomalous capital market conditions, capital market conditions were anomalous during the Complaint II DCF study period. NETOs state that, although the Commission made no such finding, Dr. Woolridge contends that capital market conditions were anomalous during the period under consideration in Opinion No. 531 because real yields on ten year treasury bonds were negative.²²³² Yet, as Dr. Woolridge acknowledged during cross-examination, real after-tax returns on ten-year Treasury bonds were also negative during the Complaint II DCF study period.²²³³ Thus, NETOs conclude that even the “true anomaly” that Dr. Woolridge describes in his testimony has remained in effect.²²³⁴

641. NETOs assert that Ms. Joe claims that the Commission erred in relying on interest rates to make its finding of anomalous capital market conditions, arguing that the Commission should have focused on equity capital markets.²²³⁵ NETOs explain that in Opinion No. 531 the Commission considered the various arguments of the parties that capital market conditions were not anomalous, including those of Ms. Joe. NETOs point out that the Commission ultimately disagreed with Ms. Joe’s position.²²³⁶ NETOs argue that Ms. Joe’s rejected position cannot be revived by new arguments that could have been made previously.²²³⁷ NETOs cite Dr. Avera’s explanation that the markets for equity and debt capital are not two distinct pools, and the broad economic and financial evidence examined throughout the course of Complaint I applies to both debt and equity capital markets.²²³⁸

642. NETOs disagree with Ms. Joe’s claim that “improvements in electric utility stocks” are evidence that capital market conditions have changed.²²³⁹ They argue that because stock prices as a whole have generally been rising steadily since early 2009, higher stock prices do not constitute a “major change” in capital market conditions since Opinion No. 531 issued.²²⁴⁰ Rather, NETOs contend that higher prices for electric utility stocks are a result of the interest rate anomaly.²²⁴¹ As Ms. Lapson explains, the Federal

²²³¹ *Id.* at 36-37 (citing Ex. NET-1300 at 23-24, 74-75).

²²³² *Id.* at 37.

²²³³ *Id.* (citing Tr. 137:18-23, 143:1-144:6).

²²³⁴ *Id.*

²²³⁵ *Id.* (citing Ex. S-1 at 5, 70, 72, 107).

²²³⁶ *Id.*

²²³⁷ *Id.*

²²³⁸ *Id.* (citing Ex. NET-1500 at 30-32).

²²³⁹ *Id.* (citing Ex. S-1 at 74-75).

²²⁴⁰ *Id.* (citing Ex. NET-1500 at 32-33).

²²⁴¹ *Id.*

Reserve's extraordinary purchases of long-term Treasuries and mortgage-backed securities have caused the yields on such investments to fall to historically low levels, leading long-term investors to move from bonds to dividend-paying utility equities, thereby driving up utility stock prices.²²⁴² NETOs contend that, as the Federal Reserve begins to engage in policy normalization, the artificially-created demand for utility equities will decline.²²⁴³ In the long-term, NETOs argue that investors will exit from utility equities and return to their customary investment sectors, thereby reducing the demand for utility equities which would result in higher dividend yields and lower stock prices.²²⁴⁴ According to NETOs, this phenomenon actually occurred in early 2015, when utility equity prices dropped substantially as a result of short-term increases in bond yields that many investors thought would persist but did not.²²⁴⁵ NETOs conclude that the equity market conditions present during the Complaint II DCF study period are not reliable predictors of investors' long-term expectations.²²⁴⁶

643. NETOs cite Opinion No. 531 to show that the Commission recognized that the DCF model is subject to model risk.²²⁴⁷ NETOs assert that the stock price is the only observable input to the DCF model. NETOs argue that to the extent that transitory conditions related to the Federal Reserve's unprecedented monetary policies impact the DCF model's ability to accurately reflect the return required to secure equity capital for investment in long-lived electric utility transmission assets, the resulting cost of equity estimates will fail the end-result standard under *Hope* and *Bluefield*.²²⁴⁸ According to NETOs, the continued deviation between the results of the DCF model and the alternative benchmark methods applied in Opinion No. 531 demonstrates the ongoing nature of the anomalies recognized by the Commission.²²⁴⁹

(iv) *NETOs argue that the base ROE in this case must be set at a level that accounts for low interest rates' direct effect on the DCF analysis and the Commission's policy of promoting investment in electric transmission*

644. NETOs state that exceedingly low interest rates directly affects the DCF analysis. NETOs cite Opinion No. 531 to show that the Commission uses utility bond interest rates to set the low end of the zone of reasonableness, pursuant to its practice of eliminating

²²⁴² *Id.* at 37-38 (see Ex. NET-1600 at 11-12; see also Tr. 353:13-17, 432:6-436:23, 451:23-452:4).

²²⁴³ *Id.* at 38 (citing Ex. NET-1600 at 16-19).

²²⁴⁴ *Id.* (citing Tr. 451:23-452:4).

²²⁴⁵ *Id.* (citing Ex. NET-1500 at 33; Ex. NET-1600 at 16-18 & fig. 2; S-8).

²²⁴⁶ *Id.* (citing Ex. NET-1600 at 3, 8-9, 16).

²²⁴⁷ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145 & n.286).

²²⁴⁸ *Id.* (citing Ex. NET-1300 at 81; Ex. NET-1500 at 26-27).

²²⁴⁹ *Id.* (citing Ex. NET-1300 at 80; Ex. NET-1500 at 29-30).

low-end outliers that are not at least 100 basis points above the return on utility bonds.²²⁵⁰ NETOs argue that utility bond rates, like other interest rates, have been substantially depressed due to the Federal Reserve's policies, so the low-end value used to determine the ROE zone of reasonableness is skewed substantially downward and the midpoint is therefore understated.²²⁵¹ In addition, NETOs contend that the Commission agreed with Dr. Avera in Opinion No. 531 that the yield premium for equities is higher when interest rates are low,²²⁵² so the Commission's 100 basis point rule suppresses the results of the DCF analysis.²²⁵³

645. NETOs argue that a reduction in base ROE also would undermine the Commission's policy of promoting investment in electric transmission. NETOs state that the allowed base ROE is the key factor investors consider when making decisions about whether to allocate their limited capital resources to electric transmission or elsewhere.²²⁵⁴ NETOs argue that material reductions in transmission ROEs would likely shift capital away from transmission and into less-risky state-regulated utility operations, to projects with higher allowed returns such as natural gas pipelines, or to other industries altogether.²²⁵⁵ NETOs assert that the Commission took significant steps and expended significant effort over the past decade to promote investment in electric transmission.²²⁵⁶ NETOs conclude that substantially reduced ROEs for transmission investment would challenge investors' continued willingness to invest capital in electric transmission and undermine the Commission's policy goals.²²⁵⁷

(v) *Alternate Methodologies*

646. NETOs assert that the Commission, in Opinion No. 531, found it "necessary and reasonable" to consider alternative benchmark methodologies and state commission-approved ROEs.²²⁵⁸ The Commission stated that it "is not constrained to a mechanical application of the DCF methodology where the Commission determines that such an approach will not produce a just and reasonable result,"²²⁵⁹ and that reference to

²²⁵⁰ *Id.* at 39 (see, e.g., Opinion No. 531, 147 FERC ¶ 61,234 at P 122).

²²⁵¹ *Id.* (citing Ex. NET-1300 at 79-80; Ex. NET-1500 at 28-29; NET-1700 at 10-11).

²²⁵² Opinion No. 531, 147 FERC ¶ 61,234 at P 147.

²²⁵³ NETOs IB at 39.

²²⁵⁴ *Id.* (citing Ex. NET-1300 at 69-70; Tr. 491:22-492:11).

²²⁵⁵ *Id.* (citing Ex. NET-1300 at 69-70; Tr. 491:22-492:11).

²²⁵⁶ *Id.* (citing Ex. NET-1300 at 69-70; Ex. NET-1500 at 9-10).

²²⁵⁷ *Id.*

²²⁵⁸ *Id.* at 22 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

²²⁵⁹ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 150.

alternative methodologies could corroborate the reasonableness of the DCF result.²²⁶⁰ NETOs assert that when capital market conditions are outside of the normal range, the Commission has less confidence that the midpoint of the zone of reasonableness established in a DCF analysis accurately reflects the return necessary to satisfy *Hope* and *Bluefield*.²²⁶¹ NETOs assert that the Commission in Opinion Nos. 531 and 531-B determined that the results of alternative ROE benchmarks provide important guidance in evaluating a fair ROE from within the DCF zone of reasonableness.²²⁶² According to NETOs, the application of alternative benchmarks in this case is necessary and “useful in positioning the just-and-reasonable ROE within the zone of reasonableness.”²²⁶³

647. NETOs assert that the same alternative methodologies approved in Opinion No. 531 were applied by Dr. Avera here: the CAPM, electric utility risk premium, and expected earnings methods.²²⁶⁴ Relying on Yahoo! Finance growth rates, NETOs contend that these methodologies show that the midpoint value resulting from the Commission’s two-step DCF method is far below the investors’ required return, and that a just and reasonable ROE is derived from the upper end of the DCF range.²²⁶⁵ NETOs argue that Dr. Avera’s and Ms. Lapson’s examinations of state-allowed ROEs, as approved by Opinion No. 531, further support a finding that the results of the Commission’s two-step DCF method are insufficient in this case.²²⁶⁶ NETOs assert that Dr. Avera and Ms. Lapson use Commission-approved methodologies.

B. Participants

(i) *Participants argue that the anomalous market conditions that existed during the Complaint I period do not exist in the Complaint II or Complaint III periods*

648. Participants argue that the two-step DCF methodology remains the Commission’s “preferred approach to determining an allowed rate of return” for electric

²²⁶⁰ NETOs IB at 22-23 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49, 56, 132).

²²⁶¹ *Id.* at 23 (see Opinion No. 531, 147 FERC ¶ 61,234 at P 145; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 37).

²²⁶² *Id.* (see Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 49, 56; Opinion No. 531, 147 FERC ¶ 61,234 at P 145; Ex. NET- 1500 at 63).

²²⁶³ *Id.* (citing Tr. 691:7-14).

²²⁶⁴ *Id.* (citing Ex. NET-1300 at 7-10, 26-39; NET-1313 to NET-1314; NET-1316 to NET-1320; NET-1500 at 63-81; NET-1503).

²²⁶⁵ *Id.* (see Ex. NET-1300 at 7-10)

²²⁶⁶ *Id.* (see Ex. NET-1300 at 39-54; NET- 1313; NET-1320; NET-1500 at 80-81; NET-1400 at 7-8, 45-54; Ex. NET-1800 at 2-10; Opinion No. 531, 147 FERC ¶ 61,234 at PP 148-50; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 84, 86-88.37).

utilities such as the NETOs.²²⁶⁷ Participants contend that NETOs have not met their burden to show that anomalous market conditions existed during the Complaint II period.²²⁶⁸ Participants assert that in Opinion No. 531-B, it was the “record evidence of unusual capital market conditions” that “served as an impetus for the Commission’s consideration” of “alternative benchmark methodologies and state commission approved ROEs.”²²⁶⁹ Therefore, Participants conclude, the Commission only looks to “alternative” methodologies when the record supports findings both that “anomalous” market conditions exist and that those conditions have affected the accuracy of the DCF methodology in identifying the just and reasonable cost of equity capital.²²⁷⁰

649. Participants assert that the market anomaly finding in Opinion No. 531 was case-specific, based on that particular evidentiary record, and that there is no evidence of anomalous market conditions in the current record.²²⁷¹ CAPs assert that *Entergy Arkansas*,²²⁷² a recent initial decision, found that the capital market conditions that were found to be anomalous in Complaint I had not continued into 2015.²²⁷³

650. Participants argue that NETOs have no difficulty attracting capital under prevailing market conditions.²²⁷⁴ EMCOS argue that the record in this proceeding establishes that “equity markets have roared,” with both the New York Stock Exchange and the NASDAQ moving into “record high” territories.²²⁷⁵ Unemployment dropped to 5.4%²²⁷⁶ and the yield on the thirty-year Treasury bond fell to 3.9% by the end of 2014.²²⁷⁷ EMCOS contend that these current market conditions are very favorable to utilities: the investment community views power utility capital costs as “close to free”²²⁷⁸ and considers 2014 a “banner year for utility stocks.”²²⁷⁹ EMCOS assert that even NETOs’ witness Lapson acknowledges “favorable equity market conditions...prevailed for utilities during the Complaint II and Complaint III Refund Periods and the

²²⁶⁷ CAPs IB at 36-37; EMCOS IB at 23; Staff IB at 26 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 146).

²²⁶⁸ CAPs IB at 36; EMCOS IB at 23; Staff IB at 26.

²²⁶⁹ EMCOS IB at 23 (see Opinion No. 531-B, 150 FERC ¶ 61,165, at P 49).

²²⁷⁰ See, e.g., EMCOS IB at 24 (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 145); CAPs IB at 35 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49); Staff IB at 26.

²²⁷¹ CAPs IB at 36 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 36); EMCOS IB at 24; Staff IB at 26.

²²⁷² 151 FERC ¶ 63,008 at P 91 (2015).

²²⁷³ CAPs IB at 36.

²²⁷⁴ See, e.g., EMCOS IB at 24; Staff IB at 26.

²²⁷⁵ EMCOS IB at 24 (see EMC-4 at 26).

²²⁷⁶ CAP-19 at 2.

²²⁷⁷ Ex. S-1 at 76:2-4.

²²⁷⁸ Ex. S-1 at 108:1-3; Ex. S-4 at 88.

²²⁷⁹ Ex. S-4 at 44-55.

Prospective Period.”²²⁸⁰ Similarly, Staff cites testimony from each party’s witnesses to show that Staff,²²⁸¹ NETOs,²²⁸² CAPs²²⁸³, and EMCOS,²²⁸⁴ all agree that market conditions during the Complaint II period were highly favorable for utilities raising capital.²²⁸⁵ Staff asserts that the performance of utility stocks supports the conclusion that the relevant market conditions are highly favorable for utilities. Staff cites SNL Energy, which declared 2014 a “banner year for utility stocks.”²²⁸⁶ Staff explains that SNL tracks the performance of utility stocks using the RRA Utility Index, which was up 24.3 percent in 2014, outperforming the Dow Jones Industrial Average (up 7.5 percent), the S&P 500 (up 11.4 percent), and the NASDAQ (up 13.4 percent).²²⁸⁷ SNL also reported the highest average price to earnings (P/E) ratios in several years for its RRA Utility Index: “At year-end 2014, the average P/E for the companies in the RRA [Utilities] Index was 18.7x, versus 16.6x at year-end 2013, and 13.4x at year-end 2010.”²²⁸⁸ Staff explains that a P/E of 18.7x means that utility stock is selling at a multiple of 18.7 times earnings.²²⁸⁹ Staff also argues that favorable low interest rates in the debt markets in 2014 allowed many electric utilities to refinance debt and/or issue new debt, further lowering their cost of capital.²²⁹⁰

651. EMCOS argue that NETOs fail to advance any relevant evidence demonstrating current financial market conditions are anomalous in any way that might affect the accuracy of the Commission’s two-step DCF methodology in identifying the cost of equity required to meet the *Hope* and *Bluefield* standards.²²⁹¹ EMCOS contend that a correct application of the Commission’s two-step DCF methodology reliably identifies a just and reasonable Base ROE for the NETOs in this proceeding.²²⁹²

(ii) *NETOs argue that historically low bond yields and interest rates, resulting in significant part from the Federal Reserve’s unprecedented intervention into markets, evince that capital market conditions remain anomalous*

652. CAPs and Staff contend that Opinion Nos. 531 and 531-B only identified one

²²⁸⁰ Ex. NET-1600 at 3.

²²⁸¹ Ex. S-1 at 69-81.

²²⁸² Ex. NET-1600 at 3.

²²⁸³ Ex. CAP-19 at 8.

²²⁸⁴ Ex. EMC-7 at 2-3.

²²⁸⁵ Staff IB at 34.

²²⁸⁶ *Id.* at 35 (citing Ex. S-4 at 44).

²²⁸⁷ *Id.*

²²⁸⁸ *Id.* (citing Ex. S-4 at 45).

²²⁸⁹ *Id.* (citing Ex. S-1 at 75).

²²⁹⁰ *Id.* (citing Ex. S-1 at 75-76).

²²⁹¹ EMCOS IB at 25.

²²⁹² *Id.* at 25.

specific indicator of anomalous financial market conditions: that bond yield interest rates were unusually low but expected to rise significantly in the “near-term,” “once the Federal Reserve’s Quantitative Easing program ends, ‘which may be in the very near future.’”²²⁹³ CAPs argue that the real-world test of how bond yields would respond to the end of the Fed’s Quantitative Easing III (QE3) purchasing program has been run in the present record. CAPs state that NETOs had predicted that following the end of QE3, 10-year Treasury yields would rise to 3.4%–3.9% by mid-2015. CAPs argue that in fact those yields rose modestly while remaining far below their 1965-2008 level.²²⁹⁴ CAPs state that NETOs predicted that over the same period, Baa utility bond yields would rise to 6.4%–7.0%. CAPs argue that in fact they only reached “approximately 4.6%,” right where they were in Opinion No. 531.²²⁹⁵ CAPs contend that the modest Treasury yield rise and utility bond yield stability that occurred as QE3 neared and passed its October 2014 end is significant new information, not present in the Opinion No. 531 record. CAPs assert that this new information precludes a finding that QE3 interest rate suppression continues to undermine confidence in DCF results.²²⁹⁶

653. CAPs argue that the resulting modest rise in Treasury bond yields since the Complaint I study period demonstrates two key facts. First, they claim that any relevant “anomaly” has ended. They cite Dr. Woolridge’s testimony that real yields on Treasury bonds (i.e. inflation-adjusted yields) are a more relevant measure than nominal yields,²²⁹⁷ and identified negative real yields on long-term Treasury bonds as a specific, testable, and atypical capital market conditions differentiating October 2012–March 2013 from the study periods here.²²⁹⁸ Second, CAPs claim that the low level of current long-term Treasury and utility bond yields relative to the levels that prevailed for several decades prior to 2008 reflect durable economic facts rather than a transient consequence of QE3.²²⁹⁹ They argue that even in nominal terms, 10-year Treasury bond yields are above 2%.²³⁰⁰ CAPs also argue that while lower than 1965–2008 yields, these yields are not anomalous. CAPs cite former Federal Reserve Chairman Ben Bernanke: “[l]ow interest rates are not a short-term aberration, but part of a long-term trend.”²³⁰¹ CAPs contend that the unusual inflation of 1965-85 raised interest rates then and for years thereafter, but, over time, they have receded to a level consistent with long-term experience.²³⁰²

²²⁹³ CAPs IB at 37-38 and Staff IB at 28 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 130, 145 n.285; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 49-50).

²²⁹⁴ *Id.* at 38 (see Exs. S-28 at 4, Exs. CAP-19 at 7-10, CAP-23, CAP-24).

²²⁹⁵ *Id.*

²²⁹⁶ *Id.*

²²⁹⁷ Ex. CAP-19 at 11.

²²⁹⁸ CAPs IB at 38-39 (see Ex. CAP-19 at 7-8).

²²⁹⁹ *Id.* at 39.

²³⁰⁰ *Id.* (see Exs. CAP-1 at 46, CAP-54 at 4).

²³⁰¹ *Id.* (see Ex. CAP-19 at 11).

²³⁰² *Id.* (see Ex. CAP-19 at 12; Ex. CAP-23).

654. CAPs attack NETOs' assertion that QE3 continues to distort because, its termination notwithstanding, the Fed still holds the asset balance it thereby acquired.²³⁰³ That asset balance now amounts to over \$4.2 trillion, or 55% of the total amount of such securities in the entire capital market as of November 2008.²³⁰⁴ CAPs cite Dr. Woolridge's testimony that the Fed will continue holding most of that balance beyond the present decade.²³⁰⁵ CAPs conclude that a market condition that extends from 2011 to 2020 or beyond cannot be considered an "anomaly."²³⁰⁶

655. CAPs claim that NETOs lack a coherent theory as to how the Fed's continued asset balance could undermine DCF results.²³⁰⁷ They cite NETOs witnesses to illustrate this point. Dr. Avera has suggested that too few low-end results are being excluded by the bond yield comparison screen. Ms. Lapson claimed that "the Fed's monetary policy operations constitute an anomalous situation,"²³⁰⁸ but conceded at trial that QE3 did not itself constitute an anomaly, calling it "the driving force in creating an anomalous situation."²³⁰⁹ She later hedged further, conceding the possibility of "other causes" of the alleged anomaly,²³¹⁰ and stating that "capital markets are very complex" with "a number of factors moving."²³¹¹ NETOs conclude that Ms. Lapson's testimony left only confusion about whether the Fed's monetary policy "constitutes" anomalous market conditions,²³¹² or "directly result[s]" therein,²³¹³ or "is the largest underlying cause" thereof,²³¹⁴ or has a merely coincidental relationship thereto.²³¹⁵ CAPs argue that this confusion is symptomatic of Ms. Lapson's having conducted no study of how QE3 affected or continues to affect financial markets or the DCF methodology. They contend that Ms. Lapson speculates that QE3 caused some investors to purchase dividend-paying utility equities as a substitute for bonds.²³¹⁶ CAPs cite Dr. Woolridge's exhibits that show that any such investor response was merely a normal feature of efficient capital markets that did not indicate any irrational bubble in utility stock prices, and would not prevent DCF studies from accurately identifying the cost of equity.²³¹⁷

²³⁰³ *Id.* (see Exs. NET-1300 at 76-77, NET-1400 at 17).

²³⁰⁴ Ex. NET-1400 at 14-16; Ex. NET-1600 at 8 n.4, 10.

²³⁰⁵ See Tr. 90:20-22.

²³⁰⁶ CAPs IB at 39.

²³⁰⁷ *Id.* at 40.

²³⁰⁸ Ex. NET-1400 at 22.

²³⁰⁹ Tr. 433:21-22.

²³¹⁰ Tr. 514:12.

²³¹¹ Tr. 423:12-15.

²³¹² Ex. NET-1400 at 22.

²³¹³ Ex. NET-1600 at 2.

²³¹⁴ Tr. 514:17.

²³¹⁵ Tr. 353:8-11.

²³¹⁶ CAPs IB at 40 (see Ex. NET-1600 at 11-12).

²³¹⁷ *Id.* (see Ex. CAP-19 at 12-13).

656. Staff asserts that the NETOs' evidence of anomalous market conditions boils down to two components: (1) the exercise of monetary policy by the Federal Reserve, and (2) the theory that investors expect higher interest rates and/or higher market volatility in the near future.²³¹⁸ Staff argues that both of these components are thinly supported and unconvincing.

657. Staff argues that the mere existence of a certain monetary policy is not proof that the markets are anomalous. Staff cites Ms. Joe's testimony that the Federal Reserve has deployed "unprecedented" monetary policies several times since World War II.²³¹⁹ Staff references a portion of Ms. Joe's testimony that points to historically high interest rates to defeat inflation under Federal Reserve Chairman Paul Volcker as one example of such "unprecedented" monetary policy.²³²⁰ Staff criticizes NETOs' witness Ms. Lapson for not explaining how today's monetary policy compares to Chairman Volcker's monetary policies of the late 1970s and early 1980s.²³²¹ Staff further criticizes Ms. Lapson for not studying any periods outside the Complaint II and Complaint III periods and for not knowing whether any period outside of those periods would qualify as anomalous.²³²²

(iii) *The "New Normal" and Volatility in Markets*

658. CAPs accuse NETOs of wrongly conflating policy with anomalous "markets"²³²³ when NETOs cite a September 2014 release stating that the Fed has not yet "normalize[d]" monetary policy in those regards.²³²⁴ CAPs contend that the anticipated normalization of the Fed's monetary policy does not imply that financial markets for long-term investments are currently abnormal. Further, CAPs disagree that some abnormality precludes reliance upon market information through DCF studies.²³²⁵

659. CAPs argue that NETOs' narrow focus on Fed policy is misdirected.²³²⁶ CAPs recognize that the Fed has a major impact on short-term interest rates, but contend that it has only an attenuated impact on the global equities market that underlies DCF results.²³²⁷ CAPs argue that the economic conditions that drive *equity* markets have changed markedly over the two-plus years that have lapsed between the Complaint I and Complaint III study periods. For example, CAPs reference that the unusually high 8%

²³¹⁸ Staff IB at 27.

²³¹⁹ *Id.* (citing Ex. S-1 at 71).

²³²⁰ *Id.*

²³²¹ *Id.*

²³²² *Id.* (citing Tr. 425, 476).

²³²³ *See* Tr. at 444:24-45:8.

²³²⁴ CAPs IB at 41 (see Ex. NET-1400 at 20-22).

²³²⁵ *Id.*

²³²⁶ *Id.*

²³²⁷ *Id.*

unemployment that persisted for most of 2012 has fallen to 5.4%.²³²⁸ Correspondingly, CAPs state that certain stock market benchmark indexes have reached and held all-time highs. Since January 1, 2014, the DJU index is up 21.3% and the S&P 500 is up 16.31%.²³²⁹

660. Staff cites the Merriam-Webster Online Dictionary to find that “anomalous” is defined as “inconsistent with or deviating from what is usual, normal, or expected.”²³³⁰ Given that definition, Staff contends that there is no basis to find that market conditions during the Complaint II period were anomalous without comparing them to what is usual, normal, or expected.²³³¹

661. Staff asserts that Quantitative Easing ended in October 2014, but interest rates have yet to rise to “normal levels.”²³³² Staff argues that, having been proven wrong regarding their earlier prediction, in this case, NETOs shift their focus from Quantitative Easing to the Federal Reserve’s “massive holdings” of U.S. Treasury bonds and MBS. Staff asserts that the FOMC reaffirmed the appropriateness of the current near-zero federal funds rate as recently as May 20, 2015.²³³³ In determining how long to maintain the near-zero rate, the Federal Reserve indicated that it “will assess progress—both realized and expected—toward its objectives of maximum employment and 2 percent inflation.”²³³⁴ The FOMC went on to explain, “even after employment and inflation are near mandate-consistent levels, economic conditions may, for some time, warrant keeping the target federal funds rate below levels that the Committee views as normal in the longer run.”²³³⁵ On June 17, 2015, the Chair of the Federal Reserve, Janet Yellen, further explained that “although policy will be data dependent, economic conditions are currently anticipated to evolve in a manner that will warrant *only gradual increases* in the target federal funds rate.”²³³⁶ Staff cites a recent *Business Insider* article to show that the Federal Reserve has kept the federal funds rate near zero percent since December, 2008 and hasn’t actually raised the interest rates since July 2006.²³³⁷ Staff argues that after more than six and a half years, the Federal Reserve’s policy to keep interest rates low can hardly be said to deviate from what is expected by the investment community.²³³⁸

²³²⁸ *Id.*

²³²⁹ *Id.* (see Exs. CAP-19 at 8:8, CAP-54 at 3:1-2).

²³³⁰ Staff IB at 27 (citing Merriam-Webster Online Dictionary, <http://www.merriam-webster.com/dictionary/anomalous> (last visited June 12, 2015)).

²³³¹ *Id.*

²³³² *Id.* at 28.

²³³³ *Id.* (citing Ex. S-7 at 26).

²³³⁴ *Id.* (quoting Ex. S-7 at 26).

²³³⁵ *Id.* (citing Ex. S-7 at 26).

²³³⁶ *Id.* at 29 (citing Ex. S-10 at 4 (emphasis added)).

²³³⁷ *Id.* (citing Ex. S-7 at 16).

²³³⁸ *Id.*

662. Staff argues that even if NETOs had shown that the Federal Reserve's monetary policy was anomalous during the Complaint II period that alone is not proof that the capital markets were anomalous during that period.²³³⁹ Staff cites Ms. Lapson's testimony on cross-examination that acknowledged that "monetary policy" and "capital markets" are two different concepts, and that capital markets are influenced by many factors outside of the Federal Reserve's monetary policy, including the global economy, wars, natural disasters, and new technologies.²³⁴⁰ Staff quotes Ben Bernanke's statement that "[t]he Fed's ability to affect real rates of return, especially longer-term real rates, is transitory and limited. Except in the short run, real interest rates are determined by a wide range of economic factors, including prospects for economic growth—not by the Fed."²³⁴¹ Staff asserts that, despite the clear distinction, Ms. Lapson confused "monetary policy" and "capital markets" when she testified that "the FOMC intends to 'normalize' the capital markets in the future at a still-unspecified date."²³⁴²

663. Staff asserts that the second component of the NETOs' case for anomalous market conditions rests on the theory that investors expect higher interest rates and increased volatility in the future.²³⁴³ Staff states that although Ms. Lapson acknowledges that "favorable equity market conditions . . . prevailed for utilities during the Complaint 2 and Complaint 3 Refund Periods and the Prospective Period," she tries to dismiss current realities by claiming that they are not a reliable predictor of investors' long-term expectations.²³⁴⁴ Staff cites Dr. Avera's testimony that "the suppressed bond yields characterizing the record period in Docket No. EL11-66 and in this proceeding are not indicative of investors' forward-looking expectations."²³⁴⁵ Staff contends that NETOs' theory that investors expect higher interest rates and increased volatility in the future is subjective, speculative and irrelevant.

664. Staff asserts that NETOs dismiss the possibility that low interest rates are the new normal, without providing any reliable evidence to the contrary. Staff cites Ms. Lapson's acknowledgement on cross examination that interest rates in Japan have been low for decades, but state that she seems to dismiss the possibility that a similar condition could exist in the United States.²³⁴⁶ Staff states that NETOs' position is contrary to Dr. Bernanke's recently stated view that "[l]ow interest rates are not a short-term aberration, but part of a long-term trend."²³⁴⁷ Staff claims that Exhibits NET-1917 and CAP-24

²³³⁹ *Id.*

²³⁴⁰ *Id.* (citing Tr. 439).

²³⁴¹ *Id.* (see Ex. CAP-19 at 10-11 (citing Ex. CAP-22 at 315-16)).

²³⁴² *Id.* (see Ex. NET-1400 at 20 (citing Ex. S-11)).

²³⁴³ *Id.* at 30 (citing Ex. NET- 1300 at 72-75 and NET-1600 at 3, 12-15).

²³⁴⁴ *Id.*

²³⁴⁵ *Id.* (citing Ex. NET-1500 at 25).

²³⁴⁶ *Id.* at 31 (citing Tr. 420).

²³⁴⁷ *Id.* (citing Ex. CAP-19 at 11 (citing Ex. CAP-22 at 315)).

indicate a steady downward trend in the real 10- Year Treasury yields since 1981.²³⁴⁸ Staff contends that the current real 10-Year Treasury yield is in line with the overall trend, and thus, not anomalous.²³⁴⁹

665. Staff argues that Ms. Lapson's Cross- Answering Testimony, where she advances a theory that the massive appeal of utility stocks during the relevant study periods reflected "a temporary appeal of utility shares in unusually large proportions to investors motivated quite differently from the normal owners of utility equities; they do not capture the longer-term implications associated with the shift that will likely occur when such investors exit from equities and return to their customary sectors."²³⁵⁰ Staff argues that Ms. Lapson cannot say who, specifically, the so-called "temporary" investors are or when they will exit from utility equities.²³⁵¹ Staff asserts that Ms. Lapson acknowledged that the exit could occur "*any time* past six months."²³⁵² Thus, Staff concludes, the purported "temporary" investors could hold utility equities for years to come. Staff argues that such vague speculation is no basis for setting the current cost of equity.

666. Staff cites Figure 1 in Ms. Lapson's Cross-Answering Testimony, which shows that current volatility is similar to that which was present before the 2008 financial crisis.²³⁵³ Staff claims that this contradicts Ms. Lapson's claim that volatility was unusually low during 2013 and 2014.²³⁵⁴ Staff also cites Ms. Lapson's testimony that, "Low volatility is generally acknowledged to have been a consequence of intense Federal Reserve monetary stimulus."²³⁵⁵ Staff argues that Ms. Lapson's testimony that the Federal Reserve's monetary policy will have "long lingering effects" undermines her claim that increased volatility is near.²³⁵⁶ Staff asserts that as recently as June 17, 2015, Chair Yellen emphasized the longevity of accommodative monetary policy:

Let me emphasize that the importance of the initial increase should not be overstated: The stance of monetary policy will likely remain highly accommodative for quite some time after the initial increase in the federal funds rate in order to support continued progress toward our objectives of maximum employment and 2 percent inflation.²³⁵⁷

667. Staff asserts that Ms. Lapson's prediction of higher volatility is merely speculative, inconsistent with recent guidance from the Federal Reserve, and according to

²³⁴⁸ *Id.* (citing Tr. 171-175).

²³⁴⁹ *Id.* (citing Tr. 171-175).

²³⁵⁰ *Id.* (citing Ex. NET-1600 at 27).

²³⁵¹ *Id.* (see Ex. S-12 at 2; Tr. 449-451).

²³⁵² *Id.* (citing Tr. 451 (emphasis added)).

²³⁵³ *Id.* at 32 (citing Ex. NET-1600 at 14).

²³⁵⁴ *Id.*

²³⁵⁵ *Id.* (citing Ex. NET-1600 at 13).

²³⁵⁶ *Id.* (citing Ex. NET-1400 at 12).

²³⁵⁷ Ex. S-10 at 1.

her own testimony, may not come to fruition for several years.²³⁵⁸

Staff argues that NETOs' theories about future changes in the capital markets are irrelevant to setting the current cost of equity. Regardless of what the future holds, Staff contends that the ROE for the Complaint II period must be based on market conditions during that period, not speculation. Staff asserts that transmission owners and customers are free to make filings at any time under sections 205 and 206 of the FPA in order to update the ROE based on changed circumstances.²³⁵⁹ Staff argues that Ms. Lapson acknowledged that if and when investors exit from utility equities, the resulting decrease in stock prices and increase in dividend yields would be reflected in the DCF model.²³⁶⁰ Staff concludes that NETOs would be free, at that time, to request a change in their allowed ROE.

(iv) CAPs and Staff argue that the NETOs have not shown that the midpoint of a properly conducted DCF analysis for the Complaint II period fails to meet the requirements of Hope and Bluefield

668. CAPs argue that NETOs contend that ROEs should not be adjusted to reflect current market conditions because conditions may eventually change again.²³⁶¹ CAPs contend that NETOs insist that investors expect bond yields to increase between now and 2019, so their ROE should be set to reflect those expectations.²³⁶² CAPs respond that the DCF is a forward-looking model that already reflects investor expectations.²³⁶³ CAPs assert that sound and statutory policy requires the ROEs to be set at the study period equity cost, and allow utilities to make Section 205 filings if and when equity costs rise.²³⁶⁴

669. Staff argues that there is no basis to find that the DCF analyses do not accurately reflect the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards.²³⁶⁵ Staff contends that it is an undisputed fact that current market conditions are highly favorable for utilities raising capital.²³⁶⁶ Staff asserts that NETOs cannot show that the ROEs produced by the DCF analyses would threaten their ability to maintain their credit or to attract capital.²³⁶⁷ Staff further claims that NETOs cannot show how the

²³⁵⁸ Staff IB at 32.

²³⁵⁹ *Id.* at 33.

²³⁶⁰ *Id.* (citing Tr. 451-452).

²³⁶¹ *Id.* at 41.

²³⁶² *Id.* at 41-42 (see Ex. NET-1300 at 74-75; NETOs Prehearing Brief at 18-19).

²³⁶³ *Id.* at 42 (see Ex. CAP-19 at 55:15-18).

²³⁶⁴ *Id.* (see Tr. 452:13-15).

²³⁶⁵ Staff IB at 33.

²³⁶⁶ *Id.*

²³⁶⁷ *Id.*

allegedly anomalous market conditions affect the inputs to the DCF model.²³⁶⁸

670. Staff argues that such evidence regarding favorable conditions for raising capital is more relevant to the capital attraction standard of *Hope* and *Bluefield* than the NETOs' arguments regarding monetary policy.²³⁶⁹ Staff argues that by producing midpoints in the 8-9 percent range, the DCF model accurately reflects the undisputed fact that market conditions were highly favorable for utilities raising capital during the Complaint II period.²³⁷⁰ Staff further argues that, regardless of whether current conditions are considered anomalous, there is no basis for setting the ROE above the true cost of capital, as indicated by the midpoint of the DCF results.²³⁷¹

671. Staff argues that NETOs' theory that a lower ROE would drive investors away from transmission rests almost entirely upon unreported, unrecorded conversations between Ms. Lapson and members of the investment community.²³⁷² Staff state that in response to a data request asking whether she had performed or relied upon any empirical research "that assesses the impact upon access by the NETOs to the capital market if the base ROE were to be reduced from 10.57% to the level recommended by CAPS witness Woolridge," Ms. Lapson stated that she had not performed any research on that topic.²³⁷³

672. Staff asserts that there is reliable record evidence from more mainstream analysts that support the view that lower ROEs will *not* drive away investors or harm the NETOs' credit ratings. Staff cites a *Moody's* article, titled "*Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles*," which explains that "the credit profiles of US regulated utilities will remain intact over the next few years despite our expectation that regulators will continue to trim the sector's profitability by lowering its authorized returns on equity (ROE)."²³⁷⁴ *Moody's* further explains that utility-friendly mechanisms, such as formula rates and future test years, result in "unfettered access to capital markets – for both debt and equity" for utilities, even as authorized ROEs are falling.²³⁷⁵ The article further states, "Today, we think that utilities enjoy an attractive set of market conditions that will remain in place over the next few years."²³⁷⁶ Staff argues that this corroborates Ms. Joe's testimony that conditions are favorable for utilities raising capital and that those conditions will remain in place for the foreseeable future.

²³⁶⁸ *Id.*

²³⁶⁹ *Id.* at 35 (citing Ex. S-1 at 73, 81).

²³⁷⁰ *Id.*

²³⁷¹ *Id.*

²³⁷² *Id.* at 35-36 (citing Ex. NET-1400 at 3, CAP-71 at 1 and CAP-72 at 1; Tr. 251).

²³⁷³ Staff IB at 36 (citing Ex. CAP-73 at 1).

²³⁷⁴ *Id.* at 37 (citing Ex. S-4 at 92).

²³⁷⁵ *Id.* (citing Ex. S-4 at 93).

²³⁷⁶ *Id.* (citing Ex. S-4 at 93).

673. Staff asserts that *Moody's* issued a credit opinion for one of the NETOs, Northeast Utilities (NU) (now known as Eversource Energy), in which *Moody's* ventured that lower ROEs will not harm the NETOs' credit ratings.²³⁷⁷ Staff asserts that the Initial Decision in Docket No. EL11-66, which recommended a going-forward ROE of 9.7 percent, was pending Commission review at the time of the credit opinion for NU.²³⁷⁸ Staff contends that despite the proposed 144 basis point reduction (from the existing 11.14 base ROE to the recommended 9.7), *Moody's* stated that, "the likelihood that such a reduction would trigger by itself a downgrade of the ratings of NU and its subsidiaries is low."²³⁷⁹ Staff asserts that *Moody's* pointed to utility-friendly mechanisms as a major reason why a lower authorized ROE would not harm the utility.²³⁸⁰

674. Staff asserts that Eversource Energy's credit rating was upgraded from A- to A in April 2015. Staff argues that this is the highest rating of any company in the electric industry. According to Staff, this is further proof that a lower ROE will not harm NETOs.

675. CAPs argue that Ms. Lapson's assertion that adopting Dr. Woolridge's recommended base ROEs would "discourage investment in the NETOs' transmission projects" and would have a "chilling effect on all FERC-jurisdictional transmission entities."²³⁸¹ CAPs state that Ms. Lapson's opinion lacks credible support. According to CAPs, Ms. Lapson's evidence—contacts with investors and a review of state commission ROE decisions rendered during the past 24-months—justify neither a 10.57% or 11.14% base ROE, nor the rejection of Dr. Woolridge's recommendations.²³⁸²

676. CAPs state that there are at least two significant flaws in Ms. Lapson's presentation. CAPs argue that Ms. Lapson's sponsors no DCF study²³⁸³ and has no expertise in that methodology.²³⁸⁴ CAPs assert that Ms. Lapson's testimony consists largely of musings about the economy and recollections of what she has been told in meetings with members of the "investment community"—a wide-ranging group that includes herself.²³⁸⁵

677. CAPs state that Ms. Lapson's claims are unverifiable and they cite her admission at trial that her testimony is premised on conversations about which she takes no notes nor retains any documents she may have received.²³⁸⁶ CAPs also assert that Ms. Lapson's

²³⁷⁷ *Id.* (citing Ex. S-13).

²³⁷⁸ *Id.* (citing Ex. S-13 at 4).

²³⁷⁹ *Id.* at 37-38 (citing Ex. S-13 at 4).

²³⁸⁰ *Id.* at 38 (citing Ex. S-13 at 4).

²³⁸¹ CAPs IB at 50 (citing Ex. NET-1400 at 36:8-12).

²³⁸² *Id.*

²³⁸³ Tr. 243:17-44:1.

²³⁸⁴ *Id.* at 51 (citing Tr. 244:2-7).

²³⁸⁵ *Id.* (citing Tr. 243:2-5).

²³⁸⁶ *Id.* (citing Tr. 251:3-8).

presentation ignores investment analyses prepared by “sell-side analysts.”²³⁸⁷ CAPs point to where Lapson testified that the analysts’ reports are “just not informative,” and reviewing them was “not a good use of time,” and something that “would make people crazy.”²³⁸⁸ CAPs cited Opinion No. 531-B at PP 51-54 to show that the Commission, in contrast, relied upon such reports in that opinion.²³⁸⁹ CAPs also point to the initial decision in Docket Nos. ER13-1508-001, *et al.* In that decision, the presiding judge criticized Entergy for failing to address analyst reports and for instead presenting evidence, including testimony from Ms. Lapson that was found “superficial.”²³⁹⁰

678. CAPs argue that the record in this proceeding shows that neither the NETOs nor the “investment community” are up in arms over the possibility that this case results in a lowered base ROE.²³⁹¹ They assert that the base ROE reduction implemented in Opinion No. 531 led to no such panic, and there has been no showing here that a further reduction will have adverse impacts.²³⁹²

679. CAPs contend that NETOs have offered no evidence that the 57 basis point reduction implemented in Opinion No. 531 has thwarted transmission investment.²³⁹³ They cite Ms. Lapson’s testimony that the base ROE reduction was “supportive and reasonable”²³⁹⁴ and note that she did not testify that it adversely impacted the NETOs’ access to capital.²³⁹⁵ CAPs assert that Ms. Lapson’s testimony contains no empirical research on this subject,²³⁹⁶ nor any statement by a NETO claiming impairment in its access to capital as a result of the decision.²³⁹⁷

680. CAPs assert that the NETOs’ actions, and the reactions of the investment community to those actions, speak far louder than Ms. Lapson’s words. They state that since the base ROE reduction implemented in Opinion No. 531, Eversource, the holding company for four of the NETOs, has touted both the value of transmission investment to its bottom line, and its plans to invest heavily in new transmission.²³⁹⁸ CAPs cite a May 2015 Eversource investor presentation which trumpets that “transmission earnings grew dramatically over the past decade,” and that “[t]ransmission [is] expected to account for

²³⁸⁷ *Id.*

²³⁸⁸ *Id.* (citing Tr. 308:9-14).

²³⁸⁹ *Id.*

²³⁹⁰ *Id.* (citing Entergy ID, 151 FERC ¶ 63,008, P 86).

²³⁹¹ *Id.*

²³⁹² *Id.*

²³⁹³ *Id.* at 52.

²³⁹⁴ Tr. 262:22-63:3.

²³⁹⁵ CAPs IB at 52 (citing Tr. 269:10-12).

²³⁹⁶ Ex. CAP-73; Tr. 253:12-16.

²³⁹⁷ CAPs IB at 52 (citing Ex. CAP-74, Tr. 268:25-69:4).

²³⁹⁸ *Id.*

about 50% of consolidated earnings growth through 2017.”²³⁹⁹ Citing the same presentation, CAPs state that Eversource invested \$5.6 billion in transmission during 2001-2014, but it forecasts making \$3.9 billion of investment during the 2015-2018 period alone.²⁴⁰⁰ CAPs assert that Eversource will likely fund those investments out of retained earnings and debt, not equity.²⁴⁰¹

681. CAPs assert that the credit rating agencies have praised Eversource’s plans. They state that in late April 2015, almost a year after issuance of Opinion No. 531, S&P *upgraded* its credit ratings for Eversource and each of its subsidiaries, moving them from “A-” to “A.”²⁴⁰² At the same time, S&P moved the Company’s business risk profile to “intermediate” from “significant,” noting that this was based in part on the “vast majority of operating cash flows com[ing] from regulated operations that are predominantly at the lower end of the utility risk spectrum....”²⁴⁰³

682. CAPs cite a May 22, 2015 report on Eversource, which states that Value Line raised the Company’s “Financial Strength” rating from “B++” to “A,” and the stock’s “Safety” ranks from “2” to “1” (the highest level).²⁴⁰⁴ They state that Value Line refers to capital spending on electric transmission as “another plus, despite a reduction in the allowed ROE imposed by [FERC].”²⁴⁰⁵ Also, while Value Line states that “[e]ven the reduced ROEs for transmission are still well above those for distribution, so this remains an attractive area for investment,”²⁴⁰⁶ CAPs argue that Value Line’s own data, reviewed *infra*, show that state commission ROEs for the states in which Eversource subsidiaries operate are well below the current FERC Base ROE and in line with CAPs’ recommendations.²⁴⁰⁷

683. CAPs assert that Ms. Lapson relies on a sole report from Wolfe Research.²⁴⁰⁸ They state that the report is the only investment analyst report mentioned in her testimony²⁴⁰⁹ and that it does not support her position. According to CAPs, Wolfe addresses the “uncertainty” caused by ongoing FERC base ROE challenges (including this one), but sees no resulting “chill” in investment. CAPs point out that the report opines that “[h]ow the continued uncertainty impacts utility plans is unknown, but we suspect it will not have a material impact near-term, as many companies still see transmission as a growth

²³⁹⁹ *Id.* (citing Ex. CAP-77 at 19).

²⁴⁰⁰ *Id.* (citing Ex. CAP-77 at 18, 21).

²⁴⁰¹ *Id.* (citing Ex. CAP-19 at 20:1-4, quoting Ex. CAP-25).

²⁴⁰² *Id.* at 53 (citing Ex. CAP-75).

²⁴⁰³ *Id.* (citing Ex. CAP-75).

²⁴⁰⁴ *Id.* (citing Ex. CAP-78).

²⁴⁰⁵ *Id.* (citing Ex. CAP-78).

²⁴⁰⁶ *Id.* (citing Ex. CAP-78).

²⁴⁰⁷ *Id.*

²⁴⁰⁸ *Id.* (citing Ex. NET-1602).

²⁴⁰⁹ *Id.* (citing Tr. 272:1-13, 299:2-7).

business.”²⁴¹⁰ CAPs cite Ms. Lapson’s testimony to show that she took no issue with the statement, but emphasized Wolfe’s reference to “near term.”²⁴¹¹ CAPs also cite Lapson’s testimony to show that she was constrained to acknowledge that Wolfe’s observation was “informed by” its own DCF analysis, which shows a midpoint of 8.62% and a Top Quarter of 9.77%.²⁴¹² CAPs thus argue that even the sole report relied upon by Ms. Lapson shows that the current base ROE (10.57%) is: (a) 80 basis points above the midway point between the midpoint and the top end of Wolfe’s DCF range, and (b) nearly 200 basis point above Wolfe’s DCF midpoint.²⁴¹³

684. CAPs also cite a March 2015 article by Moody’s Investors Service, *Lower Authorized Equity Returns Will Not Hurt Near-Term Credit Profiles*, which CAPs argue recognizes that authorized ROEs for electric and gas companies are declining due to lower interest rates, but that the “credit profiles of US regulated utilities will remain intact over the next few years.”²⁴¹⁴ Moody’s notes that “[p]ersistently low interest rates and a comprehensive suite of cost recovery mechanisms ensure a low business risk profile for utilities.”²⁴¹⁵ Far from impairing their ability to raise large amounts of capital, Moody’s states that in the current environment U.S. utilities are annually raising about \$50 billion in new capital, an indication that they have no issue raising capital, even with lower authorized ROEs.²⁴¹⁶ CAPs cited Ms. Lapson’s testimony stating that “utilities enjoy an attractive set of market conditions that will remain in place over the next few years,” but took no position as to the future.²⁴¹⁷ CAPs assert that should relevant circumstances change, NETOs are free to file to request approval to raise their Base ROE.²⁴¹⁸

E. Findings and Conclusions

(i) *The facts of this case demonstrate that application of the alternative methodologies is appropriate*

685. The undersigned agrees with NETOs, and finds that CAPs, EMCOS and Staff are incorrect on both the facts and the law when they argue that the NETOs have failed to demonstrate that anomalous capital market conditions exist, so that no alternative methodologies should be applied in this case.²⁴¹⁹ The undersigned finds that NETOs’

²⁴¹⁰ *Id.* at 54 (quoting Ex. NET-1602 at 15).

²⁴¹¹ *Id.* (citing Tr. 344:21-22).

²⁴¹² *Id.* (citing Tr. 346:4-11; Ex. NET-1602 at 13).

²⁴¹³ *Id.* (Ex. NET-1602 at 13).

²⁴¹⁴ *Id.* (citing Ex. S-4 at 92).

²⁴¹⁵ *Id.* (citing Ex. S-4 at 92).

²⁴¹⁶ *Id.* (citing Ex. S-4 at 93; Ex. CAP-19 at 6).

²⁴¹⁷ *Id.* at 54-55 (citing Tr. 455:14-20).

²⁴¹⁸ *Id.* at 55.

²⁴¹⁹ *See* NETOs RB at 31.

evidence exposes the DCF model risk addressed in Opinion Nos. 531 and 531-B.

686. NETOs have presented extensive, reliable and persuasive evidence that the anomalous capital market conditions addressed in Opinion No. 531 are also present in the Complaint II DCF study period.²⁴²⁰ NETOs have demonstrated that anomalous conditions persist for the Complaint II period and application of alternative methodologies is appropriate here.

687. Participants misconstrue Opinion Nos. 531 and 531-B by stating that the Commission found that alternative methodologies can only be applied if anomalous capital market conditions exist, and implying that those anomalous conditions must be identical to those present in the Complaint I period.²⁴²¹ The Commission did not hold that anomalous capital market conditions *must* exist to apply alternative methodologies. In Complaint I, the Commission's application of alternative methodologies was based on circumstances where the Commission had "less confidence that the midpoint of the zone of reasonableness accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards."²⁴²² In Opinion No. 531-B, the Commission stated that alternative methodologies are appropriate where the record evidence shows that capital market conditions are such that they have a "potential impact on the DCF model."²⁴²³ Where circumstances are identified that give the Commission less confidence that the midpoint of the zone of reasonableness from the DCF methodology reflects returns necessary to attract capital, the Commission has found that it is "necessary and reasonable" to review alternative benchmark methodologies and state commission-approved ROEs to gain insight into whether the midpoint of the DCF result satisfies the requirements of *Hope* and *Bluefield*.²⁴²⁴

688. Echoing similar failed arguments used in Complaint I,²⁴²⁵ Participants contend that it does not matter whether conditions exist that cause less confidence that the midpoint of the zone of reasonableness established in this proceeding accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards, because only the DCF analysis should be applied.²⁴²⁶ As the Commission explained, it applied

²⁴²⁰ See NETOs IB at 3-5, 31-36; *infra* Section 2.2.2.1.

²⁴²¹ See NETOs RB at 31.

²⁴²² Opinion No. 531, 147 FERC ¶ 61,234 at P 145.

²⁴²³ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 37.

²⁴²⁴ See Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 49 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-49) (noting that alternative methodologies were "necessary to evaluate . . . whether setting the NETOs' ROE at the midpoint of the zone of reasonableness satisfied the requirements of *Hope* and *Bluefield*"); Opinion No. 531-B at P 87.

²⁴²⁵ See NETOs RB at 34.

²⁴²⁶ See CAPs IB at 36 (stating that the NETOs "apply their [alternative] methods to supersede, not supplement, the standard-method DCF studies"); Staff IB at 26 (stating

alternative methodologies and state commission-authorized ROE analyses in Opinion No. 531 not to “depart from [its] use of the DCF methodology,” but to “inform the just and reasonable placement of the ROE within the zone of reasonableness established in the record by the DCF methodology.”²⁴²⁷

689. Regarding the issue of whether anomalous conditions exist, the undersigned places great weight upon the testimony and opinions of NETOs’ expert witnesses Lapson and Avera. The alternative methodologies may be applied where, as here, the record evidence shows that capital market conditions were such that they had a “potential impact on the DCF model.”²⁴²⁸ And consistent with Commission precedent, the alternative methodologies are not used to “supersede” the DCF methodology; rather, they are used to “inform the just and reasonable placement of the ROE within the zone of reasonableness established in the record by the DCF methodology.”²⁴²⁹ The alternative methodologies are used as a check to ascertain whether the DCF model is operating properly. If conditions of the capital markets are such that the model is not acting as expected, other methodologies must be used that will help inform in the anomalous times. The undersigned finds that NETOs are applying here the alternative methodologies in the same manner as in Docket No. EL11-66.²⁴³⁰ CAPs and other parties have put forth no evidence that the NETOs are attempting to negate the DCF results here.²⁴³¹ The undersigned finds that the alternative methodologies are helpful to inform and to obtain a base ROE result that complies with *Hope* and *Bluefield*.²⁴³²

690. EMCOS rely upon Paragraph 146 of Opinion No. 531 to argue that the Commission considers four alternative benchmarks to be informative: the risk premium, CAPM, expected earnings and state authorized ROEs; and that those methodologies are only informative if they are properly conducted.²⁴³³ For purposes of clarity, the undersigned finds that in paragraph 146, in Opinion No. 531, the Commission only approvingly refers to three alternative models: “²⁴³⁴risk premium analysis, the CAPM, and expected earnings analyses . . .” However, the fourth model is approvingly cited in

that the Commission has “long relied on the DCF model” and that alternative methodologies should not be applied); EMCOS IB at 25-26.

²⁴²⁷ See Opinion 531-B at PP 80, 84, 91.

²⁴²⁸ NETOs RB at 31 (quoting Opinion No. 531-B, 150 FERC ¶ 61,165 at P 37).

²⁴²⁹ *Id.* (quoting Opinion No. 531, 147 FERC ¶ 61,234 at P 146).

²⁴³⁰ See NETOs IB at 22-23; NETOs RB at 34.

²⁴³¹ *Id.*

²⁴³² *Id.*

²⁴³³ See EMCOS IB at 27 (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 146 (finding CAPM, risk premium, expected earnings and state authorized ROEs to be “informative” but holding that in “considering these other methodologies, we do not depart from our use of the DCF methodology”).

²⁴³⁴ Opinion No. 531, 147 FERC ¶ 61,234, at P 146, 147.

paragraph 148 of Opinion No. 531.²⁴³⁵ As explained above, the undersigned finds that anomalous market conditions are present for the Complaint II period. Therefore, it is necessary and reasonable to consult these four alternative financial models for the period at issue.

691. In Opinion No. 531 NETOs advanced 5 alternative models. In this case they advance ten; they are:²⁴³⁶ a risk premium analysis of Commission allowed ROEs;²⁴³⁷ a Capital Asset Pricing Model (“CAPM”);²⁴³⁸ an expected earning analysis;²⁴³⁹ a risk premium analysis of state commission allowed ROEs;²⁴⁴⁰ an “empirical” CAPM (ECAPM);²⁴⁴¹ a survey of gas pipeline ROEs;²⁴⁴² a projected bond yields analysis;²⁴⁴³ a DCF analysis of low-risk non-utility companies;²⁴⁴⁴ an analysis of flotation costs;²⁴⁴⁵ and an analysis of state commission-authorized ROEs.²⁴⁴⁶ The Commission, in Opinion Nos. 531 and 531-B, did not rely on any ECAPM analysis, survey of gas pipeline ROEs, projected bond yield analysis, DCF analysis of low-risk non-utility companies, and analysis of flotation costs. To the extent that the additional models go beyond the four accepted by the Commission, they will not be addressed or relied upon by the undersigned.

692. In this case, NETOs essentially present updated versions of the detailed analyses they presented as evidence in Opinion No. 531. Their evidence in this case includes: data on historically low bond yields and interest rates;²⁴⁴⁷ evidence of Federal Reserve intervention into markets impacting interest rates and all classes of capital;²⁴⁴⁸ and interest rate forecasts projecting a rise in interest rates.²⁴⁴⁹ NETOs’ evidence demonstrates conclusively that the capital market conditions the Commission relied upon to find that market conditions were anomalous in Opinion No. 531 still exist as they have

²⁴³⁵ *Id.* at P 148.

²⁴³⁶ *See* EMCOS IB at 26-27.

²⁴³⁷ Ex. NET-1300 at 26-31.

²⁴³⁸ *Id.* at 32-36.

²⁴³⁹ *Id.* at 36-39.

²⁴⁴⁰ *Id.* at 41-42.

²⁴⁴¹ *Id.* at 42-44.

²⁴⁴² *Id.* at 44-47.

²⁴⁴³ *Id.* at 47-48.

²⁴⁴⁴ *Id.* at 48-53.

²⁴⁴⁵ *Id.* at 54-56.

²⁴⁴⁶ Ex. NET-1400 at 37-50.

²⁴⁴⁷ *Compare* NETOs IB at 34-35 with Opinion No. 531, 147 FERC ¶ 61,234 at P 129.

²⁴⁴⁸ *Compare* NETOs IB at 35-36 with Opinion No. 531, 147 FERC ¶ 61,234 at P 130.

²⁴⁴⁹ NETOs RB at 51 (*compare* NETOs IB at 36-37 with Opinion No. 531 at P 130).

not changed in any material respect.²⁴⁵⁰ The NETOs have provided extensive credible and persuasive evidence that capital market conditions that were anomalous during the Complaint II DCF study period continue to be anomalous.²⁴⁵¹ The following evidence is significant and compelling, especially so because it includes the *same types of evidence* that constituted the NETOs' record evidence in the Opinion No. 531 proceeding and that evidence was relied upon by the Commission:²⁴⁵²

- Yields on 10-year U.S. Treasury bonds are at historic lows, below the 3% level the Commission identified as historically abnormal in Opinion No. 531;²⁴⁵³
- Yields on utility bonds are at historic lows;²⁴⁵⁴
- Recent Federal Reserve Bank of Philadelphia President Charles Plosser states that interest rates are historically abnormal, and Dr. Woolridge concedes that this is the case;²⁴⁵⁵
- The Federal Reserve has engaged in an unprecedented intervention into financial markets;²⁴⁵⁶
- The effect of the Federal Reserve's intervention has been the suppression of interest rates to extremely low levels, affecting all classes of capital.²⁴⁵⁷

²⁴⁵⁰ *Id.* at 52.

²⁴⁵¹ *Id.* at 54-55.

²⁴⁵² *Id.*

²⁴⁵³ *Id.* (citing NET-1300 at 73-74 & fig. NET-3; NET-1500 at 15 & tbl.1) (The NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 33 (citing NET-400 at 33, 39)).

²⁴⁵⁴ *Id.* (citing NET-1300 at 73-74 & fig. NET-3; NET-1500 at 15 & tbl.1) (The NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 33 (citing NET-400 at 33, 39)).

²⁴⁵⁵ Ex. NET-1300 at 85; Tr. 158:10-12 (This evidence is new to the EL13-33 and EL14-86 proceeding).

²⁴⁵⁶ NETOs IB at 35 (citing NET-1300 at 72-73; NET-1400 at 14-16; NET-1600 at 8-12; Tr. 433:1-8). The NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 33 (citing NET-300 at 12-13; NET-400 at 32-36; NET-600 at 31-32; EL11-66 Tr. 428:2-22).

²⁴⁵⁷ *Id.* (citing NET-1300 at 77; NET-1400 at 19-20; NET-1600 at 11), 57-58 (citing NET-1300 at 75- 77; NET-1400 at 16-22; Tr. 437:1-439:5). The NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 33-34 (citing NET-300 at 12-13; EL11-66 Tr. 427:23-428:22).

- Extremely low interest rates have caused unconventional, unsustainable demand for utility equities, driving up utility stock prices and driving down utility dividend yields;²⁴⁵⁸
- The consensus expectation is that interest rates will rise once the Federal Reserve's intervention recedes;²⁴⁵⁹
- Interest rate forecasts from widely-referenced, Commission-supported advisory publications show that investors expect interest rates will rise significantly in the near-term future;²⁴⁶⁰
- Utility bond yield forecasts from widely-referenced, Commission-supported advisory publications show that investors expect utility bond yields will rise significantly in the near-term future;²⁴⁶¹
- A study by McKinsey & Company rejects the notion that interest rates will remain low for an extended period as a "new normal";²⁴⁶²
- Alternative ROE methodologies produce significantly higher results, indicating the DCF methodology is being distorted by anomalies;²⁴⁶³ and
- Increased equity market volatility in the first quarter of 2015 suggests there will be less prospective investor demand for utility equities as a substitute for bonds. Volatility will likely increase as the Federal Reserve moves towards policy normalization.²⁴⁶⁴

²⁴⁵⁸ *Id.* 37-38 (citing NET-1500 at 33; NET-1600 at 11-12, 16-19; Tr. 353:13-17, 432:6-436:23, 451:23-452:4). The NETOs presented this evidence in EL11-66 in NET-400 at 33-34.

²⁴⁵⁹ *Id.* at 4 (citing NET-1300 at 23-24 & tbl. NET-1, 74-75 & fig. NET-4; NET-1400 at 20-22; NET-1700 at 9-10 & tbl.1; NET-1906 at 2-4; NET-1908 at 2; Tr. 963:1-25). NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 34 (citing NET-300 at 12-13; EL11-66 Tr. 427:23-428:22, 841:11-842:12).

²⁴⁶⁰ Ex. NET-1300 at 74-75 & fig. NET-4. NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 34 (citing NET-300 at 14-15 & tbl. WEA-1; NET-500 at 93-94 & tbl. WEA-1).

²⁴⁶¹ NETOs IB at 36 (citing NET-1300 at 23-24 & tbl. NET-1, 74-75 & fig. NET-4; NET-1700 at 9-10 & tbl.1). NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 34 (citing NET-300 at 35; NET-700 at 6-7).

²⁴⁶² *See* Ex. NET-1300 at 85.

²⁴⁶³ NETOs IB Sections 2.2.1, 3.2.1. NETOs presented this evidence to the Commission in EL11-66 in their Brief on Exceptions at 35 (citing Brief on Exceptions Section II.C).

²⁴⁶⁴ Ex. NET-1600 at 12-15. NETOs presented evidence on volatility in EL11-66

Additionally, NETOs also presented the following *new* evidence in this proceeding:

- Real after-tax 10-year U.S. Treasury bond yields (that is, bond yields after inflation and taxes are taken into account) are negative;²⁴⁶⁵
- A Federal Reserve Bank of New York Staff Report now agrees with the conclusion that the effect of the Federal Reserve's intervention has been the suppression of interest rates to extremely low levels, affecting all classes of capital;²⁴⁶⁶ and
- Announcements from the Federal Reserve show that it has not yet begun to "normalize" its policy and pare back its intervention.²⁴⁶⁷

693. CAPs and EMCOS wrongly attempt to use Commissioner Honorable's concurrence in Opinion No. 531-B to argue that there is a higher evidentiary burden that the NETOs must now meet to show capital market conditions are anomalous.²⁴⁶⁸ Opinion No. 531 emphasized that it was necessary to consider the impact of anomalous capital market conditions in order to satisfy the standards of *Hope* and *Bluefield*.²⁴⁶⁹ The concurring Opinion of Commissioner Honorable was just that; it concurred with Opinion No. 531. Her announcement that evidence of anomalous capital market conditions would be closely scrutinized does not create a higher evidentiary standard than the majority's decision announced in Opinion No. 531, and clarified in Opinion No. 531-B.

694. Regarding the issue of anomalous capital market conditions, the NETOs have closely followed the instructions provided by the Commission where it explained that "we expect the parties in this proceeding to present evidence and any DCF analyses, as guided by our decision in Opinion No. 531."²⁴⁷⁰ The NETOs have provided the same basic evidence and made the same showings that met the evidentiary standard applied in Opinion No. 531, as clarified in Opinion No. 531-B, while also providing new and corroborating evidence that are relevant to the study periods in this case.

in their Initial Brief at 122 (citing NET-400 at 36; NET-600 at 32).

²⁴⁶⁵ NETOs IB at Tr. 137:18-23, 143:1-144:6. This evidence is new to the EL13-33 and EL14-86 proceeding.

²⁴⁶⁶ See Ex. NET-1600 at 10-11 nn.7 & 9. This evidence is new to the EL13-33 and EL14-86 proceeding.

²⁴⁶⁷ NETOs IB at 36 (citing NET-1400 at 20-22; NET-1906 at 2-4; NET-1908 at 2; NET-1908 at 4-5; NET-1907 at 1; Tr. 963:1-12). This evidence is new to the EL13-33 and EL14-86 proceeding.

²⁴⁶⁸ CAPs IB at 5, 36; EMCOS IB at 8-9.

²⁴⁶⁹ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49.

²⁴⁷⁰ *ENE (Environment Northeast) v. Bangor Hydro-Electric Co.*, 147 FERC ¶ 61,235 at P 26 (2014).

695. In Opinion No. 531, the Commission found that “any DCF analysis may be affected by potentially unrepresentative financial inputs to the DCF formula, including those produced by historically anomalous capital market conditions.”²⁴⁷¹ The evidence in this case indicates that the unusually low bond yields and interest rates that are characteristics of the anomalous capital market conditions that existed in the Complaint II DCF period affected utility stock prices and dividend yields, which are inputs into the DCF analysis, during the relevant periods.²⁴⁷² This influence results in the DCF analysis producing abnormally low-end results that distort the ROE midpoint. Moreover, unusually low interest rates have a direct effect on the DCF analysis because the Commission’s low-end test failed to remove companies with very low ROE estimates, skewing the ROE zone of reasonableness substantially downward.²⁴⁷³

696. In Opinion No. 531, the Commission also recognized that the distortion caused by “potentially unrepresentative financial inputs to the DCF formula” requires critical evaluation of the reliability of the DCF results.²⁴⁷⁴ Therefore, the undersigned cannot simply accept CAPs’ and EMCOS’ arguments that the Federal Reserve’s actions have been accurately incorporated into the DCF results.²⁴⁷⁵ Rather, the undersigned agrees with NETOs that Opinion No. 531 requires an evaluation of the DCF results against observable benchmarks such as bond yields and the results of alternative methodologies, and to determine the end result ROE that satisfies the *Hope* and *Bluefield* standards.²⁴⁷⁶ This is especially important considering that the market price of utility stocks is the only observable input to the DCF analysis – the other inputs, including expected EPS growth rates and dividend yields, are unobservable estimates.²⁴⁷⁷ These estimates may not accurately reflect the long-term views of utility investors due to exogenous factors such as the Federal Reserve’s unprecedented monetary policies.²⁴⁷⁸ This is one reason why, for example, a growth estimate published by one service may be markedly different from the growth estimate published by another service.²⁴⁷⁹

697. Although Staff argues that high prices for utility stocks indicate that market conditions are favorable for utilities,²⁴⁸⁰ the undersigned finds that higher stock prices are the logical consequence of the current low interest rate environment, which has led to

²⁴⁷¹ Opinion No. 531, 147 FERC ¶ 61,234 at P 41.

²⁴⁷² NETOs RB at 59 (citing Ex. NET-1400 at 5-6; Ex. NET-1600 at 2, 19, 25; Tr. 385).

²⁴⁷³ NETOs IB at 39.

²⁴⁷⁴ NETOs RB at 59 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 41).

²⁴⁷⁵ *Id.* (citing CAPs IB at 40; EMCOS IB at 12-14).

²⁴⁷⁶ *See Id.* at 59-60.

²⁴⁷⁷ *See Id.* at 60 (citing Ex. NET-1500 at 26-27).

²⁴⁷⁸ *See Id.* (citing Ex. NET-1500 at 26-27).

²⁴⁷⁹ *See Id.* (citing Ex. NET-1500 at 26-27).

²⁴⁸⁰ Staff IB at 35.

higher investor demand for utility stocks.²⁴⁸¹ Thus, elevated stock prices are further evidence that capital market conditions are anomalous.²⁴⁸² Over the past five years, as represented by the S&P 500, utility stocks have lagged the market as a whole and in 2015 utility stock prices experienced a substantial decline.²⁴⁸³ Lagging and recently declining utility stock prices contradict Staff's argument that utility stock prices are indicators of particularly favorable market conditions for utilities.²⁴⁸⁴

698. The right to request a future change in the allowed ROE does not excuse an examination of whether a particular ROE meets the strictures of *Hope* and *Bluefield*. Staff and CAPs argue that "future changes in the capital markets are irrelevant to setting the current cost of equity" and that if circumstances change the NETOs would be free to request a change in their allowed ROE pursuant to an FPA section 205 filing.²⁴⁸⁵ However, the Commission rejected this same argument in Opinion No. 531-B, stating that its analysis is not affected by the fact that the NETOs can subsequently request a rate increase under FPA section 205 if circumstances change.²⁴⁸⁶ The Commission stated that "NETOs' ability to subsequently request a rate increase if economic conditions change does not excuse the Commission from establishing an ROE under FPA section 206 that meets the requirements of *Hope* and *Bluefield*."²⁴⁸⁷

699. The Commission recognized in Opinion Nos. 531 that the ability to rely on the central tendency resulting from a DCF analysis is undermined when the inputs into the DCF analysis are being skewed by extremely unusual and artificially supported capital market conditions.²⁴⁸⁸ The DCF model is a widely referenced approach to estimate investors' cost of equity, but it is subject to model risk.²⁴⁸⁹ To the extent that transitory conditions related to the Federal Reserve's unprecedented monetary policies impact the DCF model's ability to accurately reflect the return required to secure equity capital for investment in long-lived electric utility transmission assets, the resulting cost of equity estimates do not meet the standard under *Hope* and *Bluefield*.²⁴⁹⁰ Consequently, the undersigned agrees with NETOs that additional evidence to help evaluate the accuracy and appropriateness of the base ROE DCF results must be taken into account,²⁴⁹¹ as this mirrors the approach that the Commission adopted in Opinion No. 531.²⁴⁹² The

²⁴⁸¹ See NETOs RB at 60.

²⁴⁸² NETOs IB at 37-38.

²⁴⁸³ NET-1500 at 33; Ex. S-8 at 1-2.

²⁴⁸⁴ See NETOs RB at 60.

²⁴⁸⁵ See Staff IB at 32-33.

²⁴⁸⁶ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 50.

²⁴⁸⁷ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 50.

²⁴⁸⁸ See Opinion No. 531 at P 142.

²⁴⁸⁹ Opinion No. 531 at P 145, n.286.

²⁴⁹⁰ NETOs RB at 61 (citing Ex. NET-1300 at 81; Ex. NET-1500 at 26-27).

²⁴⁹¹ See NETOs RB at 61.

²⁴⁹² Opinion No. 531, 147 FERC ¶ 61,234 at PP 41, 144-45.

undersigned finds that the deviation between the results of the DCF model and the alternative benchmark methods applied in Opinion No. 531 demonstrates the capital market anomalies recognized by the Commission.²⁴⁹³

(ii) *The parties advocating the placement of the base ROE above the midpoint bear the burden of establishing the existence of anomalous capital market conditions.*

700. The undersigned finds that, as the parties advocating the placement of their Base ROE above the midpoint, NETOs bear the burden of establishing the existence of the anomalous capital market conditions that justify a departure from the Commission's decisional norm of placing a just and reasonable ROE at the midpoint of the zone of reasonableness.

701. NETOs' incorrectly argue that the appropriate capital market conditions issue to be examined in this proceeding is whether conditions have changed since Opinion No. 531.²⁴⁹⁴ EMCOS correctly point out that NETOs made nearly similarly unsuccessful arguments before the Commission while arguing for the dismissal of the complaints in these dockets,²⁴⁹⁵ and the Commission rejected these arguments when it set this matter for hearing.²⁴⁹⁶ Additionally, Opinion No. 531 and subsequent Commission precedent make it clear that Opinion No. 531's anomalous market condition findings were limited to the record in *that* proceeding.²⁴⁹⁷ To accept NETOs argument would impermissibly

²⁴⁹³ See Ex. NET-1300 at 80; Ex. NET-1500 at 29-30.

²⁴⁹⁴ See NETOs Pre-Hearing Brief at 3 (emphasis in original).

²⁴⁹⁵ EMCOS IB at 10 (citing *ENE (Environmental Northeast) et al. v. Bangor Hydro-Electric Co. et al.*, 147 FERC ¶ 61,235, at P 14 (2014) (NETOs' argument that the Commission should dismiss the EL13-33 complaint because it shared "a common nucleus of operative facts" with the complaint in Docket No. EL11-66); *Attorney General of Mass. et al. v. Bangor Hydro-Electric Co.*, 149 FERC ¶ 61,156 at P 17 (2014) (NETOs' argument that "the anomalous market conditions previously recognized by the Commission have continued unabated" as support for their request that the EL14-86 complaint be dismissed).

²⁴⁹⁶ *Id.* (citing *ENE (Environmental Northeast)*, 147 FERC ¶ 61,235, at P 27 (2014) (dismissing the NETOs' arguments and holding the EL13-33 complaint should be set for settlement judge proceedings and hearing in recognition of the new analysis presented); *Attorney General of Mass. et al.*, 149 FERC ¶ 61,156, at P 28 (2014) (dismissing the NETOs' arguments and holding the EL14-86 complaint introduced new analysis with more current data).

²⁴⁹⁷ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 142 (recognizing Commission precedent for using the midpoint, but holding that "the record in *this case*" warranted an upward adjustment due to anomalous market conditions); *Id.* at P 152 ("In sum, based on the record evidence in *this case*, including unusual capital market

shift the burden of proof to EMCOS, CAPs and Staff to state that Participants must show that the anomalous conditions no longer exist. Each period under consideration must be viewed individually. However, it may be helpful to compare one period to another merely for the sake of illustration. No party has cited any authority which holds that one is prohibited from comparing one period to another merely for the sake of illustration.

702. In addition, accepting the NETOs' position would ignore the Supreme Court's and the Commission's holding's that a just and reasonable ROE must be identified on a case by case basis, and must be reflective of the economic conditions found in each individual record.²⁴⁹⁸ The Supreme Court has recognized that a return "may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, money market and business conditions generally."²⁴⁹⁹ Similarly, the Commission insists on the use of current market data, stating:

In contrast to other cost of service issues, return on equity can be particularly volatile. It will change both as an individual public utility's risks change over time and as capital market conditions change over time. Thus...a return on equity found to be reasonable at one time may be unreasonable at a later time.²⁵⁰⁰

conditions...") (emphasis added). *See also Arkansas Electric Coop. Corp. et al. v. ALLETE, Inc. et al.*, 151 FERC ¶ 61,219, at P 4 (2015) (summarizing the Commission's decision in EL11-66 by saying: "The Commission also found that, due to the anomalous capital market conditions *reflected in the record of that proceeding*, mechanically applying the DCF methodology...would not satisfy the requirements...Therefore, the Commission found it appropriate, *based on the record evidence in the proceeding*, to place the NETOs base ROE..." (emphasis added).

²⁴⁹⁸ *Id.* at 11 (citing *Bluefield*, 262 U.S. at 690-692 (the identified rate of return must be sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service"...and "depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment having regard to all relevant facts"); *Portland Natural Gas Transmission Sys.*, 134 FERC ¶ 61,129, at P 249 (2011) (confirming the importance of examining the "most recent record data" in a proceeding "because that data accurately reflects the actual market conditions during the locked-in period."); *Entergy Arkansas LLC*, 151 FERC ¶ 6,008, at P 90 (holding that *Bluefield* requires that a just and reasonable ROE must be determined on a case by case basis."))

²⁴⁹⁹ *Bluefield*, 262 U.S. at 693; *Hope* 320 U.S. at 352 (an order establishing a return "is not an order for all time" and utilities have access to the "machinery for obtaining rate adjustments" because "the doors of the Commission are always open for increased allowances").

²⁵⁰⁰ *Consumer Advocate Div. of Pub. Serv. Comm. of West Virginia v. Allegheny Generating Co.*, 68 FERC ¶ 61,207, 61,998 (1994) (holding that data about market

703. NETOs' position that it is incumbent on the CAPs, EMCOS and Trial Staff to prove a change in conditions from those in existence in the EL11-66 record directly conflicts the Commission's reasoning in Opinion No. 531.²⁵⁰¹

(iii) The evidence presented by Participants does not support the conclusion that capital market conditions have changed since Opinion No. 531 or that current conditions are now normal

704. The undersigned finds that CAPs mistakenly assert that capital market conditions cannot be anomalous because they have lasted for several years.²⁵⁰² Opinion No. 531 does not establish a time limit for considering whether anomalous market conditions exist. The undersigned rejects CAPs' and Staff's characterization of historically low interest rates as a "new normal". The Commission previously rejected these arguments by CAPS and Staff in Opinion No. 531-B.²⁵⁰³

705. CAPs and Staff also miss the mark by arguing that Dr. Avera's rate "predictions" made in EL11-66 were wrong.²⁵⁰⁴ Dr. Avera's interest rate projections offered in EL11-66, Complaints II and III, are not his own projections, but are those from independent forecasts found in economic and advisory publications.²⁵⁰⁵ Those publications include IHS Global Insight and the EIA; both of which the Commission relied upon in its two-step DCF model.²⁵⁰⁶ NETOS correctly point out that the distinction is key.²⁵⁰⁷ However, the undersigned finds that that distinction mysteriously eludes CAPS and Staff. The DCF analysis is intended to model *investor expectations*, not actual market outcomes. Again, as the Commission has stressed, "the cost of common equity to a regulated enterprise depends upon what the market expects, not upon what ultimately happens."²⁵⁰⁸ The undersigned finds CAPs and Staff's arguments that NETOS have fatally confused the Federal Reserve's discussion about normalizing its monetary policy with normalizing

conditions in 1992 was sufficiently stale to support a new Section 206 proceeding in 1994).

²⁵⁰¹ EMCOS IB at 12 (citing *Entergy Arkansas Inc.*, 151 FERC ¶ 63,008, at P 84 (holding the party advocating the existence of anomalous market conditions bears the "burden to show that a unique environment specifically impacts [that utility], its investors, and the rate of return they require.")).

²⁵⁰² NETOs RB at 57 (citing CAPS IB at 37).

²⁵⁰³ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 49.

²⁵⁰⁴ See CAPs IB at 38; Staff IB at 30.

²⁵⁰⁵ NETOs RB at 57-58 (citing Ex. NET-1300 at 74-75, 82).

²⁵⁰⁶ See Ex. NET-1300 at 74-75.

²⁵⁰⁷ NETOs RB at 58 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 88; NET-1300 at 79).

²⁵⁰⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at 88; Ex. NET-1300 at 82-83).

capital market conditions are not supported by persuasive record evidence.²⁵⁰⁹

2.2.1.2 CAPM

A. NETOs

706. NETOs assert that Dr. Avera's CAPM analysis uses the same forward-looking analysis approved by the Commission in Opinion Nos. 531 and 531-B.²⁵¹⁰ NETOs state that the CAPM is a theory of market equilibrium that measures risk using the beta coefficient, and it is a forward-looking model based on investors' expectations.²⁵¹¹ NETOs argue that, consistent with Opinion No. 531, Dr. Avera implemented the CAPM using a forward-looking market rate of return determined by applying a one-step DCF analysis to the dividend-paying firms in the S&P 500.²⁵¹² NETOs note that the forward-looking CAPM estimates produce an ROE range of 8.69% to 14.13%, with a midpoint of 11.41%.²⁵¹³ Dr. Avera also presented a new variation on the CAPM analysis known as the ECAPM.²⁵¹⁴ The ECAPM purportedly corrects for the understated returns that would otherwise be produced for low beta stocks.²⁵¹⁵ NETOs state that the ECAPM approach results in a zone of reasonableness of 9.56% to 14.02%, with a midpoint of 11.79%.²⁵¹⁶

707. NETOs assert that Participants' arguments against Dr. Avera's CAPM analyses are at variance with the Commission's conclusions in Opinion No. 531. NETOs assert that Dr. Woolridge's argument that Dr. Avera should have used a long-term growth rate in his CAPM analysis,²⁵¹⁷ and Dr. Woolridge's and Ms. Joe's arguments that Dr. Avera should not have used a size adjustment,²⁵¹⁸ were specifically rejected in Opinion No. 531-B.²⁵¹⁹

708. NETOs argue that Dr. Avera's use of a size adjustment arises because differences in investors' required rates of return that are related to firm size are not fully captured by the beta coefficient.²⁵²⁰ The beta coefficient represents how risky the company is relative

²⁵⁰⁹ *Id.* (citing CAPS IB at 40-41; Staff IB at 4, 29-30).

²⁵¹⁰ NETOs IB at 24 (see Ex. NET-1300 at 32-35; Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-47; Opinion 531-B, 150 FERC ¶ 61,165 at PP 102-03, 108-19, Tr. 705:6-706:16, 947:25-948:6, 949:7-17).

²⁵¹¹ *Id.* (citing Ex. NET-1300 at 32).

²⁵¹² *Id.* (citing Tr. 949:7-17; Ex. NET-1300 at 33).

²⁵¹³ *Id.* at 25 (citing Ex. NET-1300 at 7-8; Ex. NET-1313 at 1).

²⁵¹⁴ *Id.*, n.38.

²⁵¹⁵ *Id.*, n.38 (citing Ex. NET-1300 at 39, 42-43).

²⁵¹⁶ *Id.*, n.38 (citing Ex. NET-1300 at 9-10; Ex. NET-1313 at 2).

²⁵¹⁷ See Ex. CAP-19 at 67-92.

²⁵¹⁸ See Ex. CAP-19 at 99-103; Ex. S-1 at 10, 90-92.

²⁵¹⁹ NETOs IB at 25 (see Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 113, 117).

²⁵²⁰ *Id.* (see Ex. NET-1300 at 35; Tr. 819:24- 820:3).

to its peers. NETOs assert that Dr. Avera applied the size adjustment for the CAPM based on research from the same highly regarded source approved in Opinion No. 531; namely, Morningstar's Ibbotson SBBI Market Report.²⁵²¹

709. NETOs contend that Dr. Avera's reference to Value Line growth rates in estimating the market rate of return used in his application of the CAPM was appropriate. NETOs concede that Dr. Avera did not incorporate Value Line growth rates in the CAPM he presented in EL11-66²⁵²² that was referenced in Opinion No. 531. NETOs argue that this "refinement" is consistent with the Commission's observation that "there may be more than one valid source of growth rate estimates."²⁵²³ NETOs state that Dr. Woolridge also admits that he used the same Value Line growth rates referenced by Dr. Avera in recent testimony filed before the Massachusetts DPU and the KCC.²⁵²⁴

710. NETOs accuse CAPs witness Dr. Woolridge of presenting, and Staff witness Ms. Joe of supporting, a flawed historical application of the CAPM that the Commission has already rejected.²⁵²⁵ NETOs argue that Dr. Woolridge's CAPM was rejected by the Commission in Opinion No. 531-B because of its unreliable, backward-looking assumptions.²⁵²⁶ NETOs assert that Dr. Woolridge's CAPM should be rejected here for the same reason.

B. Participants

711. CAPs argue that NETOs' other methods produce higher-than-DCF estimates only because Dr. Avera has engineered those alternatives to that end.²⁵²⁷ CAPs state that Woolridge's rebuttal testimony proves that the alternative empirical methods, once stripped of implausible artifices, point to equity cost levels aligned with those of the standard method, forward-looking utility DCF studies.²⁵²⁸ CAPs state that Dr. Woolridge presented a CAPM study in his direct testimony, using a risk-free rate of 4.0% and an equity risk premium of 5.0%. Combined with a conservative, long-horizon measure of the utility proxies' relative-volatility "betas," this study pointed towards a Base ROE of

²⁵²¹ *Id.* (citing Ex. NET-1327 at 113; Tr. 817:5-11, 822:20-823:9).

²⁵²² Ex. NET-1500 at 20, n.27.

²⁵²³ *Id.* at 25-26 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90).

²⁵²⁴ *Id.* at 26 (citing Ex. NET-1903 at 3; Ex. NET-1904 at 3; Tr. 64:19-24, 65:9-16, 66:6-9, 66:20-25).

²⁵²⁵ *Id.* (citing Ex. CAP-1 at 36-42; Ex. CAP-7; Ex. CAP-54 at 2, 13-15; Ex. CAP-70; Ex. S-1 at 14, 87-89).

²⁵²⁶ *Id.* (see Ex. NET-1300 at 113-15; Ex. NET-1500 at 67-77; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 108-19).

²⁵²⁷ CAPs IB at 36.

²⁵²⁸ *Id.* at 36-37.

7.8%.²⁵²⁹

712. Staff assert that Dr. Avera advances several inappropriate alternative financial models in an attempt to bolster his skewed DCF results.²⁵³⁰ They list each of Dr. Avera's alternative financial analyses and argue that the record demonstrates that each approach is flawed.²⁵³¹ Staff cite to Opinion No. 531 for the proposition that two of Dr. Avera's benchmark analyses, the non-utility proxy group and the natural gas pipeline ROEs, should be disregarded because they are not based on electric utilities.²⁵³² Staff argue that Dr. Avera's remaining studies should be afforded no weight because they are plagued by fatal flaws in methodology or data.²⁵³³

713. Staff and EMCOS argue that Dr. Avera developed a CAPM analysis using an excessive market risk premium and an inappropriate size adjustment, both of which unreasonably inflate his results.²⁵³⁴ They assert that Dr. Avera's ECAPM approach²⁵³⁵ is similarly flawed, while Dr. Woolridge's CAPM analysis, on the other hand, uses inputs that are consistent with CAPM advisories from leaders in the investment community.²⁵³⁶

714. Staff contends that although Dr. Avera testified his CAPM approach was consistent with the Commission's methodology approved in Opinion No. 531, he is incorrect.²⁵³⁷ Staff also points to Dr. Avera's hearing testimony and contends that he did not use the same CAPM methodology in this proceeding that he used in Docket No. EL11-66.²⁵³⁸ Staff argue that in Docket No. EL11-66 Dr. Avera estimated the total market risk premium based in part on a DCF analysis of S&P 500 dividend-paying stocks using IBES growth rates.²⁵³⁹ They argue that in this proceeding, Dr. Avera's total market risk premium is inflated because he estimated it based on a DCF analysis using an average of IBES growth rates and the unreliable and erratic higher *Value Line* "Annual Rates" growth rates.²⁵⁴⁰

715. Staff and EMCOS argue that advisory estimates of the prevailing 2014 total market risk premium by the investment community such as *Value Line* support the

²⁵²⁹ *Id.* at 42 (citing Exs. CAP-1 at 42, 53, CAP-7, CAP-19 at 75-76).

²⁵³⁰ Staff IB at 38.

²⁵³¹ *Id.*.

²⁵³² *Id.* at 39 (citing Opinion No. 531, 147 FERC ¶ 61,234 at n. 288).

²⁵³³ *Id.*

²⁵³⁴ *Id.* (citing Ex. S-1 at 86-92; Tr. 707-708, 821-828); EMCOS IB at 29.

²⁵³⁵ See Ex. NET-1300 at 42-44.

²⁵³⁶ Staff IB at 39 (citing Ex. S-1 at 87-90, 92).

²⁵³⁷ *Id.* (see Ex. NET-1300 at 32-35).

²⁵³⁸ *Id.* (citing Tr. 551-552).

²⁵³⁹ *Id.*

²⁵⁴⁰ *Id.* (citing Ex. NET-1306 at 1, n. (b); Ex. CAP-19 at 67-68).

conclusion that Dr. Avera's 2014 CAPM analysis yields unreasonably inflated results.²⁵⁴¹

716. EMCOS argue that the alternative methodologies that NETOs present in this case are flawed and unreliable, and therefore uninformative.²⁵⁴² EMCOS note that NETOs advanced ten alternative benchmarks. Of these ten, the Commission only considers four informative if properly conducted: the risk premium, CAPM, expected earnings and state authorized ROEs.²⁵⁴³ EMCOS state that, in light of the absence of any evidence to support the existence of market anomalies, Dr. Wilson followed the Commission's guidance in Opinion No. 531 and did not conduct any alternative analyses.²⁵⁴⁴

717. EMCOS note that Dr. Avera calculates the risk-free rate for his historical analyses using the average yield on 30-year Treasury bonds at December 2014.²⁵⁴⁵ They state that for or his projected analyses, Dr. Avera calculates the Risk-Free rate using 2015-2019 projected average yield on thirty-year Treasury bonds.²⁵⁴⁶ EMCOS explain that Dr. Avera asserts that this methodology reflects the expectations of investors in the market.²⁵⁴⁷ EMCOS conclude that Dr. Avera's projected analyses Risk-Free rate is further irrelevant because it does "not estimate the **current** cost of common equity" which is the exclusive concern of this proceeding.²⁵⁴⁸

718. EMCOS argue that Dr. Avera further inflates the results of his analyses by adding a size premium on the premise that financial research indicates the CAPM analyses do not accurately account "for observed differences in rates of return attributable to firm size."²⁵⁴⁹ They contend that Dr. Avera's use of the size adjustment is in direct conflict with the advice of Duff & Phelps, who explain the cost of capital needs to reflect the unique risk characteristics of the subject company, "rather than the risks exhibited by the typical firm."²⁵⁵⁰ EMCOS state that Dr. Avera's size adjustment is derived from the Center for Research in Security Prices at the University of Chicago's manipulation of 88 years' worth of stock market data.²⁵⁵¹ EMCOS explain that the Commission has long

²⁵⁴¹ *Id.* at 40 (citing Ex. S-1 at 88-89 and S-4 at 30-37); EMCOS IB at 29 (citing S-1 at 82-83, 85 at Table 1, 87-89; S-3 at 16).

²⁵⁴² EMCOS IB at 26.

²⁵⁴³ *Id.* at 26-27 (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 146 (finding CAPM, risk premium, expected earnings and state authorized ROEs to be "informative" but holding that in "considering these other methodologies, we do not depart from our use of the DCF methodology").

²⁵⁴⁴ *Id.* at 25.

²⁵⁴⁵ *Id.* at 29 (citing Ex. NET-1300 at 33:22-34:2).

²⁵⁴⁶ *Id.* (citing Ex. NET-1306, footnote (c); Ex. NET-1705, footnote (c)).

²⁵⁴⁷ *Id.*

²⁵⁴⁸ *Id.* (see Ex. S-1 at 86:19-87:2 (emphasis in original)).

²⁵⁴⁹ *Id.* (citing Ex. NET-1300 at 35:3-5).

²⁵⁵⁰ *Id.* at 29-30 (citing Ex. S-4 at 43).

²⁵⁵¹ *Id.* at 30 (citing Ex. NET-1327 at 113, Table 10, footnote 2; Tr. at 822: 16-20).

been wary of the use of data stretching over such a long time, saying:²⁵⁵²

The obvious problem with any risk premium approach is that it is so difficult to determine what the risk premium actually is. Not only is it unknown, but it is likely to vary over time as well. * * * * The fact remains...that the use of an equity risk premium which is based on an extended historical period . . . cannot be accepted at face value.

719. EMCOS argue that “The Commission has found that the problems of estimating the betas on which the CAPM methodology relies make betas, in isolation, unreliable predictors of risk.”²⁵⁵³ Beta is the measure of the variability of a stock’s price fluctuate in relation to the market as a whole.²⁵⁵⁴ In particular, “[t]he Commission has previously rejected a CAPM methodology in part, for developing the market risk premium using nearly 60 years of historical data because whatever historical relationships existed between debt and equity securities may no longer hold.”²⁵⁵⁵ EMCOS argue that the Commission’s concerns over the use of betas and risk premiums “based on an extended historical period” are amplified in the context of this proceeding, where Dr. Avera’s CAPM analysis relies to a material extent on betas and risk premiums derived from 88 years of data covering three separate stock markets. EMCOS contend that all of Dr. Avera’s CAPM analyses inappropriately rely on stock market-wide data, rather than data concerning electric utilities. For these reasons, EMCOS conclude that the risk premium, beta and “size adjustment” assumptions on which Dr. Avera’s presentations on CAPM rely are largely irrelevant to this proceeding’s effort to identify a just and reasonable ROE for a group of electric utilities.²⁵⁵⁶

720. Staff assert that substituting Dr. Woolridge’s CAPM calculation with the highest recent *ex ante* estimate of 5.50 percent from *Value Line* results in an ROE of approximately 8.12 percent for the NETOs.²⁵⁵⁷ They further argue that using *Value Line*’s historically high premium of 7.0 percent into the equation yields a CAPM ROE for the

²⁵⁵² *Generic Determination of Rate of Return on Common Equity for Public Utilities*, Order No. 420, FERC Stats. & Rags. ¶ 30,644 at 31,364 (1985).

²⁵⁵³ EMCOS IB at 30 (citing Ex. NET-1327 at 113, Table 10, footnote 2; Tr. at 822: 16-20 (Avera) (confirming CAPM betas derived from data running from January 1926-December 2013).

²⁵⁵⁴ Ex. NET-1500 at 73.

²⁵⁵⁵ EMCOS IB at 30 (citing *ITC Holdings Corp.*, 121 FERC ¶ 61,229 at P 43 n.34 (2007)).

²⁵⁵⁶ *Id.* at 31 (see Ex. NET-1306, nn. (a) and (b); NET-1705, nn. (a) and (b). *See also* Opinion No. 531, 147 FERC ¶ 61,234, at P 146 n. 288 (“We will not consider the non-utility DCF analysis or the natural gas pipeline ROE analysis because those methodologies are not based on electric utilities”).

²⁵⁵⁷ Staff IB at 40 (citing Ex. S-1 at 89-90).

NETOs of 9.25 percent.²⁵⁵⁸ Staff believes that these CAPM results corroborate Trial Staff's midpoint DCF results.²⁵⁵⁹

721. Staff rebuts NETOs contention that Dr. Woolridge's and Ms. Joe's arguments that Dr. Avera should not have used a size adjustment were also specifically rejected in Opinion No. 531-B.²⁵⁶⁰ They cite Opinion No. 531-B at P 117, where the Commission stated that it was "not persuaded that it was inappropriate to use a size adjustment in this case."²⁵⁶¹ Staff states that the record in this proceeding shows that Dr. Avera inflated his CAPM results by inappropriately applying size premiums in a way not advised by leading experts on the use of those size premiums.²⁵⁶²

722. Staff states that Duff & Phelps advises practitioners to examine the subject regulated utility's relative risk by examining its operating margin and variability of operating margin. These two factors help to quantify how much less or more from the typical size premium the cost of capital of the subject regulated utility should be. Duff & Phelps concludes that the cost of capital needs to reflect the risk characteristics of the subject company, such as variability in operating margin cash flows, rather than risks of the typical firm in the asset size category.²⁵⁶³ Staff states that Dr. Avera did not follow this and thus assumed away risk differences between utilities and the rest of the stock market by inappropriately applying Morningstar size premiums.²⁵⁶⁴

C. Findings and Conclusions

723. CAPs argue that the NETOs are now 'arguing differently' than they did in a prior case regarding CAPM.²⁵⁶⁵ However, in that 2005 testimony,²⁵⁶⁶ Dr. Avera stated that the DCF result sets the ROE, and Dr. Avera only rejected the CAPM because it was improperly calculated by Dr. Wilson.

724. Dr. Avera opines that "the only difference in adding Value Line is 8 basis points, 8/100 of a percent,"²⁵⁶⁷ and NETOs show that "Dr. Avera [has] presented all details necessary for the Commission to remove the impact of Value Line growth rates from his CAPM analysis, should the Commission wish to do so. NETOs assert that disregarding

²⁵⁵⁸ *Id.* (citing Ex. S-3 at 16 (Schedule 3)).

²⁵⁵⁹ *Id.*

²⁵⁶⁰ *Id.* at 41 (citing Ex. NET-1500 at 67-70 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 108-119)).

²⁵⁶¹ *Id.*

²⁵⁶² *Id.* (citing Ex. S-1 at 90-92 and S-4 at 42-43; Tr. 821-828).

²⁵⁶³ *Id.* (citing Ex. S-4 at 42-43).

²⁵⁶⁴ *Id.* (citing Ex. S-1 at 91-92).

²⁵⁶⁵ See NETOs RB at 40 (citing CAPs IB at 35).

²⁵⁶⁶ Accession No. 20050329-0187.

²⁵⁶⁷ NETOs RB at 42, n.52; Tr. at 706:2-9.

Value Line growth data in applying the CAPM approach would have no impact on Dr. Avera's conclusion that the DCF analysis midpoint fails to meet the *Hope* and *Bluefield* standards."²⁵⁶⁸

725. The undersigned substantially accepts Dr. Avera's CAPM analysis. However, consistent with Opinion No. 531, the undersigned rejects Dr. Avera's use of Value Line growth rates. The key here is that the DCF analysis midpoint fails to meet the *Hope* and *Bluefield* standards. Even with the removal of 8 basis points from Dr. Avera's CAPM, the midpoint fails to meet *Hope* and *Bluefield*.

726. CAPs and Staff claim that Dr. Avera departed from the CAPM methodology approved in Opinion No. 531, and that the NETOs' CAPM analysis should therefore be rejected.²⁵⁶⁹ The undersigned finds to the contrary. The only difference is that Dr. Avera refined his estimation of the market rate of return to include the use of Value Line growth rates, along with IBES, in a manner consistent with his application of the two-step DCF model, and based on the language in Opinion Nos. 531 and 531-B regarding the Value Line growth rate being useful.²⁵⁷⁰

727. The CAPs do not argue that Value Line data is suspect.²⁵⁷¹ Staff, however, makes the statement that Value Line uses "unreliable, erratic" growth rates.²⁵⁷² This statement is unsupported by Staff, and not supported by Commission precedent.²⁵⁷³ The use of Value Line data is a noncontroversial change that improves the CAPM analysis and is consistent with Opinion No. 531.

728. CAPs argue that they have introduced "new evidence" in this case to call Dr. Avera's CAPM analysis into question. CAPs argue that their new evidence includes the time period on which the NETOs' based their CAPM analysis, as well as the growth rate of the S&P 500 stock index.²⁵⁷⁴ NETOs respond that, under the Commission's *res judicata* decisions, the CAPs are not permitted to insert new arguments and evidence unless that evidence and the resulting arguments were not available to be made in the prior case.²⁵⁷⁵ The undersigned agrees with NETOs on substantive grounds, but disagrees with their *res judicata* argument.

729. Staff and the CAPs cite to a Duff & Phelps' study to suggest that the market equity return used by Dr. Avera in the CAPM study is too high.²⁵⁷⁶ However, NETOs assert that

²⁵⁶⁸ *Id.* at 41-42.

²⁵⁶⁹ *Id.* at 42 (citing CAPs IB at 43; Staff IB at 39).

²⁵⁷⁰ *Id.* (citing Tr. 551:20-24; NETOs IB at 25-26).

²⁵⁷¹ NETOs IB at 18-19, 26.

²⁵⁷² Staff IB at 39.

²⁵⁷³ See NETOs IB at 18-19, 26.

²⁵⁷⁴ CAPs IB at 45.

²⁵⁷⁵ NETOs IB at 6 n.6.

²⁵⁷⁶ Staff IB at 40; CAPs IB at 44

Dr. Avera demonstrated that the risk premiums associated with this publication are based on historical data dating back to 1926 – information that is neither current nor *ex ante*, as required by Opinion No. 531.²⁵⁷⁷ The Duff & Phelps risk premium was cited by Ms. Joe at page 37 of Exhibit S-4, (www.duffandphelps.com/CostofCapital), and the first link on that website²⁵⁷⁸ provides a link to the underlying study. The documentation contained on page 7 indicates that the Duff & Phelps risk premium was based on a review of unidentified studies in the academic and financial literature as of March 2013. The undersigned agrees with NETOs that it cannot represent an *ex ante* study reflecting investors' forward-looking expectations applicable to the periods at issue in this proceeding.²⁵⁷⁹

730. The undersigned agrees with NETOs' assertion that Dr. Woolridge presented a flawed application of the CAPM using a methodology that the Commission has already rejected.²⁵⁸⁰ The Commission rejected Dr. Woolridge's and Ms. Joe's CAPM approach in Opinion No. 531-B because of its unreliable, backward-looking assumptions.²⁵⁸¹ Although Ms. Joe claims she did not present a CAPM analysis in EL11-66,²⁵⁸² Opinion No. 531 examined "Trial Staff's CAPM study" and rejected it, along with Dr. Woolridge's CAPM analysis.²⁵⁸³ Thus, the CAPs' and Staff's arguments to apply their backward-looking analyses is rejected.²⁵⁸⁴

2.2.1.3. Electric Utility Risk Premium Approach

A. NETOs

731. NETOs assert that the Commission clearly accepted Dr. Avera's risk premium approach in Complaint I.²⁵⁸⁵ NETOs state that risk premium methods directly estimate

²⁵⁷⁷ See NETOs RB at 43 (citing NET-1500 at 70; Opinion 531-B, 150 FERC ¶ 61,165 at PP 108-09; *see also* Tr. 708:8-9 (Avera) ("No, I didn't say it was necessarily a forward-looking *ex ante*")).

²⁵⁷⁸ <http://www.duffandphelps.com/SiteCollectionDocuments/Articles/DP%20Client%20Alert%20%20ERP%20and%20FRF%20Recommendation%2003%2020%2013%20FINAL4.pdf>.

²⁵⁷⁹ See NETOs RB at 43.

²⁵⁸⁰ See *Id.* (citing Ex. CAP-1 at 36-42; Ex. CAP-7; Ex. CAP-54 at 2, 13, 15; Ex. CAP-70; S-1 at 14, 87-89. *See also* Ex. NET-1500 at 67-77; Ex. NET-1300 at 12, 111-19).

²⁵⁸¹ See Ex. NET-1500 at 67-77; Opinion 531-B, 150 FERC ¶ 61,165 at PP 108-19 (noting, *inter alia*, that Dr. Woolridge's exhibits "pre-date the Great Recession").

²⁵⁸² Staff IB at 39.

²⁵⁸³ Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 118-19.

²⁵⁸⁴ See NETOs RB at 44 (citing CAPs IB at 42-43; Staff IB at 39-40).

²⁵⁸⁵ NETOs IB at 26 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-47; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 97-101; Ex. NET-1300 at 27-29).

investors' required rate of return by adding an equity risk premium to observable bond yields.²⁵⁸⁶ NETOs state that applying the utility risk premium approach based on Commission-approved ROEs for electric utilities implies an equity risk premium of 5.46% for electric utilities, which produces an implied ROE point estimate of 10.64%.²⁵⁸⁷

732. NETOs argue that witnesses for CAPs and Staff do not point to any deficiency in Dr. Avera's risk premium analysis. Rather, NETOs assert that witnesses for the CAPs and Staff merely recycle arguments against the risk premium analysis that were rejected in Opinion No. 531. According to NETOs, the main argument is that Dr. Avera wrongly used settlement outcomes in his analysis.²⁵⁸⁸ NETOs assert that Dr. Woolridge admits that Dr. Avera's risk premium analysis in this proceeding largely relies on the same settlements the Commission approved for use in Complaint I.²⁵⁸⁹ NETOs state that because the Commission found such reliance to be appropriate; Dr. Woolridge's and Ms. Joe's argument against the use of settlements in the risk premium analysis is barred by *res judicata*. NETOs assert that Dr. Woolridge has testified in other forums that reliance on allowed ROE data based on settlements wouldn't bias the results "one way or the other."²⁵⁹⁰

733. NETOs disagree with Dr. Woolridge's contention that there are "false data points" included in Dr. Avera's risk premium analysis related to reliance on incentive ROE proceedings and the continuation of a previously approved base ROE.²⁵⁹¹ NETOs also disagree with CAPs' arguments over the supposed impact of "regulatory lag."²⁵⁹² NETOs assert that both of these arguments have already been rejected by the Commission in Opinion No. 531-B.²⁵⁹³ NETOs contend that Ms. Joe's assertions that Dr. Avera's risk premium analysis contains "invalid" data, and that the ROEs examined are not "objective market data" are similarly unsupported.²⁵⁹⁴ According to NETOs, these arguments were rejected in Opinion No. 531 when the Commission accepted Dr. Avera's analysis using the same data sources.²⁵⁹⁵

²⁵⁸⁶ *Id.* (citing Ex. NET-1300 at 27).

²⁵⁸⁷ *Id.* (citing Ex. NET-1300 at 7-8; Ex. NET-1316 at 1; Ex. NET-1313 at 1).

²⁵⁸⁸ *Id.* at 26-27 (see Ex. CAP-19 at 110-13; Ex. S-1 at 10, 15-16, 93-98; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 86).

²⁵⁸⁹ *Id.* at 27 (citing Ex. NET-1920, Ex. NET-1305, Ex. NET-1316, and Ex. NET-1704; Ex. CAP-19 at 112-19; Tr. 162:15-163:10, 163:21-164:3).

²⁵⁹⁰ *Id.* (citing Tr. 165:5-18).

²⁵⁹¹ *Id.* (citing Ex. CAP-19 at 116-126).

²⁵⁹² *Id.* (citing Ex. CAP-19 at 126-27).

²⁵⁹³ *Id.* (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 98, n.204, n.205).

²⁵⁹⁴ *Id.* (citing Ex. S-1 at 93-98).

²⁵⁹⁵ *Id.* (see Opinion No. 531, 147 FERC ¶ 61,234 at PP 107, 147 n.290; Opinion 531-B, 150 FERC ¶ 61,165 at PP 50 n.107, 97-101; see also S-1 at 6; NET-1500 at 64-67).

B. Participants

734. CAPs cite Dr. Woolridge's rebuttal testimony, which includes an analysis of what he views as deficiencies in Dr. Avera's risk premium underpinnings.²⁵⁹⁶ It spans 27 pages along with multiple supporting exhibits and updates. However, their argument is not clearly presented.

735. EMCOS argue that Dr. Avera developed his risk premium analyses using estimates of equity risk premiums for utilities using Value Line's surveys of previously authorized ROEs.²⁵⁹⁷ EMCOS and Staff contend that Dr. Avera's risk premium analyses are neither designed nor conducted in such a way as to provide information useful to the determination of a just and reasonable ROE.²⁵⁹⁸

736. EMCOS argue that Dr. Avera's analyses are not market-oriented and use stale data that does not represent the Commission's best estimate of the current market cost of equity for the time periods to which they are applied.²⁵⁹⁹ EMCOS also argue that Dr. Avera's choice of Commission cases upwardly distorts his results. Specifically, EMCOS and Staff assert that Dr. Avera selectively chooses 26 cases that do not involve Commission authorizations of base ROEs.²⁶⁰⁰ These 26 have a weighted average Base ROE of 11.08 percent compared to the weighted average Base ROE of 10.55 percent for the remaining 51 cases.²⁶⁰¹ EMCOS believe that Dr. Avera's reliance on these decisions fatally undercuts the premise of his basic argument, as these 26 decisions do not represent Base ROEs authorized by the Commission.²⁶⁰² As a result, EMCOS conclude that NETOs' risk premium analyses do not accurately reflect current capital market conditions or the current cost of equity capital.²⁶⁰³

737. Staff cites the March 2014 edition of *Value Line* Investment Advice, which estimated market equity risk premium at about 5.5 percent with a total expected rate of return on equity of 8.5 percent.²⁶⁰⁴ Staff also cites the *American Appraisal Equity Risk Premium Quarterly*, which estimated a 6.0 percent equity risk premium as of April 2014, but noted that another forward-looking approach to calculating expected equity risk premium developed by a professor of finance at New York University estimated a 5.38

²⁵⁹⁶ CAPs RB at 49 (citing Exs. CAP-19 at 106-133; CAP-48 through CAP-51; CAP-64 through CAP-66).

²⁵⁹⁷ EMCOS IB at 32 (citing Ex. NET-1300 at 28).

²⁵⁹⁸ *Id.*; Staff IB at 41.

²⁵⁹⁹ *Id.* (citing Ex. S-1 at 96).

²⁶⁰⁰ *Id.* at 32-33; Staff IB at 42 (citing Ex. S-1 at 93-98 and Ex. S-3 at 18).

²⁶⁰¹ *Id.* at 33; Staff IB at 42 (citing Ex. S-1 at 95).

²⁶⁰² *Id.* (citing Ex. S-1 at 95).

²⁶⁰³ *Id.*

²⁶⁰⁴ Staff IB at 40 (citing Exs. S-1 at 88 and S-4 at 30-31).

percent market risk premium at the end of June 2014.²⁶⁰⁵ Staff note that Duff & Phelps, LLC (Duff & Phelps) recommended a going-forward “until further notice” market risk premium of 5.0 percent and indicated a total market ROE of 9.0 percent in March 2014.²⁶⁰⁶ Staff argue that taken together these estimates are far lower than Dr. Avera’s estimated market equity risk premiums of 7.9 or 8.7 percent and his market rate of return on equity of 12.5 percent.²⁶⁰⁷

738. Staff states that many of these cases with invalid data are proceedings where only transmission incentives were involved.²⁶⁰⁸ Staff asserts that the base ROEs for those proceedings were not the result of Commission action in those proceedings, but instead were imputed by Dr. Avera in his Exhibit NET-1305.²⁶⁰⁹ Staff argues that Dr. Avera’s risk premiums are based on past actions of other regulators and do not consider objective market data.²⁶¹⁰

739. Staff contends that Dr. Avera did not use the same risk premium method that was given limited weight in Complaint I.²⁶¹¹ Staff argues that the Commission in Opinion Nos. 531 and 531-B placed some weight on that earlier risk premium study only because the record of that proceeding was not complete in demonstrating the flaws in that approach.²⁶¹² Staff asserted that they have completed the record in this proceeding by further exposing the flaws in Dr. Avera’s risk premium approach as discussed above.²⁶¹³

C. Findings and Conclusions

740. CAPs “re-examine” the evidence that Dr. Avera submitted in EL11-66 to support the risk premium analysis²⁶¹⁴ and claim that this “re-examination shows that the risk premium evidence is “false.”²⁶¹⁵ CAPs claim that Opinion No. 531 “invited such re-examination” of this evidence.²⁶¹⁶ However, the Commission said no such thing in Opinion No. 531-B. As NETOs point out, the Commission stated that reliance on ROEs established in past proceedings “does not affect the reliability of a risk premium

²⁶⁰⁵ *Id.* (citing Exs. S-1 at 88 and S-4 at 32-36).

²⁶⁰⁶ *Id.* (citing Exs. S-1 at 89 and S-4 at 37).

²⁶⁰⁷ *Id.* (citing Ex. S-1 at 88).

²⁶⁰⁸ *Id.* at 42 (citing Ex. S-1 at 96 and Ex. S-3 at 21-22 (Schedule 3)).

²⁶⁰⁹ *Id.* (citing Ex. S-1 at 96-97).

²⁶¹⁰ *Id.* (citing Ex. S-1 at 98).

²⁶¹¹ *Id.* (compare Ex. NET-306 in Docket No. EL11-66 with Ex. No. NET-1305; see also Ex. CAP-19 at 106-107).

²⁶¹² *Id.* at 43 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 146; Opinion No. 531-B, 150 FERC ¶ 61,165 at n.205, P 99).

²⁶¹³ *Id.*

²⁶¹⁴ See NETOs IB at 27.

²⁶¹⁵ CAPs IB at 47-48 (citing Opinion 531-B, 150 FERC ¶ 61,165 at P 98 n.205).

²⁶¹⁶ *Id.*

analysis,” and rejected the CAPs’ allegations that the NETOs’ risk premium analysis was “flawed because it assigned arbitrary dates to the regulatory decisions on which it was based.”²⁶¹⁷ The CAPs repeat the same argument here, alleging that other dates were arbitrary and that the whole risk premium analysis should therefore be disregarded.²⁶¹⁸ Importantly, the CAPs do not dispute that the cases used by Dr. Avera in this risk premium analysis were also used and evaluated by the Commission in Opinions Nos. 531 and 531-B.²⁶¹⁹ The CAPs make the sweeping statement that there are “indeterminate effects” to such issues; for example, one case was dated November 2009 versus the January 2010 date in Exhibit NET-1704.²⁶²⁰ The CAPs state that these alleged differences, which they failed to litigate before, “alter[], in non-linear ways, the relationship between each recycled data point and the regression analysis.”²⁶²¹

741. The undersigned finds that CAPS’ argument is non-specific and by its nature prevents precise analysis. CAPS’ vague arguments prevent a reasoned review and response. NETOs’ risk premium analysis relies on the same data as in EL11-66, but refines the data to better accommodate the timing of the Commission’s decisions and include more recent findings.²⁶²²

2.2.1.4 Expected Earnings Analysis

A. NETOs

742. NETOs assert that the expected earnings analysis was reviewed and approved by the Commission in Opinion No. 531.²⁶²³ NETOs state that the expected earnings analysis is based upon a simple, conceptual principle that when evaluating two investments of comparable risk, investors will choose the alternative with the higher expected return.²⁶²⁴ NETOs assert that, as in Complaint I, Dr. Avera’s expected earnings approach focused exclusively on forward-looking projections, not backward looking historical data.²⁶²⁵ NETOs assert that the expected earnings approach produces an ROE range of 7.61% to 17.55% with a midpoint of 12.58% for the Complaint II period.²⁶²⁶

743. NETOs disagree with Ms. Joe’s contention that Dr. Avera’s comparable earnings

²⁶¹⁷ NETOs RB at 44 (citing Opinion 531-B, 150 FERC ¶ 61,165 at P 98).

²⁶¹⁸ *Id.*

²⁶¹⁹ *Id.*

²⁶²⁰ *Id.*

²⁶²¹ *Id.* at 47 n.218, 46-48.

²⁶²² See NETOs IB at 26-27; Ex. CAP-20 at 68:1-9.

²⁶²³ *Id.* at 27 (see Ex. NET-1300 at 36-39; Opinion No. 531, 147 FERC ¶ 61,234 at PP 146-47; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 120, 125-32).

²⁶²⁴ *Id.* (citing Ex. NET- 1300 at 36-37).

²⁶²⁵ *Id.* (citing Ex. NET- 1300 at 38).

²⁶²⁶ *Id.* at 27-28 (citing Ex. NET-1313 at 1).

analysis provides for “circular” ratemaking and that the analysis conflicts with finance principles.²⁶²⁷ NETOs argue that this contention reprises issues raised in the EL11-66 proceedings and is contrary to the Commission’s findings in Opinion No. 531.²⁶²⁸ NETOs assert that the comparable earnings approach is routinely implemented through an examination of earned and expected rates of return for other utilities of comparable risk. NETOs assert that this practice that has been endorsed by multiple regulators and the Commission.²⁶²⁹

744. NETOs assert that Dr. Woolridge’s questioning of the use of Value Line’s projections for return on book equity in the expected earnings analysis²⁶³⁰ is also inconsistent with the Commission’s findings.²⁶³¹ NETOs argue that Dr. Woolridge’s critique of Value Line does not hold water, given that Dr. Woolridge used the same Value Line data applied by Dr. Avera in recent testimony before the Massachusetts DPU and KCC.²⁶³² NETOs point out that Dr. Woolridge admits that Value Line demonstrates little if any inherent upward bias.²⁶³³

B. Participants

745. CAPs argue that utility expected earnings are increased by low interest rates, so referencing them does not jibe with NETOs’ theory that interest rates are anomalously low.²⁶³⁴ CAPs contend that Dr. Avera’s expected earnings medians were considered in Opinion 531 and are now below the existing Base ROE, for both periods.²⁶³⁵ CAPs argue that NETOs prefer to reference the midpoint, but doing so emphasizes ITC Holdings’ expected profits from incentive adders, and thus does not fairly inform the Base ROE.²⁶³⁶ CAPs contend that expected earnings represent expected return on book equity, and thus bear little relation to investors’ required return on the equity that they purchase at market prices.²⁶³⁷ CAPs assert that the basis on which NETOs recommend reference to return on book equity is better quantified by considering expected return on asset book value.

²⁶²⁷ *Id.* at 28 (see Ex. S-1 at 11, 16, 98-100).

²⁶²⁸ *Id.* (citing Ex. NET-1500 at 77-80; Opinion No. 531, 147 FERC ¶ 61,234 at P 147; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 120).

²⁶²⁹ *Id.* (citing Ex. NET-1500 at 77-79; Opinion No. 531, 147 FERC ¶ 61,234 at P 147).

²⁶³⁰ CAP-19 at 137-38.

²⁶³¹ NETOs IB at 28 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at P 126).

²⁶³² *Id.* (citing Ex. NET-1903 at 3-4, Ex. NET- 1904 at 3, Tr. 64:19-24, 65:9-16, 66:6-9, 66:20-25).

²⁶³³ *Id.* (citing Tr. 63:20-22 (“there’s nothing really published that demonstrates an upward bias in Value Line data.”)).

²⁶³⁴ CAPs RB at 50 (see Ex. CAP-19 at 138-39).

²⁶³⁵ *Id.*

²⁶³⁶ *Id.* (see Exs. NET-1318, NET-1706; Tr. 760:1-15).

²⁶³⁷ *Id.* at 50-51 (see CAPs IB at 49 & n.227-28).

CAPs claim that Dr. Woolridge undertook that study and found markedly lower benchmark returns.²⁶³⁸

746. EMCOS and Staff argue that the expected earnings approach is an accounting-oriented approach to estimate the cost of equity.²⁶³⁹ EMCOS and Staff assert that the Commission has held that “the relationship between risk and accounting rates of return is not clear” because “[c]ompanies and industries can earn book returns which are much higher or lower than their apparent risk would seem to dictate.”²⁶⁴⁰

747. EMCOS and Staff argue that accounting-based methodologies such as Dr. Avera’s expected earnings approach “are not reliable measures of the current market prices that are determined in competitive capital markets.”²⁶⁴¹ EMCOS assert that Dr. Avera’s expected earnings approach references “rates of return available from alternative investments of comparable risk [to] provide an important benchmark in assessing the return necessary to assure confidence in the financial integrity of a firm and its ability to attract capital.”²⁶⁴² Based on this premise, Dr. Avera uses Value Line estimates of the projected average ROE for his National Group proxy group – a group of regulated electric utilities – for his benchmark of alternative investments of comparable risk.²⁶⁴³ EMCOS contend that Dr. Avera’s expected earnings approach creates “a circular road map” to calculating a company’s future earned returns.²⁶⁴⁴ EMCOS argue that this approach is the direct opposite of a correct expected earnings analysis which requires alternative investments of comparable risk to be a sample of unregulated companies.²⁶⁴⁵ EMCOS further argue that Dr. Avera fails to ensure his selected group is of a comparable risk by including the entire electric utility industry recognized by Value Line.²⁶⁴⁶ EMCOS contend that such a method improperly boosts his results to 12.58 percent because his proxy group sample includes utilities that have greater risk than the NETOs.²⁶⁴⁷ For these reasons, EMCOS conclude that Dr. Avera’s expected earnings analyses are upwardly biased, unreliable, uninformative, and should be rejected.²⁶⁴⁸

²⁶³⁸ *Id.* at 51.

²⁶³⁹ EMCOS IB at 33 (citing Ex. S-1 at 99); Staff IB at 43 (citing Ex. S-1 at 98-102).

²⁶⁴⁰ *Id.* (citing Order No. 420, FERC Stats. & Regs. ¶ 30,644 at 31,367); Staff IB at 43 (citing Ex. S-1 at 98-102).

²⁶⁴¹ *Id.* at 34 (citing Order No. 420, FERC Stats. & Regs. ¶ 30,644 at 31,367); Staff IB at 43.

²⁶⁴² *Id.* (citing Ex. NET-1300 at 36).

²⁶⁴³ *Id.* (citing Ex. NET-1300 at 37).

²⁶⁴⁴ *Id.* (citing Ex. S-1 at 101).

²⁶⁴⁵ *Id.* (citing Ex. S-100 at 8-10).

²⁶⁴⁶ *Id.* at 34-35 (citing Ex. S-1 at 102; Tr. at 843:18-24).

²⁶⁴⁷ *Id.* at 35 (citing Ex. S-1 at 102).

²⁶⁴⁸ *Id.*

C. Findings and Conclusions

748. CAPs argue that the midpoints of Dr. Avera's expected earnings arrays cannot reasonably be relied upon.²⁶⁴⁹ In support, CAPs state that Dominion, Vectren, and ITC stand out for their allegedly exceptionally highly leveraged capital structures.²⁶⁵⁰ The undersigned finds that this argument is unsupported for multiple reasons. Dr. Avera's midpoints can be reasonably relied upon. However, the undersigned's reliance on the calculations provided by Mr. Green seems to render CAPs' argument moot.

749. Although this is a new case with new time periods, in Opinion No. 531-B²⁶⁵¹, the Commission previously rejected CAPs' arguments and addressed CAPs' same attacks regarding NETOs' use of Dominion. Additionally, the Commission has rejected arguments that participation in non-regulated activities is a relevant consideration in its application of financial methods to estimate a fair ROE.²⁶⁵² Vectren has routinely been accepted by the Commission in proxy groups used to apply the DCF model to estimate a fair ROE, and there is no basis for the CAPs' allegation that reference to Vectren would somehow distort the results of the expected earnings approach.²⁶⁵³

750. The undersigned also rejects CAPS' "median" argument. NETOs contend, and the undersigned agrees, that even accepting for the sake of argument the relevance of the CAPs' reference to the median, their contention that the results of this method would support "substantial ROE reductions" is exaggerated and misguided.²⁶⁵⁴ The Commission's reference to the results of the expected earnings analysis is restricted to evaluating the DCF midpoint and informing the Commission's placement of the ROE within the DCF range, in conjunction with the other benchmark methods.²⁶⁵⁵ Even the median results demonstrate that the CAPs' recommendations are unjust and unreasonable and support an ROE from the upper end of the zone.²⁶⁵⁶

751. The fact that expected earned returns for ITC or Dominion may include the impact of certain ROE incentives does not undermine the relevance of the expected earnings analysis as one benchmark guide to the forward-looking returns that investors expect to

²⁶⁴⁹ CAPs IB at 48-49.

²⁶⁵⁰ *Id.*

²⁶⁵¹ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 131.

²⁶⁵² See NETOs RB at 45 (see, e.g., *Midwest Indep. Transmission Sys. Operator*, 100 FERC ¶ 61,292 at P 12 (2002); *Pepco Holdings, Inc.*, 124 FERC ¶ 61,176 at P 118 (2008); *Pepco Holdings, Inc.*, 125 FERC ¶ 61,130 at P 93 (2008)).

²⁶⁵³ See, e.g., Opinion No. 531, 147 FERC ¶ 61,234 at Appendix; *Midwest Indep. Transmission Sys. Operator*, 106 FERC ¶ 61,302 at P 12 (2004).

²⁶⁵⁴ NETOs RB at 46 (citing CAPs IB at 48).

²⁶⁵⁵ *Id.*

²⁶⁵⁶ *Id.* (citing CAPs IB at 59 (admitting that the median DCF results need to be "leavened"))).

earn on investments of comparable risks.²⁶⁵⁷ The CAPs engage in a myopic focus on values at the upper end of the range, ignoring the impact of ROE penalties, regulatory lag, or other factors that can cause the expected earned ROEs included in Dr. Avera's analysis to fall well below a just and reasonable ROE.²⁶⁵⁸

752. The undersigned finds that CAPs' allegation that capital structure ratios specific to ITC and Dominion should be considered in the Commission's reference to the expected earnings benchmark is baseless.²⁶⁵⁹ Value Line's projections for earned rates of return are indicative of investors' expectations for the actual earnings on book value for the utilities in the proxy group, which are naturally dependent in part on approved rates for the various operating utilities.²⁶⁶⁰ While these approved rates in many instances would include a regulatory finding as to capital structure, this is only one of many considerations that may impact the charges paid by customers and investors' earnings expectations and risk perceptions.²⁶⁶¹ There is no logical rationale to support the CAPs' attempt to parse the forward-looking projections for two specific firms based on a general reference to one aspect of these utilities' rates while ignoring all others.

753. CAPs and EMCOS argue that Ms. Lapson's state commission ROE analysis should have compared the NETOs to a distribution-only companies' group, rather than to integrated utilities.²⁶⁶² EMCOS and the CAPS referred to Opinion No. 531 at P 149 as an indication that the NETOs' risk should be compared to state-regulated distribution companies.²⁶⁶³ The undersigned finds that this argument is incorrect; the use of only non-integrated utilities for the state commission ROE analysis is unsupported.

754. First, Ms. Lapson has confirmed that the methodology she used for her state commission ROE analysis in the instant proceeding is the same methodology she applied in Docket No. EL11-66; that analysis included the use of integrated utilities.²⁶⁶⁴ Moreover, the CAPs and EMCOS disregard statements in the cited portions of Opinion Nos. 531 and 531-B that the Commission was referring to "investments" in transmission or distribution, rather than company-specific analysis.²⁶⁶⁵ Most importantly, the 9.8

²⁶⁵⁷ *Id.*

²⁶⁵⁸ *See, e.g.*, NET-1300 at 62-63.

²⁶⁵⁹ *See* CAPs IB at 49.

²⁶⁶⁰ *See* Ex. NET-1300 at 71; NETOs RB at 46.

²⁶⁶¹ *See* Ex. NET-1300 at 126-127; Ex. NET-1500 at 79; NETOs RB at 46.

²⁶⁶² EMCOS IB at 39-40, 51; CAPs IB at 56-57.

²⁶⁶³ *Id.*; CAPs IB at 56-57.

²⁶⁶⁴ NETOs RB at 49; Ex. NET-1400 at 43.

²⁶⁶⁵ Opinion No. 531, 147 FERC ¶ 61,234 at P 149 (referring to "electric infrastructure investment, particularly state-regulated electric distribution"); Opinion 531-B, 150 FERC ¶ 61,165 at PP 84-85. *See also* Tr. at 524:17-525:4 (Lapson) (noting that the Opinion Nos. 531 and 531-B referenced "investments in transmission or distribution" rather than "the context of transmission companies or distribution companies").

percent to 10.74 percent range of allowed ROEs selected by the Commission as the relevant benchmark in Opinion No. 531 reflects data for *integrated* utilities.²⁶⁶⁶ As a result, Ms. Lapson's comparisons with allowed ROEs for integrated utilities are consistent with Opinion No. 531, while the CAPs' and EMCOS's reference to distribution-only companies contradicts the Commission's prior findings.²⁶⁶⁷

755. The undersigned also agrees with NETOs that it would also be logically inconsistent to review only distribution companies because this case relates only to the transmission activities and assets of the NETOs, and transmission is riskier than state-regulated distribution.²⁶⁶⁸

2.2.1.5 State Determined ROEs

A. NETOs

756. NETOs state that, as in EL11-66, Ms. Lapson examined state commission-authorized ROEs of electric utilities.²⁶⁶⁹ NETOs assert that Ms. Lapson found that the proposed ROE findings of Drs. Wilson and Woolridge were below or near the lowest of the state-commission authorized ROEs in the 24 months prior to the end of the Complaint II refund period.²⁶⁷⁰ NETOs further assert that Opinion No. 531 approved the consideration of state commission ROEs presented by Ms. Lapson, using the same methodology she used in this case, as a benchmark.²⁶⁷¹ NETOs state that the range of state commission-authorized ROEs for integrated electric utilities is 9.25%-10.95%.²⁶⁷² NETOs argue that the Commission has held that the ROE for electric transmission should

²⁶⁶⁶ NETOs RB at 48 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 148, referencing Ex. NET-400 at 26-27, which noted that, of 72 cases involving integrated utilities, "91% of all the observations lie in the range of 9.8% to 10.74%." Ex. NET-400 at 26. Ms. Lapson further noted that after including distribution-only utilities together with integrated companies, "85% of the decisions were in the range of 9.8% to 10.74%." Ex. NET-400 at 27.

²⁶⁶⁷ *Id.* at 48.

²⁶⁶⁸ *See Id.* at 49 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 149; Opinion 531-B, 150 FERC ¶ 61,165 at P 84).

²⁶⁶⁹ NETOs IB at 28 (citing Ex. NET-1400 at 37; Ex. NET-1600 at 31; Ex. NET-1802; Tr. 970:2-7).

²⁶⁷⁰ *Id.* (citing Ex. NET-1400 at 7-8, 53-54; Ex. NET-1404).

²⁶⁷¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 148-50; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 86-88; Ex. NET-1400 at 43 (noting that the methodology applied in this case is the same as that used in EL11-66); Tr. 513:6-514:2 (noting that her analysis in this case was the same as that adopted in EL11-66); Tr. 515:13-25 (noting that her state ROE analysis for both this case and EL11-66 included state ROE results that resulted from litigation, stipulations, and/or settlements).

²⁶⁷² *Id.* at 29 (citing Ex. NET-1400 at 43-45, 49; Ex. NET-1404 at 1).

be higher than state-determined ROEs because transmission is riskier than state-regulated distribution.²⁶⁷³

757. According to NETOs, Dr. Avera applied the risk premium approach using ROEs authorized for electric utilities by state regulatory commissions across the U.S. using a consistent third-party data set from RRA that is widely referenced as an accurate guide to allowed ROEs.²⁶⁷⁴ NETOs state that this new analysis produces an implied ROE point estimate of 10.36% for the Complaint II refund period.²⁶⁷⁵ NETOs provide that Dr. Avera referenced the state-approved ROEs in effect for the utilities in his proxy group, which fell in the range from 8.72% to 11.48%, with a midpoint of 10.10%.²⁶⁷⁶ NETOs contend that, as in Opinion No. 531, the significant discrepancy between state-approved ROEs for the proxy group and the 9.17% DCF midpoint (based upon Dr. Avera's calculations using IBES growth rates) serves as an additional indicator that an upward adjustment is necessary to satisfy *Hope* and *Bluefield*.²⁶⁷⁷

758. NETOs assert that Participants oppose the consideration of state commission-authorized ROEs.²⁶⁷⁸ NETOs contend that Participants are recycling the arguments that were made and rejected in Opinion No. 531.²⁶⁷⁹ NETOs state that Participants' testimony challenging the use of state ROEs is a compilation of reasons why they disagree with Opinion No. 531, and not an analysis of whether Ms. Lapson or Dr. Avera committed errors in their analyses.²⁶⁸⁰ For example, NETOs point to Dr. Wilson's stated reason that his reason for opposition was his belief that state commission decisions are not a sound basis for the Commission's ROE determination.²⁶⁸¹ NETOs assert that Ms. Lapson did not deviate from the Commission-approved methodology. NETOs state that Dr. Wilson admitted that he does not contend that Ms. Lapson performed a different state commission ROE analysis in this case than she did in EL11-66.²⁶⁸²

759. NETOs contend that Participants' main criticism of Ms. Lapson's analysis is that she allegedly focuses on returns of companies with non-comparable risks. Although Ms.

²⁶⁷³ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 149; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 84).

²⁶⁷⁴ *Id.* (citing Ex. NET-1300 at 10-11, 39, 41; Ex. NET-1500 at 81).

²⁶⁷⁵ *Id.* (citing Ex. NET-1320 at 1).

²⁶⁷⁶ *Id.* (citing Ex. NET-1319).

²⁶⁷⁷ *Id.* (citing Ex. NET-1300 at 10-11; Opinion No. 531, 147 FERC ¶ 61,234 at P 148).

²⁶⁷⁸ *Id.* (see Ex. S-1 at 17, 103-04; Ex. CAP-19 at 139-42; Ex. EMC-7 at 17-18; Tr. 217:22-219:1).

²⁶⁷⁹ *Id.* at 29-30 (citing Ex. NET-1500 at 80-81; Opinion No. 531, 147 FERC ¶ 61,234 at PP 148-50; Ex. NET-1600 at 29-36; Ex. NET-1601; Ex. NET-1801).

²⁶⁸⁰ *Id.* at 30.

²⁶⁸¹ *Id.* (citing Tr. 217:8-218:14; Ex. NET-1930. See also Tr. 214:4-215:9).

²⁶⁸² *Id.* (see Tr. 220:7-10. See also Ex. NET-1931 and Tr. 219:5-22).

Joe opined that Ms. Lapson improperly uses vertically-integrated electric utilities in her analysis rather than “all electrics,”²⁶⁸³ NETOs point out that Ms. Lapson explained that integrated electric utilities are the most appropriate group for comparison because they are viewed by investors as being higher risk than gas and electric distribution utilities.²⁶⁸⁴ NETOs argue that, based on the Commission’s view that state-regulated electric distribution is less risky than electric transmission investment, the use of integrated electric utilities is appropriate.²⁶⁸⁵

760. NETOs argue that Ms. Lapson provides all the information for the All Electrics group in the same manner and to the same extent as the information for the integrated utilities group.²⁶⁸⁶ NETOs assert that the Commission relied solely on Ms. Lapson’s presentation of allowed ROEs for integrated utilities in Opinion No. 531.²⁶⁸⁷ NETOs argue that Dr. Woolridge’s and Dr. Wilson’s assertions that Ms. Lapson mis-estimated the NETOs’ risk profile are incorrect, as they, like Ms. Joe, overlook the risks of electric transmission enumerated in Opinion No. 531.²⁶⁸⁸

761. NETOs disagree with Ms. Joe’s contention that Local Network Service and its alleged low risks should set the base ROE for Regional Network Service and interstate transmission incentive projects.²⁶⁸⁹ NETOs assert that this argument fundamentally confuses transmission service rate structure and cost recovery with transmission risks that need to be considered in the base ROE.²⁶⁹⁰

762. NETOs note that, with respect to Dr. Avera’s risk premium analysis based on state authorized ROEs, Ms. Joe contends that state ROE findings should be ignored because the methods they use to determine ROEs are unknown.²⁶⁹¹ NETOs counter, arguing that Dr. Avera uses data sets that are widely referenced by other regulators, and recognized by sources cited in Ms. Joe’s own testimony.²⁶⁹²

763. NETOs argue that Dr. Avera utilizes Value Line because that is a source widely

²⁶⁸³ NETOs IB at 30 (see Ex. S-1 at 104).

²⁶⁸⁴ *Id.* (citing Ex. NET-1400 at 41-42; Ex. NET-1600 at 31-34).

²⁶⁸⁵ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 149; Ex. NET-1400 at 41-42. Tr. 396:9-23).

²⁶⁸⁶ *Id.* (see Ex. NET-1600 at 32-34; Ex. NET-1400 at 44-46, 48-50; Ex. NET-1404 at 2, 4; Ex. NET-1802; Tr. 396:9-23).

²⁶⁸⁷ *Id.* at 31 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 148 (citing the 9.8% to 10.74% allowed ROE range for integrated utilities presented by Ms. Lapson at NET-400 at 26-27)).

²⁶⁸⁸ *Id.* (citing Ex. NET-1400 at 8-11, 29-34; Ex. NET-1600 at 40-42).

²⁶⁸⁹ *Id.* (see Ex. S-1 at 3, 11, and 18).

²⁶⁹⁰ *Id.* (citing Ex. NET-1600 at 36-40).

²⁶⁹¹ *Id.* (citing Ex. S-1 at 103).

²⁶⁹² *Id.* (citing Ex. NET-1500 at 81).

relied upon by investors for information on state commission ROE decisions.²⁶⁹³ NETOs assert that it is a non-issue as to whether the state ROEs resulted from litigation or settlements. NETOs contend that the issue is what numbers are reported through RRA and are available to investors to compare investment options among utilities.²⁶⁹⁴

B. Participants

764. EMCOS and Staff assert that underlying rate methodologies for the state authorized ROEs are varied and depart significantly from the Commission's own methodology.²⁶⁹⁵ EMCOS cite Dr. Avera's admission of such in his testimony.²⁶⁹⁶ EMCOS also argue that many more of the presented state authorized ROEs are the result of settlements, which are "analytically uninformative" because the underlying methodology is often unknown and the reported result are often "plugs" that are adopted to achieve the overall revenue results of protracted negotiations.²⁶⁹⁷ CAPs assert that the Commission did consider state ROE decisions in Opinion No. 531. CAPs argue that, assuming *arguendo* that state-allowed ROEs provide an appropriate benchmark, that benchmark should reflect only recent state commission decisions, exclude above-cost ROE adders, and emphasize utilities that resemble NETOs in being insulated from the higher risks associated with generation ownership.²⁶⁹⁸ They contend that, compiled appropriately to reflect those considerations, recent state ROE determinations point to a base ROE of 9.51%.²⁶⁹⁹

765. CAPs and EMCOS express concern over "regulatory lag" in asserting that though the ROE data NETOs present may have been *decided* in either the Complaint II period, or the Complaint III period, the market data being incorporated in those decisions is likely from much earlier time periods. CAPs criticize Ms. Lapson's analysis for failing to account for the lagging nature and ongoing downward trajectory of state decisions.²⁷⁰⁰ CAPs assert that Dr. Avera's presentation of "allowed ROEs" as recorded by AUS utility reports, which summarize last-litigated results dating back many years, is even more lagged.²⁷⁰¹ CAPs cite Dr. Woolridge's exhibits that show that state-authorized ROEs declined from 10.01% in 2012, to 9.8% in 2013, to 9.76% in 2014, and to 9.67% for the

²⁶⁹³ *Id.* (citing Ex. NET-1700 at 13; Tr. 830:24-831:7, 831:13-19 836:25-837:16, 839:23-25).

²⁶⁹⁴ *Id.* (citing Tr. 969:6-11, 17-21).

²⁶⁹⁵ EMCOS IB at 36 (see e.g. *Southwestern Public Service Co.*, 49 FERC at 62,276-62,277); Staff IB at 43 (citing Ex. S-1 at 103).

²⁶⁹⁶ *Id.* (citing Tr. at 841:4-10).

²⁶⁹⁷ *Id.* (citing Ex. EMC-7 at 18:15-19:7).

²⁶⁹⁸ CAPs IB at 56.

²⁶⁹⁹ *Id.* (see Ex. CAP-58).

²⁷⁰⁰ *Id.* at 57.

²⁷⁰¹ *Id.* (see Ex. CAP-19 at 143, rebutting Exs. NET-1308, NET-1319, NET-1324, NET-1325).

first three months of 2015.²⁷⁰² CAPs conclude that “Ms. Lapson’s analysis fails to account for the timing, lag, and trend in state authorized ROE decisions,” and that “by the time the Commission issues a final order in this case, the average state commission ROE decision will likely be closer to 9.0% than 10%.”²⁷⁰³

766. EMCOS argue that the “analysis” that Dr. Avera presents as based on state commission-authorized ROEs²⁷⁰⁴ does not in fact rely on state commission decisions, or otherwise control the accuracy or relevance of the data on which it is premised.²⁷⁰⁵ EMCOS assert that Dr. Avera acknowledged that he did not research actual state commission ROE determinations, but instead compiled the data he represents as state commission-authorized returns from “footnote (E)” on the Value Line reports for the utility subjects of his presentations.²⁷⁰⁶ EMCOS argue that, in several cases, the data reported by Value Line was out-of-date or otherwise inaccurate.²⁷⁰⁷ EMCOS contend that Dr. Avera masked low state ROE values by averaging results for various operating companies without disclosing having done so.²⁷⁰⁸

767. CAPs and EMCOS assert that the data of non-integrated utilities references the state commission authorized returns for utilities who, like the NETOs, do not own generation and are not significantly engaged in other non-electric utility businesses. CAPs and EMCOS argue that these non-integrated utilities therefore have the closest comparable risk structure to the NETOs. EMCOS state that this group would include the state authorized ROEs for the following NETOs’ members: United Illuminating, Emera Maine, Connecticut Light and Power Company, and Central Maine Power Company.²⁷⁰⁹

768. EMCOS assert that in formulating her testimony, Ms. Lapson apparently missed the fact that Paragraph 149 lays out all the reasons why the NETOs risk differs from the “state regulated distribution companies,” i.e. the *exact* group Ms. Lapson now claims

²⁷⁰² *Id.* (citing Ex. CAP-19 at 141, 142).

²⁷⁰³ *Id.* at 57-58 (quoting Ex. CAP-19 at 140:24-25, 142:14-15).

²⁷⁰⁴ Ex. NET-1308, Ex. NET-1707.

²⁷⁰⁵ EMCOS IB at 37.

²⁷⁰⁶ *Id.* (citing Tr. at 830:12-834:9).

²⁷⁰⁷ *Id.* (Tr. at 832:1-833:25 (NET-1707 state ROE value reported for Eversource/Northeast Utilities is an average of allowed returns in Connecticut, Massachusetts and New Hampshire, rather than low allowed ROE of 9.02 in Connecticut); Tr. at 834:10- 836:1 (NET-1707 shows unweighted average ROE for Con Ed and Orange & Rockland)).

²⁷⁰⁸ *Id.* (Tr. at 832:1-833:25 (NET-1707 state ROE value reported for Eversource/Northeast Utilities is an average of allowed returns in Connecticut, Massachusetts and New Hampshire, rather than low allowed ROE of 9.02 in Connecticut); Tr. at 834:10- 836:1 (NET-1707 shows unweighted average ROE for Con Ed and Orange & Rockland)).

²⁷⁰⁹ *Id.* at 38 (see NET-1802 at 3; See also Tr. at 404:5-23).

most resembles the risk profile of the NETOs.²⁷¹⁰ EMCOS argue that NETOs fail to explain why a group of generation owning utilities are a more appropriate comparison to the NETOs than the transmission only non-integrated utilities – an oversight made all the more glaring when one realizes that several of the NETOs would be excluded from the analysis should the Presiding Judge or the Commission actually adopt Ms. Lapson’s argument.²⁷¹¹

769. EMCOS assert that the integrated utilities are incorporated in the “All Electric” data the NETOs present.²⁷¹² They cite Dr. Wilson’s testimony to show that the All Electric group continues to incorporate gas companies and electric generators, and the higher authorized ROEs for these groups dominate the All Electric results.²⁷¹³ EMCOS also cite Opinion No. 531, where the Commission refused to consider alternative methodologies that were not based on purely electric utilities.²⁷¹⁴

770. CAPs state that Ms. Lapson offered no compilation of RRA distribution-only utility ROEs,²⁷¹⁵ but, using Ms. Lapson’s data, one was introduced at trial as Exhibit EMC-17.²⁷¹⁶ CAPs assert that Exhibit EMC-17 shows a midpoint of 9.41%, and range of between 8.72% and 10.10%.²⁷¹⁷ CAPs state that the current Base ROE is well above the top of the range—even before taking into account the 50 additional basis point that the NETOs receive for being RTO members,²⁷¹⁸ let alone the additional adders awarded to the NETOs on a project-specific basis.²⁷¹⁹ CAPs assert that these data both support rejection of the current Base ROE and adoption of Dr. Woolridge’s recommendations.²⁷²⁰

771. CAPs assert that NETOs’ invocation of state ROEs to defend their 10.57% and 11.14% existing Base ROEs makes even less sense in light of the state ROEs currently allowed to Eversource’s transmission-owning subsidiaries.²⁷²¹ They cite Value Line, which reports those state-allowed ROEs as (a) 9.6% (Massachusetts, set in 2011); (b) 9.02% (Connecticut, set in 2015); and (c) 8.4% (New Hampshire, set in 2014).²⁷²² CAPs

²⁷¹⁰ *Id.* at 39-40.

²⁷¹¹ *Id.* at 40 (see Ex. NET-1802 at 3, entry 18 (United Illuminating), at 12, entries 3 (United Illuminating), 13 (Emera Maine), 16 (Central Maine Power), 20 (Connecticut Light and Power Co.). See also Tr. at 404:5-23 (Lapson).

²⁷¹² Tr. 404:16-19 (Lapson).

²⁷¹³ EMCOS IB at 40 (citing Ex. EMC-7 at 17-18).

²⁷¹⁴ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 147 n. 288).

²⁷¹⁵ Tr. 356:15-20.

²⁷¹⁶ CAPs IB at 57.

²⁷¹⁷ *Id.*

²⁷¹⁸ Tr. 335:22-36:3.

²⁷¹⁹ CAPs IB at 57.

²⁷²⁰ *Id.*

²⁷²¹ *Id.* at 58.

²⁷²² *Id.*

state that, consistent with Dr. Avera's practice,²⁷²³ an unweighted average of these three numbers results in a "blended" ROE of 9.01%.²⁷²⁴

772. Relying on Opinion No. 531, Staff argues that although the Commission relied on state ROEs in that case to corroborate its placement of the base ROE within the zone of reasonableness, such reliance is the exception, not the rule.²⁷²⁵ Staff cites Commission precedent to show that in the past the Commission has routinely rejected benchmarks based on state ROEs.²⁷²⁶ Staff argues that reliance on state authorized ROEs creates circular ratemaking in which allowed ROEs are based on what other regulators determine are allowed ROEs, and not on current market data.²⁷²⁷ Additionally, Staff relies upon *Jersey Central Power & Light Co.* to support the proposition that state commissions use a variety of different methods to calculate ROE, and that they can yield different results from the Commission-approved DCF methodology.²⁷²⁸

773. Staff disagrees with NETOs' claim that if the ROE authorized by FERC falls below state-authorized ROEs, then investors will divert their investments to state-regulated distribution.²⁷²⁹ Staff contends that NETOs' claim ignores the fact that investors often do not have a choice between investing in transmission or distribution, but instead invest in holding companies that own both types of facilities.²⁷³⁰ Staff asserts that NETOs' claim also ignores the evidence that the Commission is regarded as more accommodating to utilities than state regulators due to the array of utility-friendly policies such as transmission incentive adders, formulaic forward-looking cost of service models, 100 percent CWIP inclusion in rate base, and 100 percent abandoned cost recovery.²⁷³¹ Staff cites a *Moody's* statement that it "rank[s] the FERC's framework at the top of all regulatory jurisdictions in the U.S. in terms of credit supportiveness."²⁷³²

774. Staff cites the following portion of Ms. Lapson's answering testimony:²⁷³³ "In my opinion, several of the risks identified by the Commission [in Opinion No. 531] have

²⁷²³ Tr. 835:1-5.

²⁷²⁴ CAPs IB at 58.

²⁷²⁵ Staff IB at 44 (citing Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 84, 87-88).

²⁷²⁶ *Id.* (citing *Pepco Holdings, Inc.*, 124 FERC ¶ 61,176 at P 127 (2008); *Jersey Central Power & Light Co.*, 77 FERC ¶ 61,001, at 61,009 (1996); *Green Mountain Power Corp.*, 46 FERC ¶ 61,164, at 61,571 (1989)).

²⁷²⁷ *Id.* (citing Ex. S-1 at 103; Tr. 218-19).

²⁷²⁸ *Id.* (citing *Jersey Central Power & Light Co.*, 77 FERC ¶ 61,001, at 61,009 (1996)).

²⁷²⁹ *Id.* (citing Exs. NET-1400 at 38 and NET-1600 at 30).

²⁷³⁰ *Id.* (citing Tr. 490-491).

²⁷³¹ *Id.* at 44-45 (citing Ex. S-13 at 4).

²⁷³² *Id.* at 45 (citing Ex. S-13 at 4).

²⁷³³ Ex. NET-1400 at 42.

clear parallels in the electric power generation activities of integrated electric utilities: for example, the heavy impact of environmental regulations; multiple jurisdictions overseeing siting and environmental compliance decisions; and financing projects that are large relative to the size of the corporate balance sheet.” Staff asserts that, based on the foregoing, Ms. Lapson concludes that it is appropriate to compare the ROE recommendations in this case to state-authorized ROEs for vertically integrated electric utilities.²⁷³⁴ Staff states that, as an alternative, Ms. Lapson also compares the ROE recommendations in this case to an “all electric utilities” group, which includes distribution-only utilities in addition to the vertically integrated electric utilities.²⁷³⁵

775. Staff argues that Ms. Lapson’s comparison does not go far enough. They note that Ms. Lapson was not sure which of the NETOs own generation²⁷³⁶ and assert that she did not examine whether the Clean Air Act or Clean Water Act place different types of risk on generation versus transmission.²⁷³⁷ Staff points out that although Ms. Lapson acknowledged that Clean Air Act regulations have caused generation facilities to shut down, she did not examine how that risk compares to the risks associated with transmission investment.²⁷³⁸ Staff also relies upon Order No. 679, in which the Commission found that “100 percent of prudently-incurred costs associated with abandoned transmission projects can be included in transmission rates if such abandonment is outside the control of management.”²⁷³⁹ Staff contends that Ms. Lapson does not provide any analysis regarding whether similar cost recovery is available for regulated generation facilities that are abandoned prior to the end of their useful life due to environmental requirements.²⁷⁴⁰ They assert that without a more thorough comparison of investment risk, there is no basis for the claim that FERC-authorized ROEs should be in line with, or even above, state-authorized ROEs for vertically integrated electric utilities.²⁷⁴¹

776. Staff notes that the base ROE in this case would apply without any incentive adders to the NETOs’ Local Network Service (LNS) facilities, while all Regional Network Service (RNS) facilities receive a 50 basis point adder for membership in ISO-NE and some RNS interstate facilities receive greater project-specific adders.²⁷⁴² Staff argues that Ms. Lapson’s claim that the NETOs are more comparable to vertically integrated electric utilities than distribution-only utilities is undermined by her own

²⁷³⁴ Staff IB at 45 (citing Ex. NET-1400 at 41-42).

²⁷³⁵ *Id.*

²⁷³⁶ Tr. 405.

²⁷³⁷ Staff IB at 45 (citing Tr. 487).

²⁷³⁸ *Id.* (citing Tr. 485-487).

²⁷³⁹ *Id.* (citing Order No. 679, FERC Stats. & Regs. ¶ 31,236 at P 163).

²⁷⁴⁰ *Id.* at 45-46.

²⁷⁴¹ *Id.* at 46.

²⁷⁴² *Id.*

testimony regarding the nature of the NETOs' LNS facilities.²⁷⁴³ In support of this proposition, Staff cites Ms. Lapson's cross-examination testimony that LNS facilities are at a lower voltage level than state-regulated distribution facilities and are dedicated to radial service.²⁷⁴⁴ Thus, Staff asserts that LNS facilities do not feature the risk characteristics that distinguish transmission from state distribution facilities that the Commission cited in Opinion No. 531.²⁷⁴⁵ Staff cites Exhibit No. EMC-17 to show that state-authorized ROEs for distribution-only utilities averaged 9.58 and 9.46 during Ms. Lapson's study periods—far below the ROEs recommended by NETOs.²⁷⁴⁶

777. Staff also contends that Exhibit No. NET-1801 is a flawed presentation of state-authorized ROEs. That exhibit contains graphs of state-authorized ROEs for Ms. Lapson's Integrated Electric Utilities and All Electrics groups, for both the Complaint II and III periods. Staff quotes Ms. Lapson's answering testimony: "I noted that during the two periods under study, the Virginia Corporation Commission (VCC) issued some orders containing ROE determinations that relate to individual power generation projects. The base ROE in some of those decisions was 10.40%, while others used a base ROE of 10.00%. The VCC acted in separate proceedings for each generation project receiving incentives, so there is legal justification for including all the VCC orders as distinct ROE decisions. However, doing so *would tend to over-represent decisions by the VCC relative to other state commissions.*"²⁷⁴⁷

778. Nevertheless, Staff states, Ms. Lapson included each VCC decision in her state ROE bar charts on pages 1 through 4 of Exhibit No. NET-1801. Therefore, Staff asserts that the VCC is overrepresented, according to Ms. Lapson's own testimony.²⁷⁴⁸ Staff also pointed out errors in the workpapers that Ms. Lapson used to create Exhibit No. NET-1801.²⁷⁴⁹ Staff notes that Ms. Lapson uses 24 months of data ending on March 31, 2014 for the Complaint II Period, but does not present the data chronologically.²⁷⁵⁰ CAPs state that this presentation ignores the significant downward trend in state-authorized ROEs, from an average of 10.17 percent in 2012, to 10.02 percent in 2013, to 9.91 percent in 2014.²⁷⁵¹ Staff asserts that even the Wolfe Research report reviewed by Ms. Lapson prior to filing her testimony indicates that state-authorized ROEs have been trending downward over the past five years.²⁷⁵² Staff concludes that, based on the foregoing,

²⁷⁴³ *Id.*

²⁷⁴⁴ *Id.* (citing Tr. 495-496).

²⁷⁴⁵ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 149).

²⁷⁴⁶ *Id.*

²⁷⁴⁷ *Id.* (citing Ex. NET-1400 at 47 (emphasis added)).

²⁷⁴⁸ *Id.* at 47 (citing Ex. NET-1400 at 47; Tr. 501).

²⁷⁴⁹ *Id.* (citing Tr. 401-402).

²⁷⁵⁰ *Id.*

²⁷⁵¹ *Id.* (citing Ex. CAP-80 at 3).

²⁷⁵² *Id.* (citing Ex. NET-1602 at 10; Tr. 322-323).

Exhibit No. NET-1801 is of little use and should not be relied upon.²⁷⁵³ Staff also concludes that Dr. Avera also relies on state authorized ROEs for his alternative risk premium analysis.²⁷⁵⁴ They believe that his analysis suffers from the same fundamental flaws associated with Ms. Lapson's reliance on state ROEs.²⁷⁵⁵

C. Findings and Conclusions

779. EMCOS argue that Dr. Avera's presentation of state-determined ROEs is flawed because he did not present "actual state commission ROE determinations," but instead used Value Line's compilation of state commission ROEs.²⁷⁵⁶ The undersigned agrees with NETOs that EMCOS' argument is without merit, given that investors consult Value Line, and Value Line provides a well-accepted data point.²⁷⁵⁷ Further, the undersigned finds that EMCOS' claim that Dr. Avera "masked" state ROEs in his analysis is baseless.²⁷⁵⁸ The transcript shows that Dr. Avera noted that his analysis included the average ROE for multi-jurisdictional utilities.²⁷⁵⁹ This is not "masking" – it is averaging ROEs in multiple jurisdictions.²⁷⁶⁰

780. The undersigned agrees with NETOs that state-determined ROEs are applicable regardless of FERC's "supportiveness." Staff claims that the NETOs' state-determined ROE analyses "ignore[] the evidence that the Commission is regarded as more accommodating to utilities than state regulators. ..." ²⁷⁶¹ However, the Moody's report cited by Staff (Exhibit S-13 at 4) does not make this statement.²⁷⁶² Staff also fails to explain the relevance of its assertion – if the Commission awards more favorable ROEs than state commissions, than there should be no harm in using state commission decisions as an alternative benchmark.²⁷⁶³

781. The undersigned agrees with NETOs' arguments that regulatory lag and recent state trends are inapplicable. CAPs and EMCOS' "regulatory lag" argument against the use of past state ROE decisions was rejected in Opinion No. 531-B.²⁷⁶⁴ CAPs and EMCOS make the same argument on the basis that recent state Commission decisions

²⁷⁵³ *Id.*

²⁷⁵⁴ *Id.* (citing Exs. NET-1300 at 41, NET-1320, and NET-1708).

²⁷⁵⁵ *Id.*

²⁷⁵⁶ EMCOS IB at 37.

²⁷⁵⁷ See NETOs RB at 47 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 102 (noting that Value Line is "independent" and "widely-followed")).

²⁷⁵⁸ See EMCOS IB at 37.

²⁷⁵⁹ Tr. 833:4-10.

²⁷⁶⁰ NETOs RB at 47.

²⁷⁶¹ Staff IB at 44-45.

²⁷⁶² See NETOs RB at 47.

²⁷⁶³ See *Id.*

²⁷⁶⁴ Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 82-87.

show a downward trajectory and argue that Ms. Lapson should only have utilized the most recent decisions for the first months of 2015 which show a downward trajectory.²⁷⁶⁵ This is a repeat of the same argument that was rejected in Opinion No. 531-B. The “Commission did not use the evidence of state commission-authorized ROEs to determine the level at which the NETOs’ base ROE should be set;” rather, it used the state commission-authorized ROEs “in conjunction with evidence that interstate transmission is riskier than state-level distribution” to inform itself of whether the DCF-produced zone of reasonableness was insufficient to satisfy the requirements of *Hope* and *Bluefield*.²⁷⁶⁶ The undersigned does the same here.

782. CAPs and EMCOS argue that Ms. Lapson’s state commission ROE analysis should have compared the NETOs to a distribution-only companies’ group, rather than to integrated utilities.²⁷⁶⁷ EMCOS and the CAPS referred to Opinion No. 531 at P 149 as an indication that the NETOs’ risk should be compared to state-regulated distribution companies.²⁷⁶⁸ The undersigned finds that this argument is incorrect; **the use of only non-integrated utilities for the state commission ROE analysis is unsupported.**

783. Ms. Lapson confirmed that the methodology she used for her state commission ROE analysis in the instant proceeding is the same methodology she applied in Docket No. EL11-66; that analysis included the use of integrated utilities.²⁷⁶⁹ Moreover, the CAPs and EMCOS disregard statements in the cited portions of Opinion Nos. 531 and 531-B that the Commission was referring to “investments” in transmission or distribution, rather than company-specific analysis.²⁷⁷⁰ Most importantly, the 9.8 percent to 10.74 percent range of allowed ROEs selected by the Commission as the relevant benchmark in Opinion No. 531 reflects data for *integrated* utilities.²⁷⁷¹ As a result, Ms. Lapson’s comparisons with allowed ROEs for integrated utilities are consistent with Opinion No. 531, while the CAPs’ and EMCOS’s reference to distribution-only

²⁷⁶⁵ CAPs IB at 57; see also Staff IB at 47; CAPs IB at 2, 58; EMCOS IB at 36.

²⁷⁶⁶ Opinion No. 531-B, 150 FERC ¶ 61,165 at P 84.

²⁷⁶⁷ EMCOS IB at 39-40, 51; CAPs IB at 56-57.

²⁷⁶⁸ *Id.*; CAPs IB at 56-57.

²⁷⁶⁹ NETOs RB at 49; Ex. NET-1400 at 43.

²⁷⁷⁰ Opinion No. 531, 147 FERC ¶ 61,234 at P 149 (referring to “electric infrastructure investment, particularly state-regulated electric distribution”); Opinion 531-B, 150 FERC ¶ 61,165 at PP 84-85. See also Tr. at 524:17-525:4 (Lapson) (noting that the Opinion Nos. 531 and 531-B referenced “investments in transmission or distribution” rather than “the context of transmission companies or distribution companies”).

²⁷⁷¹ Opinion No. 531, 147 FERC ¶ 61,234 at P 148, referencing Ex. NET-400 at 26-27, which noted that, of 72 cases involving integrated utilities, “91% of all the observations lie in the range of 9.8% to 10.74%.” NET-400 at 26. Ms. Lapson further noted that after including distribution-only utilities together with integrated companies, “85% of the decisions were in the range of 9.8% to 10.74%.”

companies contradicts the Commission's prior findings.²⁷⁷²

784. The undersigned also agrees with NETOs that it would also be logically inconsistent to review only distribution companies because this case relates only to the transmission activities and assets of the NETOs, and transmission is riskier than state-regulated distribution.²⁷⁷³

785. Staff and the CAPs state that Ms. Lapson's workpapers contain errors and were not proofread carefully.²⁷⁷⁴ NETOs' counter that the errors that were pointed out appeared in unused columns in the workpapers that did not affect Ms. Lapson's analysis.²⁷⁷⁵ For example, Staff points to an error in the workpapers set forth in the hearing transcript at pages 401 to 402.²⁷⁷⁶ However, the error that was uncovered was that one ROE result was labeled as a settlement rather than a litigated result.²⁷⁷⁷ This is of no consequence as Opinion No. 531 did not distinguish between settlement results and litigation results in its application of state commission ROEs.²⁷⁷⁸ The undersigned finds that NETOs' opponents did not demonstrate that any errors in Ms. Lapson's workpapers were material or would have changed the outcome of her conclusions.

786. The undersigned agrees with NETOs that local network service should not set the base ROE. The undersigned finds that Staff's argument that Local Network Service and its alleged low risks should be used to set the base ROE for Regional Network Service and interstate transmission incentive projects is unsupported.²⁷⁷⁹ Ms. Lapson refuted this argument by showing that it fundamentally confuses transmission service rate structure and cost recovery with transmission risks that need to be considered in the base ROE.²⁷⁸⁰ Further, Ms. Lapson testified that there is no difference in risk between Local Network Service and Regional Network service as both are transmission service – it is “simply a cost allocation bucket difference.”²⁷⁸¹ The undersigned gives great weight to this portion of Ms. Lapson's testimony.

787. Staff claims that Ms. Lapson's analyses over represent some state commissions, including the Virginia Corporation Commission (VCC).²⁷⁸² However, this statement

²⁷⁷² NETOs RB at 48.

²⁷⁷³ See *Id.* at 49 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 149; Opinion 531-B, 150 FERC ¶ 61,165 at P 84).

²⁷⁷⁴ Staff IB at 47; CAPs IB at 58 n.252.

²⁷⁷⁵ NETOs RB at 49.

²⁷⁷⁶ See *Id.*

²⁷⁷⁷ See Tr. 401:16-19.

²⁷⁷⁸ Tr. 515:13-25 (Lapson).

²⁷⁷⁹ See Staff IB at 46; NETOs RB at 50.

²⁷⁸⁰ See *Ex.* NET-1600 at 36-40; NETOs RB at 50.

²⁷⁸¹ NETOs RB at 50 (citing Tr. 528:7-20 (Lapson)).

²⁷⁸² Staff IB at 46-47.

ignores Ms. Lapson's credible and persuasive expert testimony. While Ms. Lapson did not remove multiple VCC decisions from Exhibit NET-1801, she did remove them from the corresponding table, and also removed them from Exhibit NET-1404 in order to prevent over-representation.²⁷⁸³ The undersigned finds that NETOs' opponents did not demonstrate that any errors in Ms. Lapson's workpapers would have changed the outcome of her conclusions.

2.2.2 What additional capital market or other information, if any, should be considered related to the ROE?

2.2.2.1 EMCOS' Relative Risk Argument

A. EMCOS

788. EMCOS argue that the Commission should consider information on the NETOs' risk levels when identifying a just and reasonable Base ROE for the NETOs. EMCOS assert that the *Hope* and *Bluefield* standards require that the NETOs Base ROE be "commensurate with returns on investments in other enterprises having corresponding risks."²⁷⁸⁴ EMCOS state that NETOs' investors have "no constitutional right" to the types of profit realized by the investors in riskier enterprises.²⁷⁸⁵ EMCOS contend that the record in this proceeding illustrates that the NETOs have significantly less financial risk than the national proxy group for the Complaint III Period.²⁷⁸⁶

789. EMCOS argue that, unlike the proxy group members, NETOs' business risk is limited to transmission investments.²⁷⁸⁷ EMCOS contend that NETOs have mitigated many of the risks associated with transmission investments through the use of mechanisms such as the recovery of construction work in progress,²⁷⁸⁸ the recovery of costs associated with abandoned plant,²⁷⁸⁹ and the use of formula rates using forecasted revenue requirements subject to true-up.²⁷⁹⁰ EMCOS assert that the availability of risk minimizing mechanisms such as these has caused the investment market to "view the Federal Energy Regulatory Commission ... as among the most supportive rate regulatory

²⁷⁸³ Tr. 501:7-15 (Lapson); Ex. NET-1400 at 47.

²⁷⁸⁴ EMCOS IB at 41 (citing *Hope*, 320 U.S. at 603).

²⁷⁸⁵ *Id.* (citing *Bluefield*, 262 U.S. at 692-693).

²⁷⁸⁶ *Id.* (citing Ex. EMC-11 at 9:12-13).

²⁷⁸⁷ *Id.* (citing Ex. EMC-11 at 9:14-16).

²⁷⁸⁸ Ex. S-13 at 4; Tr. at 336:24-13; 469:22-1 (Lapson).

²⁷⁸⁹ Tr. at 337:14-338:2 (Lapson).

²⁷⁹⁰ EMCOS IB at 41-42 (citing Tr. at 338:7-24 (Lapson)).

Commissions in the country.”²⁷⁹¹

790. EMCOS argue that NETOs’ risk is further reduced by their significantly higher common equity ratios, as compared to those of the national proxy group members. As Dr. Wilson testifies:

...an allowed ROE must be evaluated in conjunction with capital structure in order to understand and assess its reasonableness. A relatively high ROE, that may be deemed appropriate together with a very low equity ratio, may nevertheless be entirely unreasonable with a thick equity ratio. A 10 percent after tax ROE that produces a 6.0% weighted equity return with a 60 percent equity ratio will produce only a 4.0% weighted equity return with a 40 percent equity ratio.²⁷⁹²

791. EMCOS state that applying this principle to the Complaint II Refund Period, Dr. Wilson calculates that the NETOs’ simple average equity ratio was 55.7 percent as of December 31, 2013, while the simple average equity ratio for his national proxy group is 48.65 percent.²⁷⁹³ Dr. Wilson testifies that this 7.05 percent disparity can be offset by applying an approximately 110 basis point ROE adjustment. Dr. Wilson’s recommendation for an adjusted ROE for the Complaint II Refund Period is 8.32 percent.²⁷⁹⁴

B. NETOs

792. NETOs state that Dr. Woolridge asserted that the NETOs are “a little less risky” than the companies in his proxy group.²⁷⁹⁵ However, Ms. Lapson demonstrated that Dr. Woolridge’s treatment of unrated subsidiaries was flawed in two respects: in some cases, Dr. Woolridge assigned the parent’s rating to the subsidiary, even though the parent was not a guarantor; and in other cases he eliminated the unrated entities from the calculation effectively treating them as average.²⁷⁹⁶

793. Ms. Lapson testified that the investment community perceives unrated entities as higher risk, and that a more reasonable assumption is to treat them as low investment

²⁷⁹¹ *Id.* at 42 (citing Ex. S-4 at 113 (Standard and Poor’s stated “This assessment is based on rate mechanisms that allow the operating subsidiaries to recover their costs and return on investments on a forward-looking basis, authorized rates of return that are often incentive based, and an operating capital structure of 60% equity”)).

²⁷⁹² Ex. EMC-4 at 30:1-16.

²⁷⁹³ EMCOS IB at 42 (citing Ex. EMC-11 at 12:3-4).

²⁷⁹⁴ Ex. EMC-11 at 12:15.

²⁷⁹⁵ Ex. CAP-1 at 18.

²⁷⁹⁶ Ex. NET-1400 at 29-35.

grade utilities.²⁷⁹⁷ Ms. Lapson showed that with this adjustment, the NETOs and the companies in Dr. Woolridge's proxy group are of comparable risk.²⁷⁹⁸ NETOs contend that, in any event, there is no merit to Dr. Woolridge's relative risk argument because, consistent with Commission guidance,²⁷⁹⁹ the objective in establishing a fair ROE for a group of transmission owners is to consider fully the range of investment risks, and not a "weighted average," as derived by Dr. Woolridge.²⁸⁰⁰

C. Findings and Conclusions

794. In Opinion No. 531, the Commission found that, "[t]he financial and business risks faced by investors in companies whose focus is electric transmission infrastructure differ in some key respects when compared to other electric infrastructure investment, particularly state-regulated distribution," and that "these factors increase the NETOs' risk relative to the state-regulated distribution companies."²⁸⁰¹ In Opinion No. 531-B, the Commission emphasized that "interstate transmission is riskier than state-level distribution."²⁸⁰²

795. EMCOS argued in EL11-66 that the NETOs' base ROE should be set at the low end of the range of reasonableness because formula transmission rates significantly mitigate the risk of cost and revenue fluctuations.²⁸⁰³ The Presiding Judge in that proceeding did not make the requested ROE decrease, finding that the Commission has rejected arguments that the use of formula rates by utilities requires downward adjustments to ROEs.²⁸⁰⁴ The Commission in Opinion No. 531 affirmed the Presiding Judge in EL11-66 on all issues not discussed in that Opinion. EMCOS make effectively the same argument again in the instant proceeding. Thus, the Commission implicitly rejected EMCOS arguments on this point.²⁸⁰⁵ The undersigned rejects EMCOS' arguments here as well.

796. The Commission rejected other arguments of EMCOS in Docket No. EL11-66 that the NETO's base ROE should be set at the lower end of the ROE range of

²⁷⁹⁷ *Id.* at 30-31.

²⁷⁹⁸ *Id.* at 32.

²⁷⁹⁹ *Midwest Indep. Sys. Operator, Inc.*, 106 FERC ¶ 61,302 at P 9 (2004).

²⁸⁰⁰ NET-1300 at 119:19-121:6.

²⁸⁰¹ Opinion No. 531, 147 FERC ¶ 61,234 at P 149.

²⁸⁰² Opinion No. 531-B, 150 FERC ¶ 61,165 at P 85 & n.173.

²⁸⁰³ NETOs RB at 27 (citing EL11-66 Initial Decision, 144 FERC ¶ 63,012 at P 133).

²⁸⁰⁴ *Id.* (citing EL11-66 Initial Decision, 144 FERC ¶ 63,012 at P 597, Attachment A (adopting NETOs' Proposed Finding and Conclusion). EMCOS did not pursue this issue on exceptions to the EL11-66 Initial Decision.

²⁸⁰⁵ EL11-66 Initial Decision at P 597, Attachment A (adopting NETOs' Proposed Finding and Conclusion 778).

reasonableness because the NETOs have lower risks than the proxy group.²⁸⁰⁶ The Commission has also rejected arguments in other proceedings that utility-specific regulatory mechanisms and legal protections justify reductions in a utility's base ROE.²⁸⁰⁷ For the reasons the Commission laid out in Opinion No. 531, the undersigned rejects the same arguments made herein.

797. EMCOS argue through their expert, Dr. Wilson, that the NETOs' base ROE should be reduced by 110 basis points because their risk is reduced by higher common equity ratios than those of the proxy group.²⁸⁰⁸ The undersigned rejects this argument. This is simply an attempt to repackage the "lower risk" argument that has been repeatedly rejected by the Commission in prior ROE proceedings. The undersigned finds that EMCOS' have failed to put forth sufficient probative and persuasive record evidence that the NETOs have significantly less financial risk than the national proxy group for the Complaint II refund period and that the NETOs' base ROE should therefore be adjusted downward.²⁸⁰⁹

798. EMCOS argue that NETOs are less risky because their "business risk is limited to transmission investments."²⁸¹⁰ EMCOS also claim that transmission rate mechanisms available to the NETOs such as formula transmission rates, the recovery of costs associated with abandoned plant, and the recovery of construction work in progress, reduce the NETOs' risks.²⁸¹¹ The undersigned finds that EMCOS provide no evidence that these rate mechanisms are not equally available to other members of the proxy group.²⁸¹² EMCOS also cite no precedent that supports their proposed ROE reduction.

799. NETOs point out that formula rates actually put utilities at risk for retroactive downward adjustments (*e.g.*, the risk of future refunds for prior periods in section 206 proceedings).²⁸¹³ The Commission has consistently rejected arguments that the use of rate

²⁸⁰⁶ *Id.* (see Opinion 531-B, 150 FERC ¶ 61,165 at PP 39, 48 (rejecting arguments that a comparison of credit ratings showed that the NETOs' are less risky than the proxy group)).

²⁸⁰⁷ *Id.* at 27-28 (citing *S. Cal. Edison Co.*, 131 FERC ¶ 61,020 at P 67 (2010) ("these risk factors are not applicable when determining the base ROE. As we explained herein, when establishing a base ROE for SoCal Edison, we utilize the DCF methodology, and apply a significant set of screening factors. As a result of this process, we have developed a reasonable proxy group that has been sufficiently screened for risk.")).

²⁸⁰⁸ EMCOS IB at 42-43.

²⁸⁰⁹ *Id.* at 41-43.

²⁸¹⁰ *Id.* at 41.

²⁸¹¹ *Id.* at 41-42.

²⁸¹² See NETOs RB at 26.

²⁸¹³ *Id.* at 26-27 (citing *See Ark. Pub. Serv. Comm'n v. Entergy Corp.*, 142 FERC ¶ 61,012 at PP 27-30 (2013); see also Tr. 526:7-13).

mechanisms such as formula rates by utilities should lead to reductions in ROEs.²⁸¹⁴ Dr. Avera convincingly shows that the common equity ratios of the NETOs are entirely consistent with utilities represented in the national proxy group.²⁸¹⁵

800. CAPs rely on a credit ratings comparison prepared by Dr. Woolridge to argue that NETOs are less risky than the companies in his proxy group.²⁸¹⁶ However, NETOs argue that Ms. Lapson introduced a more accurate credit ratings comparison to correct several flaws in Dr. Woolridge's analysis.²⁸¹⁷ This comparison showed that, even if one were to accept Dr. Woolridge's approach for the sake of argument, NETOs and Dr. Woolridge's national proxy group were of comparable risk.²⁸¹⁸

801. Continuing, CAPs argue that Ms. Lapson should have modified her comparison of the NETOs' average credit scores to the average credit scores of the national proxy group to reflect April 2015 changes in the credit ratings of Eversource subsidiaries.²⁸¹⁹ CAPs assert that such a modification would have shown that the national proxy group is "riskier" than the NETOs.²⁸²⁰

802. The undersigned agrees with NETOs and finds that CAPs' argument ignores the fact that Ms. Lapson's comparison of credit scores used data applicable to the Complaint II period.²⁸²¹ As Ms. Lapson convincingly explained, it would have been inappropriate to update her corrected credit ratings comparison for the Complaint II study period to reflect credit rating changes in 2015.²⁸²² The critique of Ms. Lapson's credit ratings' comparison is based on a false premise and is hereby rejected.

803. Even if it did not contain the flaws identified by Ms. Lapson, Dr. Woolridge's relative risk argument is hereby rejected because the Commission, in setting an ROE for all the transmission owners in an ISO, considers their "full range of risks and business profiles," and not a "weighted average" credit rating as suggested by Dr. Woolridge and the CAPs.²⁸²³

²⁸¹⁴ *Id.* at 27 (see, e.g., *Va. Elec. & Power Co.*, 123 FERC ¶ 61,098 at PP 56-57, 58-68 (2008); *Green Power Express, LP*, 127 FERC ¶ 61,031 at P 81 (2009); *PJM Interconnection, L.L.C.*, 137 FERC ¶ 61,253 at PP 54, 60, 62 (2011)).

²⁸¹⁵ Ex. NET-1300 at 129-131.

²⁸¹⁶ CAPs IB at 7.

²⁸¹⁷ See NETOs RB at 28 (citing Ex. NET-1400 at 29-32).

²⁸¹⁸ *Id.*

²⁸¹⁹ *Id.* (citing CAPs IB at 7; Tr. 281:12-17; Tr. 283:21-284:2).

²⁸²⁰ *Id.* (citing CAPs IB at 7; Tr. 281:12-17; Tr. 283:21-284:2).

²⁸²¹ *Id.*

²⁸²² *Id.*

²⁸²³ *Id.* (citing *Midwest Indep. Sys. Operator, Inc.*, 106 FERC ¶ 61,302 at P 9 (2004), *aff'd in part sub nom, Pub. Serv. Comm'n of Ky. v. FERC*, 397 F.3d 1004 (D.C. Cir. 2005); see also Ex. NET-1300 at 119-121).

804. For the reasons just described, the undersigned finds that NETOs are of comparable risk to the proxy group.

2.3 Ultimate Issues

2.3.1 What is the proper placement of the base ROE in the zone of reasonableness?

A. CAPs

805. CAPs state that Dr. Woolridge's DCF study using forward-looking growth rates and a comparable group of utility proxies contains twenty-four retained ICOEs. Of those twenty-four ICOEs, five are 7–8%, ten are 8–9%, eight are 9–10%, and only one exceeds 10%.²⁸²⁴ CAPs argue that that array supports neither the 11.14% base ROE (which was the pre-existing, billed ROE for virtually that entire period), nor the 10.57% base ROE (which took effect later pursuant to Opinion No. 531-A).²⁸²⁵ While that array points to a midpoint ROE of 8.69%, CAPs stands by its support for reliance on medians even though the midpoint is slightly lower than the median (8.75%) in this instance.²⁸²⁶

806. CAPs state that they are well aware that Commission policy relies on the midpoint in DCF analyses. Nevertheless, CAPs insist that the “median provides the most representative and reliable single-point distillation of the information provided by the dozens of retained ICOEs.”²⁸²⁷

807. CAPs present further alternative arguments that bear no relation to established Commission policy. For example, CAPs argue that alternative remedies could be considered if reducing the base ROE to that cost-based level (8.75%) is deemed to be too large a reduction to undertake all at once. In that case, they explain that the base ROE could be set at the 60th Percentile (8.81%, and thus generally equivalent to the midpoint, but without what they term the “statistical illogic of reliance on midpoints”).²⁸²⁸ Or, CAPs contend, the base ROE could be set at the 75th Percentile (9.19%).²⁸²⁹ CAPs argue that the cost-based DCF median could also be leavened with the average of recent state commission ROE decisions, thus yielding a base ROE of 9.07% that would be symmetrically stabilized against future ROE increases, if and when future DCF results

²⁸²⁴ CAPs IB at 59.

²⁸²⁵ *Id.*

²⁸²⁶ *Id.*

²⁸²⁷ *Id.* at 16.

²⁸²⁸ *Id.* at 59.

²⁸²⁹ *Id.*

come to exceed the lagging indicator provided by state commission ROE decisions.²⁸³⁰

B. EMCOS

808. EMCOS argue that NETOs' base ROE should be set at 8.32 percent for the Complaint II period. 8.32 percent represents the midpoint of the 25th percentile ROE and the midpoint ROE of Dr. Wilson's zone of reasonableness.²⁸³¹

809. EMCOS assert that in identifying the appropriate base ROE for the NETOs, Dr. Wilson first calculated the return on equity required to produce a weighted average cost of capital that would correct for the difference between the national proxy group utilities' capital structures and the equity-heavy structures used by the NETOs.²⁸³² In making his base ROE recommendation, EMCOS argue that Dr. Wilson incorporated the Commission's objectives to continue to incentivize transmission investment. EMCOS contend that this leads Dr. Wilson to his recommendation of a base ROE placed at the midpoint between the 25th percentile and the midpoint of the zone of reasonableness.²⁸³³

810. EMCOS cite the employment by several of the NETOs of unreasonably equity-heavy capital structures²⁸³⁴ as evidence that use of a midpoint value would overcompensate the NETOs at the expense of the customers.²⁸³⁵ EMCOS state that while the Commission has expressed its preference for using a utility's actual capital structure; the Commission also recognizes that its "ratemaking policies can create an incentive for the corporate parent of a regulated utility to maintain an equity-rich capital structure in the subsidiary."²⁸³⁶ EMCOS assert that the Commission's "obligation to protect ratepayers from excessive rates" includes "those that could result from manipulation of a regulated subsidiary's capital structure."²⁸³⁷ EMCOS argue that the Federal Power Act's

²⁸³⁰ *Id.* (citing Ex. CAP-19 at 147:16 – 148:17).

²⁸³¹ EMCOS IB at 43 (citing Ex. EMC-11 at 12:11-16, 14:20-15:6).

²⁸³² *Id.*

²⁸³³ *Id.* (citing Ex. EMC-11 at 12:11-16, 14:20-15:6).

²⁸³⁴ Ex. EMC-4 at 31:3-13 (Iberdola, S.A.'s Central Main Power at 60.63% equity, National Grid plc's New England Power at 64.08% equity, Emera Inc.'s Emera Maine (formerly Bangor Hydro-Electric Co.) at 67.45% equity, Next Era's New Hampshire Transmission at 59.96% equity).

²⁸³⁵ EMCOS IB at 44.

²⁸³⁶ *Id.* (citing *Transcontinental Gas Pipe Line Co.*, Opinion No. 414, 80 FERC ¶ 61,157 at 61,665, *order on reh'g*, Opinion No. 414-A, 84 FERC ¶ 61,084 at 61,415, *reh'g denied*, Opinion No. 414-B, 85 FERC ¶ 61,323 (1998), *rev. denied sub nom. N.C. Utils. Comm'n v. FERC*, 203 F.3d 53 (D.C. Cir. 2000) (per curiam)).

²⁸³⁷ *Id.* (citing *Transcontinental Gas Pipe Line Co.*, Opinion No. 414-A, 84 FERC ¶ 61,084, 61,412 (1998)).

requirement that all rates remain just and reasonable includes the obligation to ensure that equity-rich capital structures are not used to the detriment of the consumers.²⁸³⁸

811. EMCOS contend that adjusting the NETOs' base ROE as Dr. Wilson recommends properly balances the Commission's desire to incent transmission and use the NETOs' actual capital structure while also protecting New England consumers from the excessive costs generated by the NETOs' equity-heavy capital structures.²⁸³⁹

C. Staff

812. Staff asserts that NETOs have failed to demonstrate that anomalous market conditions exist. Moreover, Staff argues that even if those conditions exist, NETOs have failed to demonstrate that anomalous market conditions warrant consideration of alternative benchmark analyses or state ROEs.²⁸⁴⁰ Staff states that, to the contrary, the undisputed evidence in this case demonstrates that the NETOs enjoy highly favorable market conditions for attracting capital.²⁸⁴¹ Staff contends that the midpoint of a properly conducted DCF analysis meets the requirements of *Hope* and *Bluefield*.²⁸⁴² Staff argues that NETOs' alternative benchmark analyses and presentation of state ROEs are flawed, do not support a base ROE above the midpoint of the zone of reasonableness, and should not be afforded any weight.²⁸⁴³ Accordingly, Staff urges that the Presiding Judge adopt Trial Staff's recommended base ROE of 8.72 percent for the Complaint II Refund period.²⁸⁴⁴

D. NETOs

813. NETOs assert that a mechanical application of the midpoint to the range of results produced by the DCF model yields an ROE estimate that would not satisfy the standards of Opinion No. 531 and *Hope* and *Bluefield*. Staff states that, for comparison's sake, the midpoint of the DCF range for the Complaint II refund period produces a point estimate of 9.17%; that figure is even lower than the 9.39% point estimate rejected by the Commission as unjust and unreasonable in Opinion No. 531.²⁸⁴⁵ It is also below almost

²⁸³⁸ *Id.* at 44-45 (citing *Communications Satellite Corp. v. FCC*, 611 F.2d 883, 903-904 (D.C. Cir. 1977) ("The equity investor's stake is made less secure as the company's debt rises, but the consumer rate-payer's burden is alleviated. It is these conflicting interests that the Commission is to reconcile.")).

²⁸³⁹ *Id.* at 45.

²⁸⁴⁰ Staff IB at 47.

²⁸⁴¹ *Id.*

²⁸⁴² *Id.*

²⁸⁴³ *Id.* at 47-48.

²⁸⁴⁴ *Id.* at 48.

²⁸⁴⁵ NETOs IB at 40 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 142-52).

all of the state commission ROEs for less risky distribution assets.²⁸⁴⁶

814. NETOs contend that the same capital market conditions present in the record of Opinion No. 531 persisted during the Complaint II refund period, as did the resulting distortion of the inputs to the DCF model. Under these same circumstances, NETOs assert that the Commission has already found that it has less confidence that a mechanical application of the midpoint of the DCF model accurately reflects the equity returns necessary to meet the *Hope* and *Bluefield* capital attraction standards.²⁸⁴⁷ NETOs therefore argue that reference to the alternative benchmarks of utility costs of equity and state-authorized ROEs is necessary to guide the determination of a just and reasonable ROE from within the DCF range.²⁸⁴⁸

815. NETOs assert that each of the same alternative benchmarks used in Opinion No. 531 confirms that an upward adjustment from the midpoint of the zone of reasonableness is necessary in this case: (1) the risk premium analysis used by the Commission in Opinion No. 531 implies a cost of equity of 10.64%; (2) the midpoint of the returns calculated using the forward-looking CAPM method approved in Opinion No. 531 is 11.41%; and (3) the midpoint of the returns calculated using the expected earnings approach is 12.58%.²⁸⁴⁹ NETOs also state that evidence of state-authorized ROEs also confirms that a mechanical application of the DCF model produces a midpoint result that is unjust and unreasonable: the range of relevant state commission-authorized ROEs (for less risky assets) during the Complaint II refund period was 9.25% to 10.95%.²⁸⁵⁰ NETOs assert that the state-approved ROEs of the proxy group fell within a range of 8.72% to 11.48% with a midpoint of 10.10%.²⁸⁵¹

816. NETOs argue that although the DCF study using IBES data shows that the preexisting base ROE of 11.14% is above the middle of the top half of the DCF zone of reasonableness, it remains within the range and the other analyses described above point to an ROE above 11%.²⁸⁵² NETOs show in Exhibit NET-1313 that the average midpoint for the CAPM, electric utility risk premium, and expected earnings analysis is 11.26%.²⁸⁵³ The midpoint of the DCF upper range of returns using Value Line is 13.50%.²⁸⁵⁴ In light of this evidence, NETOs assert that continuance of the existing ROE during the Complaint II refund period of 11.14% and a maximum ROE of 13.5% (high

See also Ex. NET-1300 at 5-11; Ex. NET-1315).

²⁸⁴⁶ *Id.* (citing Ex. NET-1300 at 62-63; Ex. NET-1400 at 43-46; Ex. NET-1404).

²⁸⁴⁷ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

²⁸⁴⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 145).

²⁸⁴⁹ *Id.* (citing Ex. NET-1300 at 7-8; Ex. NET-1313 at 1).

²⁸⁵⁰ *Id.* at 40-41 (citing Ex. NET-1400 at 43; Ex. NET-1404).

²⁸⁵¹ *Id.* at 41 (citing Ex. NET-1400 at 43; Ex. NET-1404).

²⁸⁵² *Id.*

²⁸⁵³ *Id.* (citing Ex. NET-1313 at 1).

²⁸⁵⁴ *Id.* (citing Ex. NET-1313 at 1).

end of zone of reasonableness from Opinion No. 489) is supported by the record.

817. NETOs contend that using the IBES growth rates in strict conformance with the methodology used in Opinion No. 531, the midpoint of the upper end of the range would result in a base ROE of 10.24% and the high end of this DCF range would be 11.31%.²⁸⁵⁵

818. NETOs argue that the recommended ROEs of opposing witnesses Ms. Joe, Dr. Woolridge, and Dr. Wilson are founded on assumptions, arguments, and calculations that contradict Opinion No. 531 and fail to meet basic regulatory standards, including *Hope* and *Bluefield*.²⁸⁵⁶ NETOs therefore contend that the Staff, CAPS and EMCOS have not met their initial burden of proof and the existing ROE should be retained.²⁸⁵⁷ NETOs argue that Ms. Joe bases her recommendation upon mechanical application of the midpoint of the range of DCF returns. However, NETOs believe this recommendation is predicated upon a flawed analysis of capital market conditions and erroneous conclusions regarding the risks of the NETOs.²⁸⁵⁸

819. NETOs state that Dr. Woolridge contends that the NETOs' ROE should be set at the median of the range of returns, contrary to established Commission precedent for setting a single ROE for multiple public utilities within an RTO.²⁸⁵⁹ They cite *Canadian Ass'n of Petroleum Prods. v. FERC* to show that the midpoint does not consider only the top and bottom of the range of results, as Dr. Woolridge suggests, but the other DCF results as well.²⁸⁶⁰ Moreover, NETOs contend that Dr. Woolridge's choice of the median would not resolve the purported distortion he seeks to resolve – “to the extent the results from the underlying model are being distorted, ‘the dense cluster of [implied costs of equity] in the thick of the results distribution’ will only perpetuate the error.”²⁸⁶¹

820. NETOs assert that EMCOS' witness Dr. Wilson opines that NETOs' ROE should be set in a range defined by the 25th percentile and the midpoint of his calculation of the range of returns.²⁸⁶² Dr. Wilson opines that the financial risk of the NETOs is “substantially less” than the financial risk of the national proxy group based upon his

²⁸⁵⁵ *Id.*

²⁸⁵⁶ *Id.* (citing Ex. NET-1300 at 60-71; Ex. NET-1500 at 20-37).

²⁸⁵⁷ *Id.*

²⁸⁵⁸ *Id.*

²⁸⁵⁹ *Id.* at 42 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 106 FERC ¶ 61,302, at PP 9-10 (2004), *aff'd in relevant part sub nom. Pub. Serv. Comm'n of Ky. v. FERC*, 397 F.3d 1004, 1010-11 (D.C. Cir. 2005); *S. Cal. Edison*, 131 FERC ¶ 61,020 at P 92 (2010), *aff'd in relevant part, S. Cal. Edison Co. v. FERC*, 717 F.3d 177, 185-87 (2013)).

²⁸⁶⁰ *Id.* (citing *Canadian Ass'n of Petroleum Prods. v. FERC*, 254 F.3d 289, 298 (D.C. Cir. 2001); NET-1300 at 107-08).

²⁸⁶¹ *Id.* (see Ex. NET-1300 at 110:21-111:1. See also Tr. 687:5-6).

²⁸⁶² Ex. EMC-8 at 10.

review of their capital structure ratios and his contention that the NETOs business risk is limited to transmission investments, which are “virtually guaranteed.”²⁸⁶³ NETOs counter that Dr. Wilson is incorrect, as Dr. Avera shows that the NETOs’ capital structure ratios are entirely consistent with, not higher than, the national proxy group.²⁸⁶⁴ In addition, NETOs again note that Dr. Wilson ignores the special risks of electric transmission that the Commission discussed in Opinion No. 531. Dr. Avera also explains that the NETOs’ financial risks are already captured by their credit ratings and reflected in the proxy group selection criteria and the Commission has rejected attempts in the past to apply a duplicative screen for financial risk on top of the proxy group credit rating evaluation.²⁸⁶⁵

821. NETOs assert that each of the recommended ROEs of the Participants is near or below the lowest of the state commission-authorized ROEs.²⁸⁶⁶ As illustrated below, each of their recommended ROEs falls significantly below the results of the NETOs’ alternative benchmarks.²⁸⁶⁷ NETOs explain that the graph below depicts the ROE recommendations of the CAPs, EMCOS, and Staff for the Complaint II and Complaint III Periods, as compared to the results of the alternative benchmarks for those periods. For reference, the alternative benchmarks’ results adopted by the Commission in Opinion No. 531 are also shown.²⁸⁶⁸

[This space is intentionally left blank]

²⁸⁶³ Ex. EMC-1 at 21; Ex. EMC-8 at 9-10.

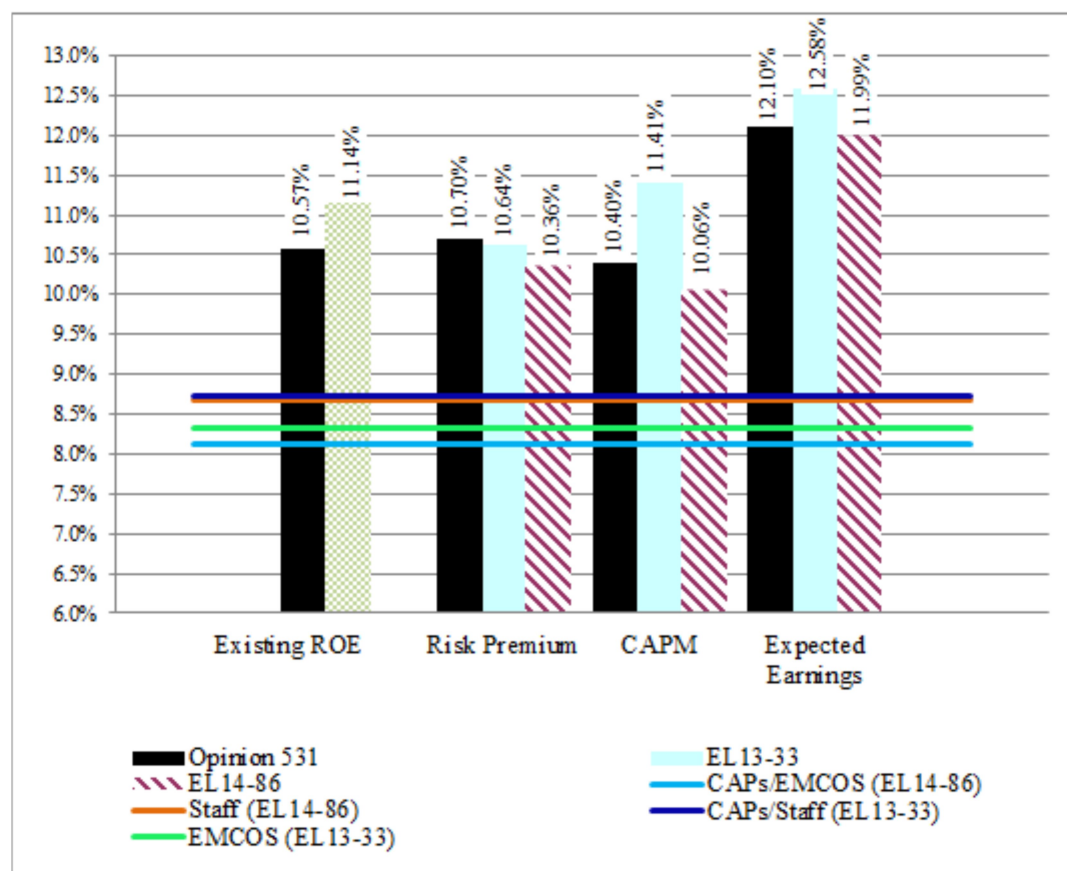
²⁸⁶⁴ NETOs IB at 43 (citing Ex. NET-1300 at 129-131; Ex. NET-1326 at 2).

²⁸⁶⁵ *Id.* (citing Ex. NET-1300 at 128).

²⁸⁶⁶ *Id.* (citing Ex. NET-1400 at 7-8; Ex. NET-1404; Ex. NET- 1600 at 32-34; Ex. NET-1601; Ex. NET-1800 at 4).

²⁸⁶⁷ *Id.* (citing NET-1300 at 60-62, 71; NET-1500 at 19).

²⁸⁶⁸ *See* NETOs IB at 43 (original in color).



822. NETOs cite to Ms. Lapson's testimony, where she explains that investors would react with surprise and alarm if the Commission was to change course from Opinion No. 531 and accept the recommendations of the Participants, and the consequence would be that investors would conclude that investment in electric transmission is not able to earn an ROE that is commensurate with its risks and uncertainties.²⁸⁶⁹ If such low ROEs were adopted, the NETOs warn that they could be placed at a competitive disadvantage in the capital markets, and they could suffer adverse effects on their internal cash flows, financial strength, and credit ratings.²⁸⁷⁰ NETOs cite Opinion No. 531 to show that these are the very problems the Commission stated it was intending to avoid.²⁸⁷¹

E. Findings and Conclusions

²⁸⁶⁹ *Id.* at 44.

²⁸⁷⁰ *Id.* (citing Ex. NET-1400 at 36-37, 50-51).

²⁸⁷¹ *Id.* (see Opinion No. 531, 147 FERC ¶ 61,234 at PP 150-51).

823. The undersigned finds that CAPs' argument that the median should be used as the base ROE is unpersuasive. CAPs' argument runs counter to the clearly stated methodology that the Commission has adopted.

824. The undersigned finds that the evidence shows that anomalous capital market conditions such as those that were present in the Complaint I (Docket No. EL11-66, Opinion No. 531) refund period and were also present in the Complaint II refund period; those conditions also resulted in a distortion of the inputs to the DCF model.²⁸⁷² Alternative benchmark methodologies show that the midpoint of the DCF range of reasonableness would not be a just and reasonable base ROE for the NETOs.²⁸⁷³ Under these circumstances, mechanical application of the DCF model will not satisfy regulatory standards and an upward adjustment from the midpoint of the zone of reasonableness is necessary in order to comply with the mandates of *Hope* and *Bluefield* and to establish a just and reasonable ROE.²⁸⁷⁴

825. The undersigned finds that the just and reasonable ROE for Complaint II is represented by the Top Quarter of Mr. Green's properly run DCF methodology, 9.59 percent.²⁸⁷⁵ As explained above in the Findings and Conclusions for Section 2.1.2, Mr. Green does not define the term "Top Quarter." However, Ms. Joe, upon whose testimony Mr. Green in large part relies,²⁸⁷⁶ defined the term as "halfway between the midpoint and the top of the zone of reasonableness."²⁸⁷⁷

2.3.2 What limit, if any, should apply to the incentive ROEs?

A. CAPs

826. CAPs assert that the top of Dr. Woolridge's DCF range is 10.36%. Pursuant to Opinion No. 531-B,²⁸⁷⁸ the Ceiling ROE, i.e., the maximum ROE for any one project or other identifiable portion of NETOs' rate bases, should likewise be 10.36% for the Complaint II period.²⁸⁷⁹

827. In light of the DCF extremes' unreliability, Dr. Woolridge also proposes an alternate approach that would set the ceiling ROE at the higher of: (a) 1.3 times the

²⁸⁷² See NETOs RB at 62.

²⁸⁷³ *Id.*

²⁸⁷⁴ *Id.*

²⁸⁷⁵ Ex. S-33 at Schedule 1.

²⁸⁷⁶ See Ex. S-31 at 2-3.

²⁸⁷⁷ See, e.g., Ex S-1 at 9, 24, 59.

²⁸⁷⁸ See Opinion No. 531-B, 150 FERC ¶ 61,165 P 145 (capping the total ROE for each transmission asset at the DCF range top).

²⁸⁷⁹ CAPs IB at 60.

median of that period's DCF array, or (b) 275 bp above that median.²⁸⁸⁰ Under this alternative, the ceiling ROE would be 11.5% for the Complaint II period.²⁸⁸¹

B. EMCOS

828. EMCOS explain that the Commission caps any incentive ROE at the top of the zone of reasonableness.²⁸⁸² For the Complaint II period, the top end of Dr. Wilson's identified zone of reasonableness is 10.38 percent.²⁸⁸³ Therefore, EMCOS recommend that NETOs' incentive ROEs should be capped at 10.38 percent, on a project-by-project basis.²⁸⁸⁴

C. Staff

829. Staff explains that the Commission has established that the maximum ROE for transmission incentive projects should be the top of the zone of reasonableness.²⁸⁸⁵ Staff contends that Dr. Avera's objective to obtain the highest possible maximum ROE is abundantly clear from his testimony.²⁸⁸⁶ Staff criticizes him because he favors maintaining as many companies in the proxy group as possible and inclusion in the proxy group of all companies that do not fail a screening criterion.²⁸⁸⁷ They note that a larger proxy group, of course, is more likely to include a company with a higher result to form the top of the range.²⁸⁸⁸ They believe that this point is illustrated by the fact that Dr. Avera included ITC Holdings in his IBES proxy group notwithstanding evidence that the company's speculative merger activity distorted the stock prices and dividend yields during several months of the Complaint II period.²⁸⁸⁹ Similarly, Dr. Avera proposed an alternative *Value Line* "Annual Rates" DCF analysis, because "[t]he upper end of the

²⁸⁸⁰ *Id.* (citing Ex. CAP-1 at 75-77:8).

²⁸⁸¹ *Id.*

²⁸⁸² EMCOS IB at 45 (citing Opinion No. 531, 147 FERC ¶ 61,234, at P 164; *Promoting Transmission Investment through Pricing Reform*, Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 2, *order on reh'g* Order No. 679-A, FERC Stats. & Regs. ¶ 31,236, *order on reh'g*, 119 FERC ¶ 61,062 (2007); NETOs Pre-Hearing Brief at 22; EMCOS Pre-Hearing Brief at 22; Trial Staff Pre-Hearing Brief at 23; CAPs Pre-Hearing Brief at 25).

²⁸⁸³ *Id.* (citing Ex. EMC-12 at 2).

²⁸⁸⁴ *Id.* (citing *So. Cal Edison Co.*, 133 FERC ¶ 61,269, at P 21 (2010); *NStar Elec. Co.*, 125 FERC ¶ 61,313, at PP 81-87 (2008)).

²⁸⁸⁵ STAFF IB at 48 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 161-165; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 139-146).

²⁸⁸⁶ *Id.*

²⁸⁸⁷ *Id.* (Tr. 586, 897, 942).

²⁸⁸⁸ *Id.*

²⁸⁸⁹ *Id.*

IBES-based DCF range falls below the range implied by alternative benchmarks and undercuts the Commission's policy goals by limiting the NETOs' ability to benefit from approved incentive adders."²⁸⁹⁰ Staff argues that these tactics improperly inflate Dr. Avera's maximum ROE and should be rejected.²⁸⁹¹ Instead, they contend that the Presiding Judge should adopt Trial Staff's recommended maximum ROE of 10.39 percent based on the top of Ms. Joe's zone of reasonableness for the Complaint II Refund Period.²⁸⁹²

D. NETOs

830. NETOs explain that, according to Commission policy, the top of the range of reasonable returns of the DCF analysis effectively "caps" the recovery of incentive ROE adders.²⁸⁹³ NETOs argue that the other parties have not met their burden of demonstrating that the NETOs' existing base ROE is unjust and unreasonable for the Complaint II refund period, and therefore NETOs argue that the high end established in Docket No. ER04-157 (13.5%) should continue to apply.²⁸⁹⁴ Alternatively, NETOs explain that the top end of the zone of reasonableness calculated through application of the DCF method using IBES growth rates is 11.31%.²⁸⁹⁵

E. Findings and Conclusions

831. The undersigned rejects CAPs alternate approach that would set the ceiling ROE at the higher of (a) 1.3 times the median of that period's DCF array, or (b) 275 basis points above that median.²⁸⁹⁶ This approach has no basis whatsoever to the methodology used in Opinion Nos. 531 and 531-B.

832. The undersigned agrees with Staff, EMCOS, and NETOs and finds that the Commission has established that the maximum ROE for transmission incentive projects should be the top of the zone of reasonableness. The undersigned finds that the Ceiling ROE for Complaint II is represented by the top of Mr. Green's properly run DCF methodology, 10.42 percent.²⁸⁹⁷

²⁸⁹⁰ *Id.* (citing Ex. NET-1500 at 4. See Ex. NET 1500 at 16-17, 47-48; Tr. 858-859).

²⁸⁹¹ Staff IB at 48.

²⁸⁹² *Id.*

²⁸⁹³ NETOs IB at 44 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 164;

²⁸⁹⁴ *Id.*

²⁸⁹⁵ *Id.* (citing Ex. NET-1300 at 6).

²⁸⁹⁶ CAPs IB at 60 (citing Ex. CAP-1 at 75-77:8).

²⁸⁹⁷ Ex. S-33 at Schedule 1.

3. ROE for Refund Period in Docket No. EL14-86 (July 31, 2014 – October 30, 2015) and Prospectively from the date FERC Sets a New ROE in Docket No. EL14-86

3.1 DCF Methodology

3.1.1 How should the DCF methodology be applied for that period?

3.1.1.1 Miscellaneous Issues

A. Participants

833. CAPs repeat their arguments from section II. They assert that NETOs present stale ICOEs from *Yahoo! Finance* for Allete, Avista, Black Hills, El Paso, and Otter Tail.²⁸⁹⁸ CAPs argue that Dr. Avera's Complaint III DCF studies applied a 3.42% unadjusted Alliant dividend yield.²⁸⁹⁹ CAPs assert that this is materially higher than the other DCF witnesses' parallel figures.²⁹⁰⁰ CAPs argue that NETOs make the same dividend yield calculation error, which inflates the ICOEs for 14 of the NETOs' Complaint III proxies.²⁹⁰¹

834. CAPs state that Dr. Woolridge excluded IDACORP's 6.45% ICOE from his updated Complaint III period study because it had "Only One Current EPS Growth Rate Forecast – No Consensus."²⁹⁰² CAPs state that Dr. Woolridge reasoned that such single-analyst EPSGs are not checked against any other analyst's methodology and fail to sample reliably the many EPSGs available to investors.²⁹⁰³ CAPs assert that Dr. Woolridge's exclusion of IDACORP, the only otherwise-qualified candidate proxy excluded from Ex. CAP-69 on that basis, raised the bottom of his DCF range.

835. CAPs assert that Dr. Avera includes IDACORP in his updated Complaint III DCF study, but inflates its ICOE to 7.12% by using a 4% rather than 3% EPSG.²⁹⁰⁴ CAPs argue that the 4% EPSG post-dated the study period and that the 4.0% estimate relied upon by Dr. Avera did not exist during the DCF study period.²⁹⁰⁵ CAPs assert that an analyst estimate that post-dates the study period is not helpful in inferring what expected growth factored into study-period stock prices.²⁹⁰⁶ CAPs contend that IDACORP should be excluded along with any other candidate proxy for which IBES has only one current

²⁸⁹⁸ CAPs IB at 18 (citing Ex. NET-1703 at 1).

²⁸⁹⁹ *Id.* at 19 (citing Ex. NET-1703 at 1).

²⁹⁰⁰ *Id.* (see Exs. CAP-69 at 5, S-7 at 127, EMC-13 at 1).

²⁹⁰¹ *Id.* (see Ex. S-7 at 127; Ex. NET-1712 at 47).

²⁹⁰² *Id.* at 20 (citing Ex. CAP-69 at 5).

²⁹⁰³ *Id.* (see Ex. CAP-1 at 57:28-58:9; Tr. 185:10-86:19).

²⁹⁰⁴ *Id.*

²⁹⁰⁵ *Id.*

²⁹⁰⁶ *Id.* (see Ex. CAP-54 at 10:19-22).

analyst estimate.²⁹⁰⁷ If such proxies are included, CAPs argue that the ICOE for IDACORP should be 6.45%, as calculated by both Dr. Woolridge²⁹⁰⁸ and Ms. Joe.²⁹⁰⁹

836. EMCOS assert that the DCF methodology should be applied in the same manner as discussed in Section 2. EMCOS state that Dr. Wilson's analysis indicates that the appropriate range of credit ratings for this period continues to be S&P ratings in the range of A to BBB- and Moody's ratings in the range of A1 to Baa2.²⁹¹⁰

837. Dr. Wilson eliminated the following companies from his national proxy group:

- Entergy Corp., FirstEnergy Corp., Scana Corp., and PNM Resources for having credit ratings that fell below the identified credit band;²⁹¹¹
- Cleco Corp., Exelon, Hawaiian Electric, Integrys Energy Group, NextEra Energy, Pepco, TECO Energy, UIL Holdings and Wisconsin Energy for being engaged in significant merger or spinoff activity;²⁹¹² and
- Edison International for having a DCF result that was unreasonable low and therefore failed to satisfy threshold tests of economic logic.²⁹¹³

EMCOS assert that their exclusions are uncontroversial, with the exception of TECO Energy (TECO).

838. Staff argues that it was improper of NETOs to attempt to inject into the record, via their initial brief, a comparison of Ms. Joe's testimony with that of another Staff witness in another proceeding.²⁹¹⁴ Staff asserts that this portion of NETOs' Initial Brief, consistent with the August 13, 2015, Order Denying Motion to Lodge, should be disregarded.²⁹¹⁵

839. Staff acknowledges that NETOs do not address Trial Staff's Complaint III period growth rates, dividend yield calculations, or long-term growth rates, except to discuss whether the April 30, 2015, DCF I cutoff date is appropriate.²⁹¹⁶ However, because NETOs did address these issues with respect to the Complaint II period, Trial Staff

²⁹⁰⁷ *Id.* at 21.

²⁹⁰⁸ *See* Ex. CAP-69 at 5.

²⁹⁰⁹ *See* Ex. S-6 at 1.

²⁹¹⁰ EMCOS IB at 46 (citing Ex. EMC-11 at 16-18).

²⁹¹¹ Ex. EMC-8 at 4-5.

²⁹¹² Ex. EMC-11 at 8.

²⁹¹³ *Id.*

²⁹¹⁴ Staff RB at 71 (citing NETOs IB at 50-51).

²⁹¹⁵ *Id.*

²⁹¹⁶ *Id.* at 72 (see NETOs IB at 53).

briefly reiterates its positions out of an abundance of caution.

840. Staff repeats that Ms. Joe's use of authentic IBES growth rates published by TROD complies with the Commission's requirement that all of the proxy companies' growth rate estimates be based on consistent data protocols so that the ROE analysis is internally consistent and reflects a single consistent time period of analysis.²⁹¹⁷ Because Dr. Avera used Yahoo as his source of IBES EPS growth rate data, Staff contends that his DCF analyses are not based on the most reliable IBES data that is consistent with IBES protocols.²⁹¹⁸

841. Staff reiterates that the *Value Line* "Annual Rates" EPS growth rates used in Dr. Avera's alternative updated DCF study reflect baselines dating back several years prior to the dates of the reports.²⁹¹⁹ They again argue that significant variances in the results between the Complaint II and Complaint III study periods demonstrate that *Value Line* "Annual Rates" EPS growth rates are erratic and can lead to distorted results.²⁹²⁰

842. Staff contends that the Presiding Judge should adopt Ms. Joe's Complaint III period dividend yield calculations and that Dr. Avera's DCF analysis should be rejected because he used the same improper dividend yield calculation as he used for the Complaint II period, contrary to Opinion Nos. 531 and 510.²⁹²¹ Staff argues that the Presiding Judge should adopt 4.36 percent as the GDP long-term growth rate.²⁹²²

843. Staff asserts that NETOs dismiss Ms. Joe's DCF II analysis, because she stated her preference for synchronized data as of April 30, 2015.²⁹²³ They argue that NETOs fail to present any argument as to why Ms. Joe's alternative DCF II analysis should not be used, if the Presiding Judge decides that later growth rate data should be used.²⁹²⁴

B. NETOs

844. NETOs state that Dr. Woolridge asserts that the NETOs are less risky than the companies in his Complaint III proxy group.²⁹²⁵ As NETOs argued in Section 2, NETOs

²⁹¹⁷ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90; Opinion No. 531-B, 150 FERC ¶ 61,165 at P 76).

²⁹¹⁸ *Id.* (citing Staff IB at 54 (citing Ex. S-1 at 13, 46-47, S-4 at 1, S-5 at 12-13, S-6 at 6, 10, and S-7 at 109-126)).

²⁹¹⁹ *Id.*

²⁹²⁰ *Id.* (citing Staff IB at 54 (citing Ex. NET-1712 at 68; Appendix A)).

²⁹²¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 77; Opinion No. 510, 134 FERC ¶ 61,129 at P 234; Ex. S-5 at 6; S-6 at 1, 7; Tr. 871)).

²⁹²² Staff IB at 54; Staff RB at 72-73.

²⁹²³ Staff RB at 73 (citing NETOs IB at 53, n.67).

²⁹²⁴ *Id.*

²⁹²⁵ NETOs IB at 53 (citing Ex. CAP-54 at 13).

again contend that Ms. Lapson demonstrated that Dr. Woolridge's treatment of unrated NETO subsidiaries in his comparison was flawed.²⁹²⁶

845. NETOs state that, revised using Ms. Lapson's method, the weighted average S&P credit point score for the NETOs is 0.06 lower than that for the proxy group (2.70 – 2.64), whereas the weighted average Moody's point score for the NETOs is 0.02 higher than that for the proxy group (2.87 - 2.89). With these adjustments, NETOs argue that the calculations show that the NETOs and the companies in Dr. Woolridge's proxy group are of comparable risk.

846. NETOs assert that Ms. Joe and Drs. Woolridge and Wilson used IBES growth rate data from April 30 or May 1, 2015 rather than the most current IBES growth rate data at the time they prepared their analyses.²⁹²⁷ NETOs state that using the most current growth rates is consistent with the forward-looking nature of the DCF model as well as Opinion No. 531, which ruled that the ROE analysis should be based on the most recent financial data available at the time of the hearing.²⁹²⁸ In that case, NETOs contend, Staff urged that Dr. Avera's DCF analysis be rejected because it used month-ending dividend yield data but did not use month-ending IBES data. NETOs assert that the Commission rejected this argument and adopted Dr. Avera's DCF inputs, which used the most recent IBES growth rates available at the time he prepared his testimony, rather than month-ending data.²⁹²⁹ NETOs argue that Dr. Avera's approach should be followed here as well.

C. Findings and Conclusions

847. To the extent that the Participants repeat the same arguments used in Complaint II, they are denied for the same reasons as in Complaint II.

848. Using the most current growth rates is consistent with the forward-looking nature of the DCF model and Opinion No. 531. The Commission in Opinion No. 531 ruled that the ROE analysis should be based on the most recent financial data available at the time of the hearing.²⁹³⁰ In that case, Staff urged that Dr. Avera's DCF analysis be rejected because it used month-ending dividend yield data but did not use month-ending IBES data. The Commission rejected this argument and adopted Dr. Avera's DCF inputs,

²⁹²⁶ *Id.* at 54 (citing Ex. NET-1400 at 28-34).

²⁹²⁷ *Id.* at 53 (citing Ex. CAP-54 at 8; Ex. EMC-13 at 1; Ex. S-6 at 1. Ms. Joe performed a second analysis without this feature, but recommended against it. S-5 at 3).

²⁹²⁸ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 160) (See also Portland Natural Gas Transmission Sys., 134 FERC ¶ 61,129 at P 242 (2011), order on reh'g, 142 FERC ¶ 61,198 (2013); Opinion 489, 117 FERC ¶ 61,129 at P 28).

²⁹²⁹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 84, 88).

²⁹³⁰ *Id.* at 53 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 160) (See also Portland Natural Gas Transmission Sys., 134 FERC ¶ 61,129 at P 242 (2011), order on reh'g, 142 FERC ¶ 61,198 (2013); Opinion 489 at P 28).

which used the most recent IBES growth rates available at the time he prepared his testimony, rather than month-ending data.²⁹³¹ NETOs argue that Dr. Avera's approach should be followed here as well. NETOs assert that Ms. Joe and Drs. Woolridge and Wilson used IBES growth rate data from April 30 or May 1, 2015 rather than the most current IBES growth rate data at the time they prepared their analyses.²⁹³² The undersigned finds that Participants failed to use the most current growth rate data.

849. As in the Complaint II period, CAPs again argue for exclusion from the proxy group any member whose IBES growth rate is based on the views of a single analyst. The undersigned rejects this argument with respect to Complaint III for the same reasons provided above with respect to Complaint II period.

850. EMCOS again argue that the NETOs have significantly less financial risk than the national proxy group. EMCOS contend that the base ROE should be reduced by 110 basis points.²⁹³³ The undersigned rejects EMCOS' argument here for the same reasons stated in Section II above.

851. As laid out in section 2 above, Dr. Avera again used improper dividend yield calculations and an out-of-period GDP growth rate in his direct and updated testimonies. However, Dr. Avera corrected these errors in his testimony filed during the reopening of the record.²⁹³⁴

3.1.1.2 ITC

A. Participants

852. CAPs assert that the treatment of ITC for the Complaint III Period may have a significant effect on that period's base ROE. They argue that this effect may approach 20 basis points, depending on how other issues are resolved.²⁹³⁵ CAPs state that both Dr. Woolridge and Ms. Joe rely on the last EPSG to have been reported by their respective Reuters source during the six-month DCF study period as the IBES consensus EPSG for ITC.²⁹³⁶ According to CAPs, that EPSG (and Yahoo's contemporaneous EPSG) was 11.58%.²⁹³⁷ CAPs argue that Dr. Avera, however, relies on an 11.93% ITC EPSG that did not appear on Yahoo until May 2015.²⁹³⁸ CAPs assert that such reliance violates the

²⁹³¹ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 84, 88).

²⁹³² *Id.* (citing Ex. CAP-54 at 8; Ex. EMC-13 at 1; Ex. S-6 at 1. Ms. Joe performed a second analysis without this feature, but recommended against it. S-5 at 3).

²⁹³³ EMCOS IB at 51-52.

²⁹³⁴ *See* Exs. NET-2000 through NET-2006.

²⁹³⁵ CAPs IB at 24.

²⁹³⁶ *Id.* at 24-25.

²⁹³⁷ *Id.* at 25 (see Ex. CAP-69 at 4-5; Ex. S-6 at 1, 6).

²⁹³⁸ *Id.*

fundamental DCF theory that the only relevant EPSGs are those which investors had in mind in setting study-period stock prices.

853. CAPs state that ITC's EPSG temporary elevation during May 2015 appears to be a result of a Wells Fargo analyst report showing a 13% EPSG.²⁹³⁹ According to CAPs, Dr. Woolridge emailed the underlying report's listed contacts. CAPs argue that Dr. Woolridge was seeking to understand both the source of that increase and whether study-period investors could have predicted it (and thus, whether it was relevant under DCF theory).²⁹⁴⁰ CAPs state that Dr. Woolridge's inquiry concerned a perceived calculation error in which earnings were compounded over three rather than four years.²⁹⁴¹ CAPs state that Dr. Woolridge was informed by voice message that Wells Fargo stood by its 13%. CAPs contend that the message did not explain the calculation behind the 13%, negate the possibility that it had been miscalculated, or provide a basis to infer that study period investors could have predicted it.²⁹⁴²

B. NETOs

854. NETOs did not brief this issue.

C. Findings and Conclusions

855. As further explained in Section 3.1.1.3, ITC does not set the top of the zone of reasonableness for the Complaint III Period. As such, ITC's EPSG for the Complaint III Period is moot and will not be examined further.

3.1.1.3 TECO

A. Participants

856. Participants each take the position that NETOs improperly included TECO Energy (TECO) in the Complaint III proxy group. Participants each make near identical arguments to that point. Because EMCOS briefed the issue particularly well, the undersigned has summarized EMCOS arguments below, which will stand in as the

²⁹³⁹ *Id.* (citing Ex. CAP-54 at 10-11).

²⁹⁴⁰ *Id.* (citing Ex. CAP- 153).

²⁹⁴¹ *Id.* (see Ex. CAP-54 at 10:16-11:14).

²⁹⁴² *Id.* (see Tr. 177:3-22).

arguments for Participants.

857. EMCOS contend that if TECO Energy were to be included in the DCF proxy group, that inclusion would inappropriately increase the upper end of the zone of reasonableness from the 11 percent range to 12.5 percent.²⁹⁴³ EMCOS state that Dr. Avera, who initially excluded TECO on the basis of its ongoing attempts to sell its coal subsidiary,²⁹⁴⁴ had a convenient change of heart once TECO became a possible high end value. EMCOS assert that Dr. Wilson's, Dr. Woolridge's and Ms. Joe's continued exclusion of TECO is consistent with Commission precedent, and necessary to ensure a just and reasonable result.

858. EMCOS again state that the Commission requires the exclusion of any utility engaged in merger or spinoff activity sufficient to distort the DCF inputs.²⁹⁴⁵ EMCOS assert that the record evidence demonstrates TECO Energy's long-pending sale of its coal subsidiary is likely to have distorted the DCF inputs for the Complaint III period. EMCOS note that the Complaint III period runs from November 2014 to April 2015, during which time:

- TECO Energy's stock remained raised following its announcement of its intention to sell its coal subsidiary. TECO Energy made the announcement on October 20, 2014, prompting a 15 percent rise in TECO's stock by December 2014.²⁹⁴⁶
- The November 2014 issuance of Value Line recognized an 8 percent increase in TECO's stock price during the month following announcement of its intention to divest its coal mining operations.²⁹⁴⁷
- TECO's stock showed spinoff-related price volatility, as underscored by comparing movement of its stock price to stock price trends for the electric utility industry as a whole during the relevant time frame.²⁹⁴⁸

859. According to EMCOS, TECO's continuing attempts to exit the coal industry by selling its coal subsidiaries show more than sufficient evidence of spinoff-related stock price volatility to have been capable of distorting the DCF inputs for the Complaint III

²⁹⁴³ EMCOS IB at 47 (see Ex. NET-7:16-19 (12.5 percent high-end value); Ex. EMC-13 at 2 (11.16 percent high-end value); Ex. CAP-54 (10.92 percent high-end value); Ex. S-5 at 6:3-8 (11.15 percent high-end value)).

²⁹⁴⁴ *Id.* (citing Ex. EMC-25 at 4; Tr. at 789:7-790:12 (Avera) (discussing reason for excluding TECO in his February 2015 testimony)).

²⁹⁴⁵ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 114).

²⁹⁴⁶ Ex. S-5 at 10:7-11:10; Ex. S-7 at 83.

²⁹⁴⁷ Ex. CAP-100.

²⁹⁴⁸ Ex. EMC-29 at 1; Ex. S-5 at 10-11; Ex. S-7 at 84-85; Ex. CAP-129.

period.²⁹⁴⁹ For this reason, EMCOS assert that TECO Energy must be excluded from the proxy group.²⁹⁵⁰

860. Dr. Avera claims the sale of TECO's coal subsidiary is less than 1.5 percent of TECO's total capital, and thus is too small to affect investors' views on the value of the stock.²⁹⁵¹ According to EMCOS, this argument cannot be reconciled with the facts. EMCOS argue that the distortions discussed above are the result of the market's reaction to TECO's decision to exit the coal business "irrespective of the sales price."²⁹⁵² EMCOS contend that, in addition to the depressing effect that coal industry risks have imposed on TECO's stock price, TECO Coal's margins have long "suffered...from the sustained weakness" of the coal industry, and its "contribution to parent cash flow" is projected to be "insignificant" at best.²⁹⁵³

861. EMCOS state that, in formulating his argument that the size of the spinoff is insufficiently significant to warrant excluding TECO from the DCF proxy group, Dr. Avera conducts his own pricing research.²⁹⁵⁴ According to EMCOS, in February of 2015 Dr. Avera was of the opinion that Value Line's data concerning the impact of the spinoff was "good enough" for him "to say it's met the Commission's standard for exclusion."²⁹⁵⁵ EMCOS state that it was in May, when TECO's implied cost of equity would set the high end of the zone of reasonableness, that Dr. Avera lost faith in Value Line, and found it necessary to conduct his own pricing research.²⁹⁵⁶

862. EMCOS conclude that Commission precedent straightforwardly requires that TECO be excluded from the DCF proxy group because it was engaged in merger or spinoff activity sufficient to distort the DCF inputs.

B. NETOs

863. NETOs again argue that the Commission's policy is that a company engaged in "major merger activity" during the DCF study period is excluded from the proxy group if that activity is "significant enough to distort the DCF inputs."²⁹⁵⁷ NETOs assert that the

²⁹⁴⁹ EMCOS IB at 48.

²⁹⁵⁰ *Id.*

²⁹⁵¹ *Id.* at 48-49 (Ex. NET-1700 at 6).

²⁹⁵² *Id.* at 49 (citing Ex. EMC-27 at 1; Tr. 806:10-20 (Avera) (acknowledging that the investment community "really like the idea" that TECO is leaving the coal business)).

²⁹⁵³ *Id.* (citing Ex. EMC-27 at 1).

²⁹⁵⁴ *Id.* (citing Tr. 790:4-12 (Avera) (current position to exclude TECO informed by his own pricing research)).

²⁹⁵⁵ *Id.* (citing Tr. 804:19-24).

²⁹⁵⁶ *Id.* at 49-50 (citing Tr. 790:4-12).

²⁹⁵⁷ NETOs RB at 45 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 92, 114; Opinion No. 489 at PP 67-68; NET-1500 at 38-39).

Commission has included in proxy groups utilities involved in M&A transactions during the DCF analysis period, where appropriate.²⁹⁵⁸

864. NETOs assert that TECO should be included in the proxy group. According to NETOs, TECO completed a significant acquisition transaction with New Mexico Gas Company that expanded TECO's customer base by 50% before the beginning of the study period used to calculate the updated DCFs for the Complaint III periods.²⁹⁵⁹ NETOs argue that that transaction is therefore irrelevant to the DCF studies for Complaint III. On October 20, 2014, TECO announced that it had reached an agreement to sell its coal subsidiary. NETOs argue that this was a minor transaction because the initial \$120 million cash sale price comprised only about 2% of TECO's assets.²⁹⁶⁰

865. NETOs contend that when Dr. Avera prepared his May 29, 2015 update testimony, he determined that a review of then-current information confirmed that there was no rationale to remove TECO from the proxy group for the updated study period November 2014 through April 2015.²⁹⁶¹ NETOs assert that, by this time, both the September 2014 New Mexico Gas Company acquisition and the October 2014 coal sale announcement fell outside the six-month DCF study period, as did the stock price increase to which the November 21, 2014 Value Line had referred. According to NETOs, all of the increase to which Value Line referred occurred in October 2014.²⁹⁶² NETOs argue that there is no evidence that the coal sale has resulted in any ongoing distortion to TECO's stock price during the analysis period that would lead to distortion in the resulting DCF values.²⁹⁶³

866. NETOs assert that Dr. Avera provided a graph that compared TECO's stock price to that of the DJUA, which showed that TECO's stock price "mirrored the trend in the industry generally."²⁹⁶⁴ According to NETOs, the same was true for the twelve-day period following the announcement of the coal sale transaction and prior to the start of the Complaint III DCF analysis period (October 20, 2014 and October 31, 2014): while TECO's stock rose during this period, so did those of utilities in general, at close to the same rate, while the S&P 500 index rose at virtually the same rate.²⁹⁶⁵ NETOs state that Dr. Avera concluded that "changes in TECO's stock price since the announced sale of TECO's coal mining subsidiary are in line with other utilities and the utility industry

²⁹⁵⁸ *Id.* (citing Opinion No. 489, 117 FERC ¶ 61,129 at P 67; Opinion No. 531, 147 FERC ¶ 61,234 at P 114).

²⁹⁵⁹ *Id.* (citing Ex. NET-1304 at 1, note (a); Ex. NET-1937 at 1).

²⁹⁶⁰ *Id.* at 45-46 (citing Exs. CAP-99, CAP-100; Tr. 573:12-574:5, 799:22-23).

²⁹⁶¹ *Id.* at 46 (citing Ex. NET-1700 at 4).

²⁹⁶² *Id.* (citing Ex. S-7).

²⁹⁶³ *Id.*

²⁹⁶⁴ *Id.*

²⁹⁶⁵ *Id.* (citing Ex. CAP-128; Ex. S-7 at 84-85; Ex. CAP-105 (CAP-NET-3-10); Tr. 793:12-19).

generally, both during the period shortly after the announcement of the transaction and to the present time.”²⁹⁶⁶ NETOs assert that individual stocks are more volatile than averages,²⁹⁶⁷ so the very slight difference between the DJUA and TECO’s stock prior to the DCF analysis period is unremarkable. NETOs contend that the bulk of the divergence between TECO’s stock price and the DJUA shown in CAP-128 and CAP-129 occurred *before* the October 20, 2014 coal sale announcement.²⁹⁶⁸

867. NETOs assert that this small transaction became even smaller by the time Dr. Avera filed his update testimony. According to NETOs, on February 6, 2015, TECO announced that the cash sale price had declined by a third, to \$80 million, with \$60 million in possible contingencies.²⁹⁶⁹

868. NETOs state that the cash sale price of \$80 million is less than 1.5% of TECO’s roughly \$6 billion in book capitalization.²⁹⁷⁰ NETOs note for comparison that NextEra Energy was involved in the acquisition of Hawaiian Electric’s utilities for \$2.6 billion during the DCF analysis period, which involved 5.6% of NextEra’s book capitalization, and yet Ms. Joe continued to include NextEra in her proxy groups.²⁹⁷¹ NETOs similarly note that Duke was involved in a transaction involving \$2.8 billion (3.6% of Duke’s book capitalization), yet Ms. Joe continued to include Duke in her proxy group.²⁹⁷²

869. According to NETOs, these transactions were so insignificant that Ms. Joe didn’t even consider them a “close call” warranting her investigation.²⁹⁷³ NETOs state that, in contrast to the announced sale of TECO’s coal operations, which had no impact on TECO’s credit ratings, Ms. Joe’s workpapers indicate that Duke’s sale of its Midwest generation assets was significant enough to prompt an upgrade in S&P’s credit rating.²⁹⁷⁴ NETOs assert that even this development was not considered significant enough to prompt examination by Ms. Joe. According to NETOs, Ms. Joe testified that in determining whether to exclude a member of the proxy group on M&A grounds, she looks at the size of the transaction, but that is not her exclusive criterion.²⁹⁷⁵ NETOs note that Ms. Joe said she also looks at the impact of the transaction on DCF inputs – stock prices, dividends and growth rates.²⁹⁷⁶ NETOs state that Ms. Joe admitted that she did not look at how Duke’s or NextEra’s stock price changed relative to the industry average or

²⁹⁶⁶ *Id.* at 47 (citing Ex. CAP-105 (CAP-NET-3-7)).

²⁹⁶⁷ Tr. 979:11-980:2.

²⁹⁶⁸ *Id.*

²⁹⁶⁹ *Id.* (citing Ex. NET-1700 at 6; Ex. S-5 at 10).

²⁹⁷⁰ *Id.* (citing Ex. NET-1700 at 6).

²⁹⁷¹ *Id.* (citing Tr. 1050:11-1051:23; Ex. NET-1712 at 65; Ex. S-6 at 1).

²⁹⁷² *Id.* (citing Tr. 1046:11-13, 1048:3-23; Ex. NET-1712 at 57).

²⁹⁷³ *Id.* at 48 (citing Tr. 1052:12-16).

²⁹⁷⁴ *Id.*, n.52 (citing Ex. S-7 at 62; Tr. 1049:3-14).

²⁹⁷⁵ *Id.* (citing Tr. 1049:23-1050:5).

²⁹⁷⁶ *Id.* (citing Tr. 1049:17-1050:9).

any other price index.²⁹⁷⁷ According to NETOs, Ms. Joe's actions lead to only one conclusion: for small transactions like these, there is no need to look at stock price data, since such small transactions have no measurable impact.

870. According to NETOs, Ms. Joe and Drs. Woolridge and Wilson all removed TECO from their proxy group for the updated DCF, but only Ms. Joe asserted that the DCF inputs were materially affected by the announced sale of TECO's coal subsidiary. NETOs contend that the other witnesses removed TECO without any explanation, which flatly fails to satisfy the requirements of Opinion No. 531. NETOs note that Ms. Joe states that TECO's stock jumped 15% in the approximately three months after the announcement of the sale as compared to the approximately two months before the announcement, in contrast to the 4% change in the S&P 500. S-5 at 10-11. NETOs contend that that is the sole evidence Ms. Joe presents.²⁹⁷⁸

871. NETOs contend that, without explanation, Ms. Joe uses as her starting point TECO's average stock price over the seven weeks prior to the announcement of the proposed coal sale (\$17.35),²⁹⁷⁹ rather than its closing price the day prior to the announcement of the transaction (\$18.29). Had Ms. Joe used the TECO's closing price on October 17, 2014 (\$18.29) as a starting point, NETOs argue that the TECO's stock price increase she observed would have been 8.7%, not 15%. NETOs contend that use of October 7, 2014 would have been logical.²⁹⁸⁰ According to NETOs, Ms. Joe's discussion of the S&P 500 index suffers from the same flaws. Had she used the S&P 500 index level on October 17, 2014 (1886.76) as a starting point rather than 1962.56,²⁹⁸¹ the increase she observed would have been 7.8%, not 4% – a less than 1% difference from the TECO stock price change (8.7% minus 7.8%) over the same time period.²⁹⁸²

872. NETOs argue that Ms. Joe improperly truncates her analysis on February 6, 2015, after which the slight increase in TECO's stock price vs. the S&P observed in the table above reversed, rather than continuing through the end of the DCF analysis period.²⁹⁸³ NETOs assert that she did this based on the fact that the coal sales price declined by \$40 million on February 6, 2015. NETOs argue that this was a very minor change to a minor transaction, since it impacted a \$6 billion company by only \$24 million after taxes, and that small decrease was offset by a \$10 million increase in the contingency.²⁹⁸⁴ According to NETOs, a more appropriate comparison would have been over the full DCF analysis

²⁹⁷⁷ *Id.* (citing Tr. 1050:6-9, 1052:2-19).

²⁹⁷⁸ *Id.*

²⁹⁷⁹ Ex. S-7 at 83.

²⁹⁸⁰ Tr. 794:2-4.

²⁹⁸¹ Ex. S-7 at 85.

²⁹⁸² NETOs IB at 49.

²⁹⁸³ *Id.*

²⁹⁸⁴ *Id.* at 50 (citing Tr. 573:13-14; 991:4-992:9.59).

period, which shows no price distortion.²⁹⁸⁵

873. NETOs state that Ms. Joe's comparison was between TECO's stock price with that of the broader stock market.²⁹⁸⁶ NETOs liken this to an apples and oranges comparison, because utilities tend to move together and not necessarily in the same manner as the broader market, as represented by the S&P 500.²⁹⁸⁷ NETOs contend that Ms. Joe's analysis, when corrected, ended up showing that TECO's stock price and broader market tracked very closely. More importantly, Dr. Avera showed that TECO's stock price followed the industry trend during the six-month DCF analysis period for Complaint III.²⁹⁸⁸ NETOs assert that Ms. Joe thus presented no valid evidence of distortion in TECO's stock price due to the coal transaction. NETOs conclude that the evidence strongly shows that TECO's stock price tracked closely with that of the utility index.²⁹⁸⁹

874. NETOs assert that on June 30, 2015, Trial Staff in the Southwestern Public Service Company proceeding stated that TECO should not be removed from the proxy group used to set SPS's ROE for transmission service due to M&A activity.²⁹⁹⁰ NETOs state that the witness argued that the transaction was too small to warrant removal and that there was no evidence of DCF distortion.

875. NETOs assert that Dr. Avera performed his DCF analyses for the Complaint III periods in accordance with Opinion No. 531.²⁹⁹¹ NETOs contend that Dr. Avera developed a proxy group using the proxy group criteria adopted in Opinion No. 531.²⁹⁹² NETOs assert that for both the dividend yield and growth rates, Dr. Avera used the most recent data available, as prescribed in the Complaint III Hearing Order.²⁹⁹³

876. NETOs contend that Drs. Woolridge's and Wilson's and Ms. Joe's DCF analyses generally contained the same categories of errors and inconsistencies with Opinion No. 531 as their Complaint II refund period analyses, which are described above. According to NETOs, the discussion of the use of IBES growth rates published on *Yahoo! Finance*, exclusion of companies with one analyst's growth rate forecast, use of Value Line growth rates, and dividend yield calculations, with respect to Complaint II, are all equally applicable to Complaint III.

²⁹⁸⁵ *Id.* (citing Tr. 989:8-991:10).

²⁹⁸⁶ *Id.* (citing Ex. S-5 at 10-11).

²⁹⁸⁷ *Id.* (citing Tr. 646:14-22, 908:4-7; Ex. NET-1500 at 43-44).

²⁹⁸⁸ *Id.* (citing Ex. NET-1700 at 6).

²⁹⁸⁹ *Id.*

²⁹⁹⁰ *Id.* at 51 (citing Prepared Direct Testimony of Douglas M. Green, S-1 at 34-35 (Docket No. EL15-8)).

²⁹⁹¹ *Id.* at 44 (citing Ex. NET-1300 at 3, 5, 56).

²⁹⁹² *Id.* (citing Ex. NET-1300 at 14; Ex. NET-1700 at 3; Ex. NET-1703 at 1).

²⁹⁹³ *Id.* (Ex. NET-1700 at 1; Complaint III Hearing Order at P 27).

877. NETOs state that Dr. Avera's growth rate for TECO was 9.2%. NETOs assert that this IBES growth rate estimate comes from Yahoo! Finance, the same source endorsed by the Commission in Opinion No. 531. NETOs state that during cross-examination, counsel for the CAPs introduced into the record several analysts' estimates of TECO's growth rate that were below 9.2%. NETOs argue that evidence admitted on redirect shows that Morningstar, a well-respected investment advisory firm, projected a growth rate of 11.9% for TECO. NETOs contend that this demonstrates that the CAPs' "sample" was one-sided and therefore meaningless.²⁹⁹⁴ NETOs contend that presiding judge and the Commission confronted – and rejected – this very same tactic in EL11-66. NETOs assert that in that case, the CAPs', EMCOS, and Staff all offered non-IBES alternatives to the IBES growth rate from Yahoo! Finance for UIL Holdings, when the DCF result for that company emerged at the top end of the proxy group range.²⁹⁹⁵ NETOs state that the Commission ruled that for consistency purposes, it was "inappropriate to use estimates from different sources for different proxy group companies."²⁹⁹⁶

C. Findings and Conclusions

878. To the extent that the opposing parties' arguments repeat their arguments used in Section II (Complaint II), the undersigned denies them for the same reasons addressed earlier. The Complaint III DCF Study Period is November 1, 2014 through April 30, 2015.

(i) TECO's New Mexico Gas Company Acquisition

879. Participants assert that TECO completed a significant acquisition with New Mexico Gas Company and expanded TECO's customer base by 50% and therefore TECO should be excluded from NETOS' proxy group.²⁹⁹⁷ However, the undersigned finds that the acquisition was completed *before* the beginning of the study period used to calculate the updated DCFs for the Complaint III periods and concludes that TECO should not be excluded from the proxy group *on that reason alone*.

880. NETOs assert that Ex. NET-1304 at 1, note (a),²⁹⁹⁸ supports the proposition that the acquisition was completed *before* the beginning of the study period used to calculate the updated DCFs for the Complaint III periods. "[N]ote (a)" states: "(a) Six-month average dividend yield."²⁹⁹⁹ The undersigned finds that note "a" does not speak to the transaction and by itself is inconclusive to support NETOs' argument. However, this

²⁹⁹⁴ *Id.* at 51 (citing Tr. 1002:1-1003:9).

²⁹⁹⁵ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 81-85).

²⁹⁹⁶ *Id.* (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 90).

²⁹⁹⁷ NETOs RB at 64 (citing Ex. NET-1304 at 1, note (a); Ex. NET-1937 at 1).

²⁹⁹⁸ *Id.* at 45.

²⁹⁹⁹ Ex. NET-1304 at 1, note (a).

finding does not disturb the undersigned's conclusions below that it was proper to include TECO in the NETO proxy group.

(ii) TECO's Coal subsidiary sale

a. October 2014 coal spin off announcement predates study period

881. On October 20, 2014, TECO announced that it had reached an agreement to sell its coal subsidiary. NETOs contend that this was a minor transaction because the initial \$120 million cash sale price comprised only about 2% of TECO's assets.³⁰⁰⁰ Moreover, the undersigned points out the October 2014 sale announcement predated the November 2014 onset of the six-month study period.

b. Stock Increase Predated Study Period

882. NETOs contend that when Dr. Avera prepared his May 29, 2015 update testimony, he determined that a review of then-current information confirmed that there was no rationale to remove TECO from the proxy group for the updated study period November 2014 through April 2015.³⁰⁰¹

883. However because of the requirement to rely on the most recent data, a complication in Dr. Avera's analysis arose. NETOs point out that:

Value Line's November 21 report for TECO noted an 8% stock price increase since the time of the coal sale announcement. While Value Line did not attribute causality, Dr. Avera's February 2, 2015 DCF analysis for Complaint III ... removed TECO from his proxy group in an abundance of caution. He testified that in making that decision, he relied exclusively on Value Line's report, Tr. 572:10-573:7, and that had he done further analysis, he would *not* have eliminated TECO from his February 2, 2015 proxy group based on information available at that time. Tr. 790:4-7. He added that during the time period referred to by Value Line, "the industry uniformly went up, many of the companies more than at TECO."³⁰⁰²

884. Dr. Avera's, February 2015 DCF study is superseded by his May 29, 2015 update. After reviewing the persuasive evidence from Avera's May update and relevant testimony, TECO should not be removed from the NETO proxy group.

885. NETOs contend that Ex. S-7 shows that TECO's closing price on October 31,

³⁰⁰⁰ NETOs IB at 45-46 (citing CAP-99, CAP-100; Tr. 573:12-574:5, 799:22-23).

³⁰⁰¹ *Id.* at 46 (citing Ex. NET-1700 at 4 (footnote omitted)).

³⁰⁰² *Id.* at 46, n.45 (citing Tr. 790:7-12, 798:21-25).

2014 was \$19.61. S-7 at 83, row 10/31/14, “Close” column. On November 21, the day of the Value Line report, the closing price was exactly the same, \$19.61. S-7 at 82, row 11/21/14, close column. Thus, the price rise to which the November 21, 2014 Value Line report referred occurred entirely in October 2014, prior to the DCF analysis period. In addition, as discussed herein, the price change for TECO between October 17 and October 31 was in line with that of other utilities, utility industry trends, and overall market trends.³⁰⁰³ The undersigned finds that the record supports NETOs’ contention. The undersigned finds and concludes that TECO’s closing price on October 31, 2014 was the same as November 21, 2014. The undersigned finds that the eight percent price rise that occurred after the TECO’s announcement of its coal subsidiary spin off predated the six-month study period.

c. Stock Price Increase Paralleled Broad Market and DJUA

886. NETOs further argue that the increase in TECO stock price paralleled the S&P 500 index and the DJUA. NETOs point out that from October 17, 2014, to October 31, 2014, TECO’s stock price rose 7.2%. S-7 at 83, rows 10/31/14 and 10/17/14, “Close” column $((19.61-18.29)/18.29=7.2\%)$. And, that during that same time period, the S&P 500 rose 7.0%, virtually the same. S-7 at 85, rows 10/31/14 and 10/17/14, close column $((2018.05-886.76)/1886.76=7.0\%)$.³⁰⁰⁴ The undersigned finds that the record supports the closing stock prices of TECO and the closing averages of the S&P 500. The undersigned sees no error in NETOs’ computation of averages from those closing figures, and finds that none of the parties have challenged the calculations. The undersigned adopts the closing figures and calculations, and concludes that TECO’s stock price, which predated the six-month study period, also was paralleled the increase in the S&P 500.

887. The NETOs also rely on two charts and the expert opinion from Dr. Avera to compare the rise in TECO’s stock with that of the (Dow Jones Utility Average (DJUA)).³⁰⁰⁵ NETOs argue that Dr. Avera opined that “changes in TECO’s stock price since the announced sale of TECO’s coal mining subsidiary are in line with other utilities and the utility industry generally, both during the period shortly after the announcement of the transaction and to the present time.”³⁰⁰⁶ He pointed out that individual stocks are more volatile than averages, so the very slight difference between the DJUA and TECO’s stock prior to the DCF analysis period is unremarkable.³⁰⁰⁷ NETOs conclude that the most of the divergence between TECO’s stock price and the DJUA shown in Ex. CAP-128 and Ex. CAP-129 occurred *before* the October 20, 2014 coal sale announcement. The undersigned finds that NETOs’ arguments and Dr. Avera’s opinion are supported by

³⁰⁰³ *Id.* at 46 n.46.

³⁰⁰⁴ *Id.* at 46 n.47 (citing Ex. CAP-128; Ex. S-7 at 84-85; Ex. CAP-105 (CAP-NET-3-10); Tr. 793:12-19).

³⁰⁰⁵ *Id.*

³⁰⁰⁶ *Id.* at 47 (citing Exs. CAP-128 and CAP-105 (CAP-NET-3-7)).

³⁰⁰⁷ *Id.* (citing Tr. 979:11-980:2).

the record and that Participants have not put forth sufficient contrary and persuasive evidence to persuasively demonstrate that NETOs' arguments are infirm.

(iii) TECO Coal Subsidiary Spinoff Declines in Value During Study Period

888. NETOs argue that on February 6, 2015, TECO announced that the cash sale price of its coal subsidiary had declined by a third, to \$80 million, with \$60 million in possible contingencies.³⁰⁰⁸ They argue that the cash sale price of \$80 million is less than 1.5% of TECO's roughly \$6 billion in book capitalization.³⁰⁰⁹ To put it into perspective, NETOs point out that Dr. Avera opined that "we're talking about a one-time event that is about 10 cents a share, a one-time event that has no recurring effect on the company, and I can't believe that that would be material to investors or distort the inputs to the DCF."³⁰¹⁰ The undersigned finds that NETOs arguments are supported by the record, and are persuasive.

a. Use of Expert Testimony Outside of These Proceedings Inappropriate

889. NETOs urge the undersigned and Commission to take into account the TECO testimony from another Staff witness in a contemporaneous but separate FERC proceeding.³⁰¹¹ NETOs' July 23, 2015 motion to lodge the testimony was denied by the undersigned on August 13, 2015.³⁰¹² The undersigned declines to review that testimony as it is outside this proceeding and was not subject to cross-examination by counsel herein. To accept that testimony would violate the other parties' rights to due process and equal protection.

b. Truncating the Analysis in February 2015 Is Inappropriate

890. The undersigned finds that, contrary to the CAPS *et al*'s arguments, it would have been inappropriate to truncate Dr. Avera's analysis of the New Mexico Gas acquisition and the TECO coal subsidiary sale transactions in the middle of February 2015. NETOs' point out that Dr. Avera convincingly testified that a more appropriate comparison would have been over the full DCF analysis period; that comparison shows no price distortion.³⁰¹³

³⁰⁰⁸ *Id.* (citing Ex. NET-1700 at 6; Ex. S-5 at 10).

³⁰⁰⁹ *Id.* (citing Ex. NET-1700 at 6).

³⁰¹⁰ *Id.*, n.49 (citing Tr. 992:19-23).

³⁰¹¹ *Id.* at 50, n.61 (citing *Southwestern Public Service Company*, Docket No. EL15-8).

³⁰¹² Order Denying Motion to Lodge, August 13, 2015.

³⁰¹³ NETOs RB at 66 citing Tr. 989:8-991:9.

891. NETOs point out that Dr. Avera testified that it was inappropriate to subdivide the DCF analysis period in this manner, and that when the entire period is considered, the stock price change closely mirrored the change in the DJUA and did not demonstrate any stock price distortion due to the coal transaction.³⁰¹⁴ Dr. Avera further testified that the February 6, 2015 dividing point for this comparison was inappropriate because the change in the coal transaction that day was minor.³⁰¹⁵

892. The undersigned finds that the NETOs' arguments are supported by the record and are persuasive. The undersigned finds and concludes that it would have inappropriate to stop or divide the analysis at February 6, 2015 instead of using the entire DCF analysis period.

c. SNL Index Inappropriate

893. The undersigned further finds that Participants' insistence on using the SNL index is not well taken because the index is comprised of electric, gas, diversified and merchant companies.³⁰¹⁶ None of the Participants have pointed to any expert witness testimony opining that the SNL index is an appropriate index against which to measure TECO's stock price performance for purposes of determining whether the coal announcement distorted TECO's stock price.³⁰¹⁷ The undersigned adopts and relies upon the testimony of Dr. Avera wherein he opined that the most appropriate index for comparison purposes was the DJUA.³⁰¹⁸

894. The October 2014 coal sale announcement was made *before* the six-month DCF study period, as did the stock price increase to which the November 21, 2014 Value Line had referred (all of the increase to which Value Line referred occurred in October 2014). Dr. Avera testified that "there is no evidence that [the coal sale] has resulted in any ongoing distortion to TECO's stock price during the analysis period that would lead to distortion in the resulting DCF values."³⁰¹⁹

d. Dr. Avera Did Not Equivocate

895. CAPS and Staff assert that Dr. Avera testified that whether to include TECO in the NETO proxy group was a "close call" and that that term evidences that NETOs' expert witness equivocated.³⁰²⁰ The undersigned disagrees and finds that it shows the witness's

³⁰¹⁴ *Id.* at 67 (citing Tr. 989:8-991:10).

³⁰¹⁵ *Id.* (citing Tr. 573:13-14, 991:4-992:9).

³⁰¹⁶ Ex. S-25 at 3.

³⁰¹⁷ NETOs RB at 66, 69.

³⁰¹⁸ *Id.* at 67 (citing Tr. 908:10-12).

³⁰¹⁹ *Id.* at 46.

³⁰²⁰ *Id.* at 73 (citing CAPS IB at 33; Staff IB at 53, n.43).

veracity and details his deliberative process as the landscape surrounding the TECO transactions changed through the passage of time.

896. NETOs' expert explained his process and analyses:

I first look to Value Line, and when I look to Value Line, if based on that review it looks like a very large transaction or one that would change the estimates or the dividend or something of that nature, then I say it is excluded.”³⁰²¹ “When we get to a close call, as we did with TECO in this period, *then* I go and start looking at prices and comparing it to what was going on in the market.”³⁰²²

897. The undersigned finds that Dr. Avera did not equivocate in his testimony or opinions.

(iv) Summary of Findings and Conclusions

898. The undersigned finds that the TECO coal subsidiary sales transaction at the time it was announced only involved two percent of TECO's assets and does not amount to a significant or major transaction.

899. The undersigned finds that NETOs put forth sufficient credible and persuasive evidence to establish that TECO should be included in the NETO proxy group. The undersigned finds that despite days of cross-examining Dr. Avera, Participants did not put forth sufficient probative evidence to rebut Dr. Avera's opinions.

900. In Opinion No. 531, the Commission rejected CAPs' attempt to replace the IBES growth rate for the proxy group member with the highest DCF result with a lower, non-IBES number.³⁰²³ Here, CAPs advocate throwing out TECO's IBES EPS growth rate and TECO along with it.³⁰²⁴ If the undersigned finds there is no reason to reject TECO or its EPS growth rate, then CAPs alternatively suggest that the undersigned still lower the ROE's placement within the range of reasonableness to something near the 60th or 75th “percentile.”³⁰²⁵ CAPs also assert that the IBES growth rate for TECO should be not be used because it is a “one analyst sample that distorts ‘the different analyst estimates’ that were available to study-period investors.”³⁰²⁶

901. The undersigned rejects CAPs' attempts to throw out TECO's growth rate. As explained in Section II above, the Commission, in Opinion No. 531, decided that the

³⁰²¹ *Id.* at 73 (citing Tr. 943:20-24).

³⁰²² *Id.* (citing Tr. 943:25-944:2 (emphasis in the brief)).

³⁰²³ Opinion No. 531, 147 FERC ¶ 61,234 at PP 84-85, 88-91.

³⁰²⁴ CAPs IB at 33.

³⁰²⁵ *Id.* at 34.

³⁰²⁶ *Id.* at 32.

number of analysts representing the *Yahoo! Finance* IBES growth rate is irrelevant.³⁰²⁷ And again, as laid out above, the Commission relies upon the IBES growth rate from *Yahoo! Finance* because it represents a source relied on by investors.³⁰²⁸ Moreover, NETOs are correct when they argue that the conclusion about the number of analysts is a supposition of counsel derived from documents presented to Dr. Avera in cross-examination that is not supported by Dr. Avera or any other expert testimony.

902. Shortly before he filed his testimony, Dr. Woolridge attempted to get a Wells Fargo analyst to change his estimate on ITC Holdings to conform with Dr. Woolridge's views. The undersigned finds that such conduct is not well taken. As NETOs assert, two days prior to submitting his May 29 testimony, Dr. Woolridge emailed the Wells Fargo analyst, suggesting that the growth rate for ITC Holdings should be 9.4%, not 13.0%.³⁰²⁹ Dr. Woolridge's testimony did not mention the phone call response he received from the analyst the same day: "the 13 percent number is right."³⁰³⁰ Dr. Woolridge's May 27 email to the analyst made no mention that Dr. Woolridge was a witness in a FERC proceeding that was going to trial the next month and that this analyst's growth rate would likely constitute evidence at that trial. NETOs state that during redirect examination, Dr. Woolridge stated that the communication with the analyst occurred after his testimony was filed and therefore could not have been an attempt to influence something that had already happened.³⁰³¹ NETOs contend that the email³⁰³² shows that this statement was inaccurate. The undersigned agrees with NETOs.

903. The undersigned finds that the record does not support reduction of the 11.93% IBES growth rate for ITC. There is no dispute that 11.93% is the published IBES estimate. Thus, according to the Commission in Opinion No. 531, 11.93% is the growth rate for ITC that investors relied upon.³⁰³³

3.1.1 What array and range of DCF results should be considered in reviewing the ROE for that period?

A. Participants

904. CAPs do not state a zone of reasonableness.

905. EMCOS state that Dr. Wilson's DCF methodology produces a zone of

³⁰²⁷ Opinion No. 531, 147 FERC ¶ 61,234 at P 91.

³⁰²⁸ *Id.* at PP 88-91.

³⁰²⁹ NETOs IB at 51 (citing Ex. CAP-153).

³⁰³⁰ *Id.* (citing Tr. 104:2-4, 105:2-6).

³⁰³¹ *Id.* at 51, n.65 (citing Tr. 176:3-22, 177:24-25 (the email was sent "long after I had filed my testimony, my update"))).

³⁰³² Ex. CAP-153.

³⁰³³ NETOs IB at 53 (citing Opinion No. 531, 147 FERC ¶ 61,234 at P 88).

reasonableness from 6.34 percent to 11.16 percent.³⁰³⁴

906. Staff asserts that Ms. Joe's DCF I analysis results in a zone of reasonableness is 6.45 percent to 10.92 percent. Based on these results, Staff argues that base ROE should be set at the midpoint of 8.68 percent, and the maximum ROE should be no higher than 10.92 percent. Should the Presiding Judge adopt Ms. Joe's DCF II analysis, Staff asserts that the zone of reasonableness is 6.33 percent to 11.15 percent, the base ROE should be set at the midpoint of 8.74 percent, and the maximum ROE should be no higher than 11.15 percent.

B. NETOs

907. NETOs assert that Dr. Avera's application of the DCF methodology based on IBES data produced a zone of reasonableness of 7.12% to 12.25%, with a midpoint of 9.68% and midpoint of the upper half of the range of 10.97%. NETOs state that Dr. Avera's application of the DCF methodology based on Value Line data resulted in a zone of reasonableness of 6.08% to 12.20%, with a midpoint of 9.14% and a midpoint of the upper half of the range of 10.67%.³⁰³⁵ NETOs contend that these are the array and range of DCF results that should be considered in reviewing the ROE, in conjunction with the other evidence, discussed below.

C. Findings and Conclusions

908. The undersigned's findings and conclusions here parallel the findings and conclusions of Section 2 above. The undersigned rejects CAPs' and EMCOS' DCF analyses for containing the same fatal flaws as laid out in Section 2 above and for improperly excluding TECO from the proxy group. The undersigned rejects Staff's DCF analysis for improperly excluding TECO from the proxy group. For the same reasons laid out in Section 2 above, the undersigned rejects NETOs' witness Dr. Avera's Value Line-based proxy group.

909. The undersigned substantially accepts NETOs' witness Dr. Avera's *Yahoo! Finance*-based DCF analysis and results as amended during the reopening of the record. This proxy group, as represented by Exhibit No. NET-2004, fixes the errors in Dr. Avera's original methodology, which used improper dividend yield calculations and an outdated GDP growth rate. Dr. Avera's proper proxy group is displayed below:

[This space is left intentionally blank]

³⁰³⁴ EMCOS IB at 46.

³⁰³⁵ NETOs IB at 56 (citing Ex. NET-1700 at 15).

Official Copy

IBES DCF COMPLAINT III (EL14-86)

Exhibit No. NET-2004

Page 1 of 1

GDP GROWTH - 4.36%

	Company	Dividend Yield			Growth Rate			Cost of Equity
		6-Mo. Average	Adjustment	Adjusted	IBES	GDP	Weighted	
		(d)	(e)		(f)	(g)	(h)	(i)
1	ALLETE	(a) 3.71%	1.0273	3.81%	6.00%	4.36%	5.45%	9.26%
2	Alliant Energy	(b) 3.30%	1.0254	3.38%	5.45%	4.36%	5.09%	8.47%
3	Ameren Corp.	(b) 3.76%	1.0268	3.86%	5.85%	4.36%	5.35%	9.21%
4	American Elec Pwr	(b) 3.60%	1.0243	3.69%	5.10%	4.36%	4.85%	8.54%
5	Avista Corp.	(a) 3.73%	1.0239	3.82%	5.00%	4.36%	4.79%	8.61%
6	Black Hills Corp.	(a) 3.07%	1.0306	3.16%	7.00%	4.36%	6.12%	9.28%
7	CenterPoint Energy	(b) 4.36%	1.0136	4.42%	1.91%	4.36%	2.73%	7.15%
8	CMS Energy Corp.	(b) 3.21%	1.0297	3.31%	6.73%	4.36%	5.94%	9.25%
9	Consolidated Edison	(b) 3.99%	1.0155	4.05%	2.48%	4.36%	3.11%	7.16%
10	Dominion Resources	(b) 3.33%	1.0269	3.42%	5.89%	4.36%	5.38%	8.80%
11	DTE Energy Co.	(b) 3.29%	1.0223	3.36%	4.51%	4.36%	4.46%	7.82%
12	Duke Energy Corp.	(b) 3.92%	1.0222	4.01%	4.49%	4.36%	4.45%	8.45%
13	Edison International	(b) 2.46%	1.0096	2.48%	0.70%	4.36%	1.92%	4.40%
14	El Paso Electric	(a) 2.89%	1.0306	2.98%	7.00%	4.36%	6.12%	9.10%
15	Empire District Elec	(b) 3.81%	1.0239	3.90%	5.00%	4.36%	4.79%	8.69%
16	Eversource Energy	(b) 3.09%	1.0293	3.18%	6.60%	4.36%	5.85%	9.03%
17	Great Plains Energy	(b) 3.54%	1.0303	3.65%	6.90%	4.36%	6.05%	9.70%
18	IDACORP, Inc.	(b) 2.95%	1.0206	3.01%	4.00%	4.36%	4.12%	7.13%
19	ITC Holdings Corp.	(b) 1.67%	1.0470	1.75%	11.93%	4.36%	9.41%	11.16%
20	NextEra Energy, Inc.	(b) 2.82%	1.0287	2.90%	6.44%	4.36%	5.75%	8.65%
21	NorthWestern Corp.	(b) 3.42%	1.0239	3.50%	5.00%	4.36%	4.79%	8.29%
22	OGE Energy Corp.	(b) 2.94%	1.0206	3.00%	4.00%	4.36%	4.12%	7.12%
23	Otter Tail Corp.	(a) 3.91%	1.0273	4.02%	6.00%	4.36%	5.45%	9.47%
24	PG&E Corp.	(b) 3.40%	1.0230	3.48%	4.71%	4.36%	4.59%	8.07%
25	Pinnacle West Capital	(b) 3.64%	1.0229	3.72%	4.70%	4.36%	4.59%	8.31%
26	Portland General Elec.	(b) 2.99%	1.0230	3.06%	4.72%	4.36%	4.60%	7.66%
27	Pub Sv Enterprise Grp	(a) 3.63%	1.0168	3.69%	2.85%	4.36%	3.35%	7.04%
28	Sempra Energy	(b) 2.42%	1.0337	2.50%	7.93%	4.36%	6.74%	9.24%
29	Southern Company	(b) 4.43%	1.0183	4.51%	3.32%	4.36%	3.67%	8.18%
30	TECO Energy	(c) 4.43%	1.0379	4.60%	9.20%	4.36%	7.59%	12.19%
31	Vectren Corp.	(b) 3.36%	1.0256	3.45%	5.50%	4.36%	5.12%	8.57%
32	Westar Energy	(b) 3.56%	1.0186	3.63%	3.40%	4.36%	3.72%	7.35%
33	Xcel Energy Inc.	(b) 3.57%	1.0225	3.65%	4.58%	4.36%	4.51%	8.16%
Range of Reasonableness								4.40% -- 12.19%
Adjusted Range of Reasonableness (h)								7.04% -- 12.19%
Midpoint								9.62%
Middle - Top Half of DCF Zone								10.90%

(a) Exhibit No. EMC-13 at page 1.

(b) Exhibit No. S-6 at page 1.

(c) Exhibit No. NET-2006.

(d) $1 + 0.5 \times (f)$.(e) $(a) \times (b)$.

(f) Exhibit NET-1703, page 1.

(g) Order to Reopen Record at P 14 (Dec. 18, 2015).

(h) $(d) \times 2/3 + (e) \times 1/3$.(i) $(c) + (f)$.

3.2 Other Information Related to that Period

A. Participants

910. Participants repeat their arguments from Section 2 above. CAPs briefs did not follow the Joint Statement of the Issues as agreed upon by all parties. The undersigned has endeavored to lay out their arguments in a coherent fashion.

911. EMCOS again contend that the Commission should consider information regarding the NETOs' financial risk and common equity ratios as they compare to those of the national proxy group members. EMCOS again argue that the Commission's primary obligation is to ensure that an allowed rate of return satisfies the capital attraction requirements of Hope and Bluefield, but does not go beyond those requirements.³⁰³⁶ EMCOS again assert that satisfying this obligation requires that the Commission consider the relative risk the NETOs face.³⁰³⁷ EMCOS assert that Dr. Wilson testifies that the NETOs' simple average common equity ratio was 55.7 percent at December 31, 2013, as compared to the Complaint III national proxy group which had a simple common equity ratio of 48.63 percent in 2014, and is forecasted to be 48.65 in 2015.³⁰³⁸ Therefore, EMCOS argue, there is a 7.05 percentage point disparity between the NETOs and national proxy group for this period. EMCOS state that Dr. Wilson testifies that this disparity can be offset by a 110 basis point ROE adjustment.³⁰³⁹ EMCOS assert that the adjusted ROE is 7.63 percent.³⁰⁴⁰

912. As discussed above, Staff argues that the NETOs currently enjoy highly favorable conditions for raising capital. Staff asserts that this is a fact that none of the expert witnesses dispute. According to Staff, the fact that the NETOs currently enjoy highly favorable conditions for raising capital warrants placement of the base ROE at the midpoint of the range of reasonable results. As also noted above, Staff contends that the Commission's reliance on state-authorized ROEs in Opinion No. 531 to corroborate

³⁰³⁶ EMCOS IB at 51-52 (citing Morgan Stanley Group Inc., 554 US at 564 ("Congress enacted the FPA precisely because if concluded that regulation was necessary to protect consumers from deficient markets."); Opinion No. 531-B, 150 FERC ¶ 61,165, 62,155 (Commissioner Honorable concurring) ("As intended by Congress and confirmed by the Courts, consumer protection is in the DNA of FERC's ratemaking authority. Opinion No. 531 does not, and cannot, change that fact"); Midwest Indep. Transmission Sys. Operator, 141 FERC ¶ 63,021, at P 525 (2012) ("the Court has stated that the FPA 'was so framed as to afford consumers a complete, permanent and effective bond of protection from excessive rates and charges.'") (citing Atlantic Refining Co., 360 U.S. at 288)).

³⁰³⁷ *Id.* at 52.

³⁰³⁸ *Id.* (citing Ex. EMC-11 at 10:12-16).

³⁰³⁹ *Id.* (citing Ex. EMC-11 at 11:6-8).

³⁰⁴⁰ *Id.* (citing Ex. EMC-11 at 15:4-6).

placement of the base ROE within the zone of reasonableness is an exception to the Commission's general policy. Moreover, Staff argues that Ms. Lapson's presentation of state-authorized ROEs is fatally flawed and should not be relied upon. Staff contends that they have also pointed out flaws in Dr. Avera's use of state-authorized ROEs from 1974-2014 for an alternative risk premium analysis which the Commission did not rely on in Opinion No. 531. Accordingly, when determining whether a base ROE set at the midpoint will be sufficient to attract capital, Staff concludes that current market conditions do not warrant use of other extraordinary measures to corroborate placement within the zone of reasonableness.³⁰⁴¹

B. NETOs

913. NETOs repeat their arguments from Section 2 above. NETOs assert that the forward-looking CAPM estimates produce an ROE range of 7.50% to 12.61%, with a midpoint of 10.06%.³⁰⁴² NETOs assert that the electric utility risk premium approach should be used in evaluating the NETOs' ROE. NETOs state that Dr. Avera's electric utility risk premium analysis based on Commission-authorized ROEs for electric utilities implies a current cost of equity for electric utilities of 10.36% for the.³⁰⁴³ NETOs assert that Value Line's current projections indicate an average rate of return for the electric utility industry of 10.62% for the 2015-2017 forecast horizon.³⁰⁴⁴ NETOs state that Value Line's projections for the National Group suggest an adjusted ROE range of 7.61% to 16.37%, with a midpoint of 11.99%.³⁰⁴⁵ NETOs state that the range of state commission-authorized ROEs for integrated electric utilities is 9.50%-10.95%.³⁰⁴⁶ NETOs assert that Dr. Avera's utility risk premium approach based on state-approved ROEs for electric utilities implies an ROE point estimate of 10.06%,³⁰⁴⁷ with state-approved ROEs for the proxy group companies falling in the range of 9.19% to 12.50% for the Complaint III periods, with a midpoint of 10.84%.³⁰⁴⁸ NETOs contend that, as in Opinion No. 531, the significant discrepancy between state-approved ROEs for the proxy group and the 9.68% DCF midpoint (Avera's analysis using IBES growth rates) serves as an indicator that an upward adjustment is necessary to satisfy *Hope* and *Bluefield*.³⁰⁴⁹

³⁰⁴¹ Staff IB at 58.

³⁰⁴² NETOs IB at 55 (see Ex. NET-1700 at 12, 15-16; Ex. NET-1702 at 1; Exs. NET-1704 to NET-1706; see also Ex. NET-1300 at 7, 33, 36).

³⁰⁴³ *Id.* at 56 (citing Ex. NET-1700 at 12; Ex. NET-1704 at 1; Ex. NET-1702 at 1; see also Ex. NET-1300 at 7, 29, 31, 47).

³⁰⁴⁴ *Id.* (citing Ex. NET-1700 at 13; Ex. NET-1702 at 1).

³⁰⁴⁵ *Id.* (citing Ex. NET-1700 at 13; Ex. NET-1706; see also Ex. NET-1300 at 7, 38-39).

³⁰⁴⁶ *Id.* (citing Ex. NET-1800 at 2-10; Ex. NET-1801; Ex. NET-1400 at 43-50).

³⁰⁴⁷ Ex. NET-1702 at 2 and Ex. NET-1708 at 1.

³⁰⁴⁸ NETOs IB at 56 (citing Ex. NET-1707).

³⁰⁴⁹ *Id.* at 56-57 (see Ex. NET-1702 at 1; see also Ex. NET-1300 at 10-11;

914. As discussed above, NETOs argue that the anomalous capital market conditions present in the Opinion No. 531 record have continued. Generally speaking, NETOs contend that the same arguments and evidence showing anomalous capital market conditions existed in the Complaint II DCF study period apply equally to the Complaint III DCF study period. Therefore, NETOs incorporate by reference Section 2.2.2 to this section as support for capital market conditions being anomalous in the Complaint III period, except to the extent the arguments or evidence there specifically refer to only the Complaint II period.³⁰⁵⁰

915. NETOs argue that capital market conditions continued to be anomalous during the Complaint III period. Thus NETOs contend that the DCF model's results understated the NETOs' required return in the Complaint III period. NETOs assert that the results of alternative ROE methodologies and the state commission-approved ROEs reviewed above is further demonstration of this. NETOs argue that the DCF model's understated results should be recognized by setting the base ROE for the Complaint III refund and prospective periods in the upper half of the zone of reasonableness, as detailed more fully in Section 3.3.1.

916. As discussed in Section 2, NETOs argue that the ultra-low interest rate environment that has continued since Opinion No. 531 issued has been in large part the result of the Federal Reserve's unprecedented Quantitative Easing asset purchasing program. While the third phase of this program, known as QE3, ended in October 2014 (prior to the start of the Complaint III DCF study period), NETOs argue that this has not had a material impact on capital market conditions because the Federal Reserve has not yet moved away from exerting significant downward pressure on interest rates.³⁰⁵¹

917. NETOs state that there are several reasons why this is the case. First, NETOs argue that the Federal Reserve continues to hold over \$4.2 trillion in U.S. Treasury bonds and mortgage-backed securities. According to NETOs, this is an all-time record amount, which it has yet to begin divesting.³⁰⁵² NETOs state that the size of the Federal Reserve's securities holding were 3.4% of GDP at the end of 2008 and by mid-2014 were 23.7% of GDP.³⁰⁵³ According to NETOs, the sheer size of the holdings is indicative of the influence the Federal Reserve continues to exert on capital markets. Second, NETOs assert that the Federal Reserve's ongoing policy is to reinvest the interest and principal payments it receives on its holdings to make additional purchases.³⁰⁵⁴ Third, NETOs assert that the Federal Reserve continues to maintain a "target rate" for short-term interest

Opinion No. 531, 147 FERC ¶ 61,234 at P 148).

³⁰⁵⁰ *Id.* at 57.

³⁰⁵¹ *Id.* (citing Ex. NET-1300 at 75-77; Ex. NET-1400 at 16-22).

³⁰⁵² *Id.* (citing Ex. NET-1300 at 76; Ex. NET-1400 at 17-18 & fig. 1, 21-22; Tr. 437:1-439:5).

³⁰⁵³ *Id.* at 58 (citing Ex. NET-1400 at 19).

³⁰⁵⁴ *Id.* (citing Ex. NET-1300 at 76-77; Ex. NET-1400 at 17).

rates at 0% to 0.25%.³⁰⁵⁵ NETOs argue that all of these factors demonstrate that the Federal Reserve's extraordinary actions have not come to an end and that they continued to influence the capital market during the Complaint III DCF study period.³⁰⁵⁶

C. Findings and Conclusions

918. The undersigned's reasoning and findings in Section 2.2 are equally applicable here. The undersigned hereby adopts those findings for the Complaint III period.

3.3 Ultimate Issues

3.3.1. What is the proper placement of the base ROE in the zone of reasonableness?

A. Participants

919. CAPs contend that the base ROE should be placed at the 8.16% median of Ex. CAP- 69, (Dr. Woolridge's updated DCF study), or its 60th Percentile (8.48%), or its 75th Percentile (8.82%), or (if recent state commission ROE decisions are taken into account in the manner suggested by CAPs), 8.68%.³⁰⁵⁷

920. Considering both Periods together, CAPs argue that the trend in NETOs' equity costs since 2011 and from the Complaint II period to the Complaint III period, as estimated by CAPs' methods, jibes with the gradual market trends. In contrast, CAPs assert that equity costs as estimated by NETOs fluctuate erratically.³⁰⁵⁸

921. EMCOS argue that the proper base ROE is 8.145 percent, which is the midpoint of the 25th percentile ROE and the midpoint ROE of Dr. Wilson's zone of reasonableness for this period.³⁰⁵⁹ According to EMCOS, Dr. Wilson recommends this base ROE after first calculating the return on equity required to produce a weighted average cost of capital which would offset the NETOs' equity heavy capital structure. This calculation is discussed in Section 3.2.2, and results in a 7.63 percent ROE. As discussed in Section 2.3.1, EMCOS assert that Dr. Wilson recognizes the Commission's need to balance its desire to incent transmission investment against the Hope and Bluefield requirement that a just and reasonable ROE must accurately reflect a utility's risk.³⁰⁶⁰ EMCOS argue that

³⁰⁵⁵ *Id.* (citing Ex. NET-1400 at 17).

³⁰⁵⁶ *Id.*

³⁰⁵⁷ CAPs IB at 59.

³⁰⁵⁸ *Id.* at 60 (citing Ex. CAP-59).

³⁰⁵⁹ EMCOS IB at 53 (citing Ex. EMC-11 at 15:4-6).

³⁰⁶⁰ *Id.* (citing *Hope*, 320 U.S. at 603 ("A just and reasonable return is "commensurate with returns on investments in other enterprises having corresponding risks").

Dr. Wilson's recommended 8.145 percent base ROE properly incents investment while recognizing and mitigating the impact of the NETOs' equity-heavy capital structures on consumers.³⁰⁶¹

922. Staff asserts that NETOs have failed to demonstrate that anomalous market conditions exist, and even if they do, the NETOs have failed to demonstrate that anomalous market conditions warrant consideration of alternative benchmark analyses or state ROEs.³⁰⁶² Staff argues that, to the contrary, undisputed evidence in this case demonstrates that the NETOs enjoy highly favorable market conditions for attracting capital. Therefore, Staff urges the Presiding Judge to find that the midpoint of a properly conducted DCF analysis meets the requirements of *Hope* and *Bluefield*.³⁰⁶³

923. Staff asserts that NETOs' alternative benchmark analyses and presentation of state ROEs are flawed, do not support a base ROE above the midpoint of the zone of reasonableness, and should not be afforded any weight. Therefore, Staff concludes that the NETOs' base ROE should be set at the DCF I midpoint of 8.68 percent, or alternatively, at the DCF II midpoint of 8.74 percent.³⁰⁶⁴

B. NETOs

924. NETOs argue that the analysis for placement of the base ROE in the zone of reasonableness for the Complaint III periods is not materially different from the analysis for the Complaint II refund period. NETOs contend that during the Complaint III period, a mechanical application of the measure of central tendency (midpoint) to the range of results produced by the DCF model yields an ROE point estimate that would not satisfy the standards of Opinion No. 531 and *Hope* and *Bluefield*. According to NETOs, mechanical application of the DCF methodology for the Complaint III period, using the midpoint value, produces a point estimate of 9.68%, which is similar to the 9.39% point estimate rejected by the Commission as unjust and unreasonable in Opinion No. 531.³⁰⁶⁵ NETOs assert that it is also below the preponderance of the state commission-approved ROEs and far below the ROEs produced by Dr. Avera's benchmark alternatives.³⁰⁶⁶ According to NETOs, each of the alternative benchmarks used in Opinion No. 531 confirms that an upward adjustment above the midpoint of the range is necessary: (1) the risk premium analysis used by the Commission in Opinion No. 531 implies a cost of equity of 10.36%;³⁰⁶⁷ (2) the midpoint of the returns calculated using the forward-looking

³⁰⁶¹ *Id.*

³⁰⁶² Staff IB at 58.

³⁰⁶³ *Id.* at 59.

³⁰⁶⁴ *Id.*

³⁰⁶⁵ NETOs IB at 58 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 142- 52).

³⁰⁶⁶ *Id.* (citing Ex. NET-1400 at 43-50; Ex. NET-1800 at 2-10; Ex. NET-1700 at 12-16; Ex. NET-1702).

³⁰⁶⁷ Ex. NET-1700 at 12; Ex. NET-1704 at 1.

CAPM analysis of Opinion No. 531 is 10.06%;³⁰⁶⁸ and (3) the midpoint of the returns calculated using the expected earnings approach is 11.99%.³⁰⁶⁹ NETOs contend that evidence of state-authorized ROEs also confirms that mechanical application of the DCF produces a result that is unjust and unreasonable: the range of state commission-authorized ROEs for integrated electric utilities during the Complaint III refund period was 9.50% to 10.95%,³⁰⁷⁰ and the midpoint of the state commission-authorized ROEs for the proxy group was 10.84%.³⁰⁷¹ NETOs state that additional benchmark evidence provided by Dr. Avera further confirms that an upward adjustment is necessary.³⁰⁷²

925. NETOs argue that the other parties have failed to satisfy their initial burden of proof because they have not presented valid DCF or other studies that comply with Commission precedent. If the Presiding Judge nonetheless finds that sufficient evidence has been presented to proceed to the second step of the Section 206 analysis, then NETOs request that the Presiding Judge set the base ROE at 10.97%, which is the point halfway between the midpoint and the upper end of the IBES-based DCF zone of reasonableness based on Dr. Avera's DCF study that conforms with Commission precedent.³⁰⁷³ NETOs assert that this falls well within the range of the alternative benchmarks and towards the higher end of state commission-authorized ROEs. NETOs argue that this is proper given the Commission's determination that transmission investment is riskier than distribution investment.³⁰⁷⁴

926. NETOs assert that the recommended base ROEs of Dr. Woolridge, Dr. Wilson, and Ms. Joe, all predicated on analyses that do not comport with Commission precedent, fall significantly below the results of the alternative benchmarks and are below or near the lowest of the state commission-authorized ROEs and rest upon flawed analyses of capital market conditions during the Complaint III periods that are inconsistent with Opinion No. 531.³⁰⁷⁵ NETOs state that the arguments of the opposing DCF expert witnesses with respect to the Complaint III periods are fundamentally flawed and should be rejected.

927. NETOs contend that the base ROEs recommended by the CAPs, EMCOS, and Staff also would not satisfy the Hope and Bluefield standards. NETOs argue that investors would react with surprise and alarm if the Commission were to change course

³⁰⁶⁸ Ex. NET-1700 at 12; Ex. NET-1705 at 1.

³⁰⁶⁹ NETOs IB at 58-59 (citing Ex. NET-1700 at 13; Ex. NET-1706).

³⁰⁷⁰ Ex. NET-1400 at 43; Ex. NET-1800 at 5.

³⁰⁷¹ NETOs IB at 59 (citing Ex. NET-1700 at 13; Ex. NET-1707).

³⁰⁷² *Id.* (citing Ex. NET-1300 at 39-53; Ex. NET-1702 at 2; Ex. NET-1708; Ex. NET-1709; Ex. NET-1710; Ex. NET-1711).

³⁰⁷³ *Id.*

³⁰⁷⁴ *Id.* (citing Ex. NET-1700 at 16).

³⁰⁷⁵ *Id.* at 60 (citing Ex. NET-1300 at 60-62, 71; Ex. NET-1500 at 30-34; Ex. NET-1800 at 4; Ex. NET-1801).

from Opinion No. 531 and accept the recommendations of the CAPs, EMCOS, or Staff, and the consequence would be that investors would conclude that investment in electric transmission is not able to earn an ROE that is commensurate with its risks and uncertainties.³⁰⁷⁶ If such low ROEs were adopted, NETOs argue that they could be placed at a competitive disadvantage in the capital markets, and they could suffer adverse effects on their internal cash flows, financial strength, and credit ratings.³⁰⁷⁷

C. Findings and Conclusions

928. The undersigned agrees with Participants that the existing ROE is unjust and unreasonable. Therefore, the second step of the section 206 analysis is required. However, the rest of Participants' arguments are not well taken. The undersigned agrees with the NETOs that the base ROE should be set halfway between the midpoint and the upper end of the IBES-based DCF zone of reasonableness based on Dr. Avera's analysis.

929. The undersigned finds that the evidence shows that the same types of anomalous capital market conditions that existed in the Complaint I refund period³⁰⁷⁸ were also present in the Complaint II *and* Complaint III refund periods; those conditions resulted in distorting the inputs to the DCF model.³⁰⁷⁹ Alternative benchmark methodologies show that the midpoint of the DCF range of reasonableness would not be a just and reasonable base ROE for the NETOs.³⁰⁸⁰ Under these circumstances, a mechanical application of the DCF model will not satisfy regulatory standards and an upward adjustment from the midpoint of the zone of reasonableness is necessary in order to comply with the mandates of *Hope* and *Bluefield* and to establish a just and reasonable ROE.³⁰⁸¹

930. As explained above, Ex. NET-2004 displays the proper proxy group as derived from the properly run DCF methodology. Using that exhibit, the Top Quarter, which should set the NETOs' Base ROE, is 10.90 percent.

3.3.2. What limit, if any, should apply to the incentive ROEs?

A. Participants

931. CAPs state that the top of Dr. Woolridge's DCF range is 10.92%.³⁰⁸² Pursuant to

³⁰⁷⁶ *Id.* (citing Ex. NET-1300 at 68-69; Ex. NET-1400 at 51; Ex. NET-1500 at 16-19; Ex. NET-1600 at 43-44; Ex. NET-1800 at 9-10).

³⁰⁷⁷ *Id.* (citing Ex. NET-1400 at 36-37, 50-51; Ex. NET-1800 at 9-10).

³⁰⁷⁸ Docket No. EL11-66, Opinion No. 531.

³⁰⁷⁹ *See Id.* at 62.

³⁰⁸⁰ *Id.*

³⁰⁸¹ *Id.*

³⁰⁸² *See* CAPs IB at 60.

Opinion No. 531-B,³⁰⁸³ CAPs argue that the maximum ROE for any one project or other identifiable portion of NETOs' rate bases should likewise be 10.92%.

932. CAPs state that, in light of DCF extremes' unreliability, Dr. Woolridge also proposed an alternate approach that would set the Ceiling ROE at the higher of (a) 1.3 times the median of that period's DCF array, or (b) 275 bp above that median.³⁰⁸⁴ Under this alternative, CAPs assert that the Ceiling ROE would be 10.91%.

933. EMCOS assert that any incentive ROEs are capped by the top value of the zone of reasonableness.³⁰⁸⁵ Therefore, EMCOS contend that NETOs' incentive ROEs should be limited, on a project-by-project basis, to 11.16 percent.³⁰⁸⁶

934. Staff asserts that its DCF analyses demonstrate that the existing maximum ROE is excessive. Staff further asserts that the maximum ROE for transmission incentive projects should be the top of the zone of reasonableness.³⁰⁸⁷ Staff urges the Presiding Judge to adopt their recommended maximum ROE of 10.92 percent, the top of Ms. Joe's DCF I zone of reasonableness, (or alternatively, 11.15 percent, the top of her DCF II zone of reasonableness). Staff argues that the Presiding Judge should enforce the Commission's consumer protection mandate to limit the NETOs to their required rate of return on equity and reject tactics intended to maintain an excessive maximum ROE.³⁰⁸⁸

B. NETOs

935. NETOs contend that Participants have not met their burden of demonstrating that NETOs' existing ROE is unjust and unreasonable, and therefore the high end established in Docket No. ER04-157 (13.5%) should continue to apply. Alternatively, NETOs argue that the top end of the zone of reasonableness calculated through application of the DCF

³⁰⁸³ See Opinion No. 531-B, P 145, 150 FERC ¶ 61,165 (capping the total ROE for each transmission asset at the DCF range top).

³⁰⁸⁴ CAPs IB at 60 (citing Ex. CAP-1 at 75-77:8).

³⁰⁸⁵ EMCOS IB at 53 (citing *Pacific Gas & Electric Co.*, 141 FERC ¶ 61,168 at PP 4, 26 (2012) (holding that "any ROE adder is limited to within the range of reasonableness.")).

³⁰⁸⁶ *Id.* at 53-54 (citing Ex. EMC-13 at 2).

³⁰⁸⁷ Staff IB at 59 (citing Opinion No. 531, 147 FERC ¶ 61,234 at PP 161-165; Opinion No. 531-B, 150 FERC ¶ 61,165 at PP 139-146).

³⁰⁸⁸ *Id.* (citing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944) and *Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1 of Snohomish City, Wash.*, 554 U.S. 527, 564 (2008)).

method using IBES growth rates is 12.25%.³⁰⁸⁹

C. Findings and Conclusions

936. The undersigned disagrees with NETOs that the high end established in Docket No. ER04-157 (13.5%) should continue to apply. This case is separate and distinct from the time period that was under consideration in that case and involves different studies. Consistent with the undersigned's findings and conclusions noted earlier, for the Complaint III period the top of the zone of reasonableness calculated through the application of the DCF method using *Yahoo!*-sourced IBES growth rates is 12.19 percent.³⁰⁹⁰

IV. Summary Findings and Conclusions

937. For each of the periods at issue, the existing base ROEs are unjust and unreasonable, but they are enclosed in anomalous capital markets. Consistent with the findings in this Initial Decision, and in order to meet the just and reasonable standard set by the Commission, the undersigned finds that:

- for the refund period in Docket No. EL13-33-002, the base ROE should be 9.59 percent,³⁰⁹¹ and that the ceiling of ROE should be 10.42 percent;³⁰⁹²
- for the refund period in Docket No. EL14-86-000, the base ROE should be 10.90 percent,³⁰⁹³ and that the ceiling of the ROE should be 12.19 percent.³⁰⁹⁴

V. Order

938. The Omission from this Initial Decision of any argument or portion of the record raised by the participants in their briefs does not mean that it has not been considered. All such arguments have been evaluated and found to either lack merit or significance to the extent that their inclusion would only tend to lengthen this Initial Decision without altering its substance or effect.

³⁰⁸⁹ NETOs IB at 60 (citing Ex. NET-1700 at 7; Ex. NET-1703).

³⁰⁹⁰ Ex. NET-2004.

³⁰⁹¹ Section 2.1.2 (E), Findings and Conclusions, above.

³⁰⁹² Section 2.3.2.(E), Findings and Conclusions above.

³⁰⁹³ Section 3.3.1. (C), Findings and Conclusions, above.

³⁰⁹⁴ Section 3.3.2 (C), Findings and Conclusions, above.

939. IT IS ORDERED, subject to review by the Commission on exceptions or on its own motion, as provided by the Commission's Rules of Practice and Procedure, that within thirty (30) days of the issuance of the final order of the Commission in this proceeding, all parties shall take appropriate action to implement all the rulings in this decision.

Steven L. Sterner
Presiding Administrative Law Judge

Document Content(s)

EL13-33-002.DOCX.....1-371