

Endeavour Energy

Review of the AER's assessment of capex in
the 2014-2019 Draft Decision

January 2015



EY

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1. Executive summary

1.1 Background

The Australian Energy Regulator (AER) has recently released its Draft Decision on the 2014-2019 distribution revenue for Endeavour Energy.

Under the National Electricity Rules (NER), the AER must accept Endeavour Energy's forecast proposed capex if it is satisfied that it reasonably reflects the following (i.e. the capex criteria):

1. The efficient costs of achieving the capex objectives
2. The costs that a prudent operator would require to achieve the capex objectives
3. A realistic expectation of the demand forecast and cost inputs required to achieve the capex objectives.¹

In its draft decision, the AER was not satisfied that it reasonably reflected the capex criteria and it did not accept Endeavour's proposal, instead replacing Endeavour Energy's total proposed capex of \$1,746m with its alternative estimate of \$1,070m. This is shown in the following table.

Table 1: AER Draft Decision on Endeavour Energy's total capex in 2014-19

\$m, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour's proposal	432.9	361.1	314.3	325.7	312.0	1,746.0
AER draft decision	285.1	223.1	184.1	194.4	183.7	1,070.4
Difference	-147.8	-138.0	-130.2	-131.3	-128.3	-675.6
%	-34.1%	-38.2%	-41.4%	-40.3%	-41.1%	-38.7%

Source: AER Draft Decision²

1.2 Purpose of report

Endeavour Energy has requested EY to undertake a review of the AER's Consolidated Capex Forecast Model, to report our observations, and where possible, to reconcile Endeavour Energy's capex proposal with the AER's draft decision. Our brief does not require us to assess the veracity of the reductions imposed in the AER's decision nor provide any opinion on the AER's approach.

This report sets out our observations and the key findings from our review.

We understand that our report may be submitted by Endeavour Energy to the AER, along with its revised regulatory proposal to the AER.

1.3 Key findings

There appear to be a number of issues in relation to the AER's Draft Decision on Endeavour Energy's capex proposal. Overall, we were not able to fully reconcile the capex figures in the AER's Draft Determination with those in Endeavour Energy's regulatory proposal. We would require further guidance and clarification from the AER on its assessment process to fully reconcile how the AER arrived at its substituted capex forecast.

Assessment of replacement expenditure (repex)

The AER appears to have included \$281m of Endeavour's proposed capex balancing item to its assessment of repex. Specifically:

¹ Clause 6.5.7 of the National Electricity Rules

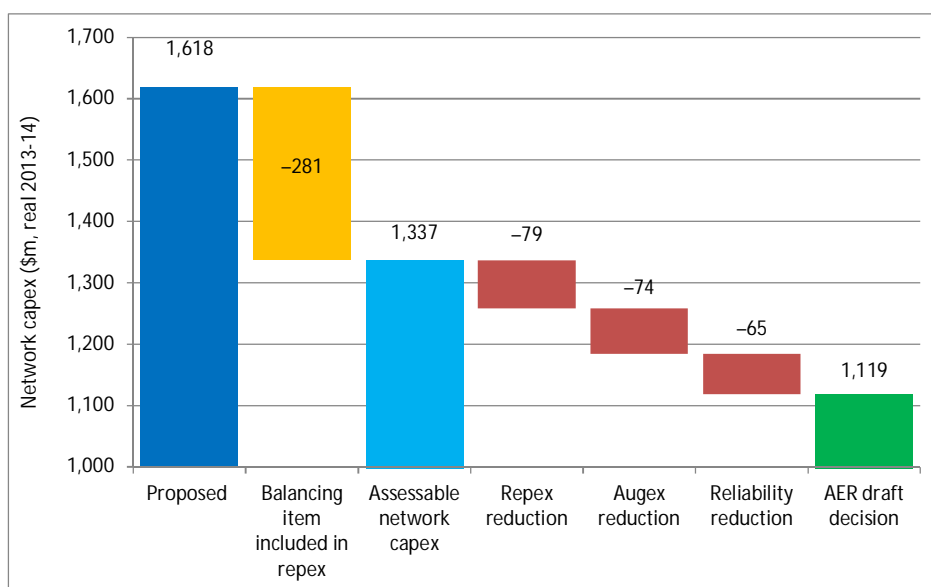
² Page 48, AER, Draft Decision Endeavour Energy distribution determination – Overview – November 2014

- As per the Draft Decision, the AER stated that Endeavour proposed forecast repex of \$739.7m in the 2014-19 period
- The AER's Draft Decision includes an allowance of \$661m for Endeavour's repex in 2014-19
- This differs from the AER's Consolidated Capex Forecast Model, which states that Endeavour proposed forecast repex of \$1,020.7m in the 2014-19 period
- In its assessment, the AER appears to have included \$281m from Endeavour's balancing item (i.e. comprised primarily of capital contributions and other capex items) in addition to Endeavour's proposed 2014-19 repex. However the AER has not included any of the \$281m of the balancing item in Endeavour's capex allowance
- As a result, the AER's decision on repex It would be worthwhile seeking clarification about whether the AER made its decision on repex by undertaking a 'top-down' assessment using Endeavour's forecast as a "starting point," or whether it developed a 'bottom-up' estimate of the required repex
- The AER included the allocation of the balancing items when it assessed Endeavour's proposed augmentation expenditure (augex) and connections capex.

In relation to Endeavour's network capex allowance, this suggests that:

- Of the \$1,618m of proposed network capex, the AER only assessed \$1,337m of network capex and included \$281m of the balancing item in repex
- However the AER did not appear to make any decision with respect to the \$281m balancing item
- The AER applied an "adjustment factor" to network capex of 69.1% across the 2014-19 period, i.e. reduced it from Endeavour's proposal of \$1,618m to \$1,119m in the Draft. This is a reduction of 30.9% or \$499m
- Of the \$499m reduction across the 2014-19 period:
 - The AER assessed and reduced network capex by \$218m from \$1,337m to \$1,119m
 - The remaining \$281m refers to Endeavour's balancing item
- In percentage terms, of the 30.9 percentage point reduction across the 2014-19 period:
 - The AER assessed and reduced network capex by 13.5 percentage points
 - The remaining 17.4 percentage points relate to Endeavour's balancing item.

Figure 1: AER's assessment of Endeavour's network capex proposal 2014-19 (\$m)



Source: EY analysis, based on AER Draft Decision

Treatment of capital contributions in augmentation expenditure (augex)

The AER appears to have reduced Endeavour Energy's capital contributions by \$14m in its assessment of augex, which is not consistent with its overall decision to approve all of Endeavour's proposed capital contributions.

- There are some areas of the AER's treatment of Endeavour Energy's proposed capital contributions which are unclear from the Draft Decision
- Section A.2.2. of the AER's Draft Decision accepted all of Endeavour Energy's proposed capital contributions of \$357m³
- However Endeavour Energy's augex in 2014-19 includes an amount for capital contributions (estimated to be \$94m on a pro rata basis), which the AER allocated from the 'balancing item' to augex
- In its assessment of augex, the AER chose to apply a 15% reduction to Endeavour Energy's augex (as opposed to a reduction in dollar terms)
- This means that the AER applied a 15% reduction to the \$94m of capital contributions (i.e. \$14m)
- It would be worthwhile seeking clarification about how the AER made its decision on augex and why it has appeared to apply a 15% reduction to Endeavour's augex capital contributions.

AER's calculation of the 12.99% overheads rate

The AER appears to underestimate the calculation of Endeavour's average capitalised overheads rate.

- The AER analysed Endeavour's historical data and calculated the actual overheads rate that Endeavour used in the 2009-14. The AER used this historical average rate as a proxy for the 2014-19 period and applied it equally across all capex categories
- The AER calculates Endeavour's actual overheads rate in 2009-14 as:
 - Total capitalised overheads, divided by
 - Total standard control gross capex (excluding overheads) – i.e. inclusive of non-network capex
 - This is equal to 12.99% for Endeavour in 2009-14
- However in 2014-19, the AER defines the overheads rate as Total capitalised overheads divided by total network capex only (i.e. exclusive of non-network capex)
- The net result is that the AER's calculation of the capitalised overheads rate of 12.99% is too low as it was calculated with reference to total capex rather than network capex
- This means that the AER appears to have underestimated Endeavour's capitalised overheads allowance in 2014-19.

In any event, Endeavour Energy should seek clarification from the AER about its approach to estimating capitalised overheads to determine whether it is consistent with Endeavour Energy's overheads policy and cost allocation methodology. These issues would include:

- Whether the AER's approach of using the actual overheads rate in 2009-14 as the basis for the forecast overheads rate in the 2014-19 period is appropriate, given the change in Endeavour's Cost Allocation Method (CAM) which was approved by the AER in September 2013

³ Section A.2.2, AER, Draft Decision: Endeavour Energy distribution determination 2015-16 to 2018-19 – Attachment 6: Capital expenditure, November 2014

- Whether the AER's decision to apply a single average percentage reduction in capitalized overheads across all categories of capex is appropriate given the method of allocating capitalised overheads in Endeavour's approved CAM (i.e. which are non-causally allocated using a proxy of the value of system capex directly attributed to standard control services)
- Whether the overheads rate should be calculated with reference to only system capex or to include non-system capex
- Whether the overheads rate should be applied to capital contributions
- The basis for the AER's approach to setting Endeavour's allowed capitalised overheads.

Other issues

- The AER has 'smeared' the impact of reductions in network capex and non-network capex on an average basis across all PTRM asset categories, regardless of the capex driver
- The Draft Decision did not provide an explanation of how the AER reduced Endeavour's non-network capex in each year of the 2014-19 regulatory period. The AER's Consolidated Capex Forecast model identifies a different percentage reduction (i.e. adjustment factor) for each regulatory year – however there does not appear to be any explanation of how these were derived.

Key comments

Endeavour Energy will need to explain to the AER how the \$357m of capital contributions and the balancing item more broadly is divided precisely between augex, Connections and repex. This should allow the AER to better explain its reductions to the balancing item and provide the rationale for doing so.

The AER has already requested that Endeavour Energy provide more information on this, and there is a possibility that the AER may re-assess Endeavour's capital contributions given the following statement:

"We accept Endeavour Energy's proposed capital contributions forecast of \$356.9m as we consider it is consistent with Endeavour Energy's forecast level of connection works which we are also accepting. We consider that capital contributions are mostly driven by connection and augmentation works, and in its revised proposal, we expect Endeavour Energy to clearly explain how capital contributions should be allocated to each service." (page 6-46 of Draft Decision – Attachment 6).

The following table shows a breakdown of the AER's draft decision on Endeavour Energy's capex proposal by capex driver.

Table 2: Breakdown of AER Draft Decision on Endeavour Energy's total capex in 2014-19

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposal (after-allocation of balancing item)						
Augmentation Expenditure	144,649	88,352	56,237	70,590	66,290	426,118
Connections	18,172	21,122	21,990	21,916	22,620	105,819
Replacement expenditure	210,640	218,938	204,407	199,467	187,271	1,020,723
Reliability improvement	13,600	12,300	12,900	13,100	13,500	65,400
Non-network	54,368	32,700	29,301	29,312	30,763	176,443
Capitalised overheads	62,890	59,113	60,816	62,667	62,969	308,456
Total gross capex	504,318	432,525	385,651	397,051	383,413	2,102,959
Capital contributions	71,378	71,378	71,378	71,378	71,378	356,891
Total net capex	432,940	361,147	314,273	325,673	312,035	1,746,067

AER Draft Decision						
Augmentation Expenditure	117,767	73,569	46,441	58,811	55,242	351,830
Connections	18,172	21,122	21,990	21,916	22,620	105,819
Replacement expenditure	136,425	141,800	132,389	129,189	121,290	661,092
Reliability improvement	0	0	0	0	0	0
Non-network	48,744	27,245	28,612	28,629	30,086	163,317
Capitalised overheads	35,374	30,715	26,082	27,263	25,865	145,299
Total gross capex	356,481	294,451	255,514	265,808	255,102	1,427,357
Capital contributions	71,378	71,378	71,378	71,378	71,378	356,891
Total net capex	285,103	223,073	184,136	194,429	183,724	1,070,466

Source: AER, Consolidated Capex Forecast Model

1.4 Scope of work

Endeavour Energy engaged EY to assist with a review of the AER's Consolidated Capex Forecast model to reconcile Endeavour's proposed capex and opex for 2014-19 with the AER's Draft Decision. This will involve:

- Identification of the breakdown of the capex proposals in Endeavour's Substantive Regulatory Proposal (SRP):
 - By capex driver in its Reset RIN
 - by PTRM asset category in the PTRM
- Description of the high-level process used by the AER to reduce Endeavour's capex proposals in making its Draft Decision, including identification of how the AER has determined its 'capex adjustment factors' and applied it to Endeavour's capex proposals in making its Draft Decision
- Reconciliation of the Capex allowances included in AER's Draft Decision with Endeavour's regulatory proposal
- Commentary on the reasonableness of the AER's approach in light of our review of the process above.

We did not assess the veracity of the reductions imposed in the AER's decision and our review only covered the manner in which they were applied by the AER.

This report brings together our findings.

1.5 Restrictions on the Report Use

The Report may only be relied upon by Endeavour Energy pursuant to the terms and conditions referred to in our agreement. Any commercial decisions taken by Endeavour Energy are not within the scope of our duty of care and in making such decisions you should take into account the limitations of the scope of our work and other factors, commercial or otherwise, of which you should be aware of from sources other than our work.

This report was prepared at the request of Endeavour Energy ("the client") solely for the purpose of providing advice to the client on the scope of work set out in section 1.2. In carrying out our work and preparing this report, we have worked on the instructions of Endeavour Energy and we have not taken into account the interests of any other parties. Ernst & Young does not extend any duty of care in respect of this report to anyone other than the client.

The services provided by Ernst & Young do not constitute an audit in accordance with generally accepted auditing standards, or a review, examination or other assurance engagement in accordance with auditing and assurance standards issued by the Australian Auditing and Assurance Standards Board. Accordingly, we do not provide an opinion or any other form of assurance under audit or assurance standards.

Basis of Our Work

Except to the extent that we have agreed to perform the specified scope of work, we have not verified the accuracy, reliability or completeness of the information we accessed, or have been provided with by the client, in preparing this report.

EY disclaims all liability to any party other than Endeavour Energy for all costs, loss, damage and liability that the third party may suffer or incur arising from or relating to or in any way connected with the provision of the deliverables to the third party without our prior written consent. If others choose to rely in any way on the Report they do so entirely at their own risk.

2. Endeavour Energy's capex proposal

2.1 Introduction

Endeavour Energy has provided information on its actual and proposed capex, including relevant underlying assumptions, for the 2014-2019 period in a number of documents including:

- Section 5 of its regulatory proposal
- Substantive Proposal, Post Tax Revenue Model (PTRM)
- Reset RIN Data. The information is contained in 3 supporting models:
 - Endeavour Energy – RIN.1 – NSW_ACT Electricity DNSPs reset RIN template – Consolidated Information (Public) (“RIN1”)
 - Endeavour Energy – RIN.2 – NSW_ACT electricity DNSPs reset RIN template – Actual Information (Public) (“RIN2”)
 - Endeavour Energy – RIN.3 – NSW_ACT Electricity DNSPs reset RIN template – Estimated Information (Public) – 2014 (“RIN3”).

It is important to note that the information presented in each document may differ due to certain line items being included or excluded. Where possible, we have highlighted the reasons for the differences in amounts presented in the various documents in the discussion below.

2.2 Regulatory proposal – Capex overview

2.2.1 Forecast capex, 2014-2019

Endeavour Energy has proposed approximately \$1.75 billion (in real \$2013-14) of capital expenditure over the 2014-2019 period.

Table 3: Regulatory Proposal, Forecast capex (\$m)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Growth	119.9	92.8	62.3	77.1	77.2	429.3
Asset renewal / replacement	208.2	197.8	178.8	175.9	162.2	922.8
Reliability and quality of service enhancement	13.6	12.3	12.9	13.1	13.5	65.3
Compliance	30.0	18.2	23.5	23.1	21.0	115.8
Other system assets	6.9	7.3	7.5	7.3	7.5	36.5
Total system	378.6	328.4	285.0	296.4	281.3	1,569.6
Non-system assets	54.4	32.7	29.3	29.3	30.8	176.4
Total capital expenditure	432.9	361.1	314.3	325.7	312.0	1,746.1

Source: Endeavour Energy, Regulatory Proposal 2014-2019, page 62

2.2.2 Actual / estimated capex, 2009-2013

The regulatory proposal does not contain detailed numbers on actual capex outcomes for the current regulatory period. However, it states that during the 2009-14 regulatory period, Endeavour Energy delivered capital investment totalling \$2,628 million (nominal), which is below its nominal allowance of \$2,973 million, with the majority of underinvestment occurring in 2009-10 and 2010-11.

2.3 PTRM

Table 4 and Table 5 below set out the information on forecast capex (gross and net) and capital contributions presented in Endeavour Energy's Substantive Proposal PTRM.

This information indicates that over the 2014-2019 regulatory control period, Endeavour Energy is forecasting gross capex of \$2,103.3m, capital contributions of \$356.9m and net capex of \$1,720.2m.

Table 4: PTRM, Forecast Gross Capex

Forecast Capital Expenditure – As Incurred (\$m Real 2013-14)					
Year	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-transmission lines and cables	74.71	64.00	32.52	33.83	26.12
Distribution lines and cables	148.01	140.25	147.24	154.85	153.07
Substations	165.51	128.09	113.26	113.69	107.49
Transformers	6.49	15.85	6.73	8.72	9.13
Low Voltage lines and cables	41.99	41.62	47.80	47.69	47.81
Customer metering and Load control	0.67	0.66	0.68	0.71	0.75
Communication	4.64	5.37	5.72	5.88	5.75
Land	5.61	1.63	0.09	0.09	0.22
Easements	0.42	0.42	0.42	0.42	0.42
Equity raising costs	0.31				
Emergency Spares (Major Plant, Excludes Inventory)	1.89	1.94	1.89	1.86	1.90
Customer Contributions	-	-	-	-	-
Information & Communication Technology	15.99	15.32	16.50	19.16	15.58
Furniture, fittings, plant and equipment	3.96	3.91	3.90	3.90	3.89
Motor Vehicles	5.19	4.68	5.07	3.04	8.11
Buildings	29.23	8.79	3.83	3.21	3.18
Land (non-system)	-	-	-	-	-
Other non system assets	-	-	-	-	-
0					
0					
Total	504.63	432.53	385.65	397.05	383.41

Source: Endeavour Energy, PTRM – Substantive Proposal – 2014.xls

Table 5: PTRM, capcons

Forecast Customer Contributions – As Incurred (\$m Real 2013-14)					
Year	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-transmission lines and cables	4.41	4.41	4.41	4.41	4.41
Distribution lines and cables	26.14	26.14	26.14	26.14	26.14
Substations	18.48	18.48	18.48	18.48	18.48
Transformers	1.28	1.28	1.28	1.28	1.28
Low Voltage lines and cables	20.34	20.34	20.34	20.34	20.34
Customer metering and Load control	0.21	0.21	0.21	0.21	0.21
Communication	0.01	0.01	0.01	0.01	0.01
Land	0.09	0.09	0.09	0.09	0.09
Easements	0.42	0.42	0.42	0.42	0.42
Equity raising costs	-	-	-	-	-
Emergency Spares (Major Plant, Excludes Inventory)	-	-	-	-	-
Customer Contributions	-	-	-	-	-
Information & Communication Technology	-	-	-	-	-
Furniture, fittings, plant and equipment	-	-	-	-	-
Motor Vehicles	-	-	-	-	-
Buildings	-	-	-	-	-
Land (non-system)	-	-	-	-	-
Other non system assets	-	-	-	-	-
0					
0					
Total	71.38	71.38	71.38	71.38	71.38

Source: Endeavour Energy, PTRM – Substantive Proposal – 2014.xls

Table 6: PTRM, Forecast Net Capex

Forecast Net Capital Expenditure – As Incurred (\$m Real 2013-14)					
Year	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-transmission lines and cables	69.31	58.60	27.12	28.43	20.73
Distribution lines and cables	121.86	114.10	121.09	128.70	126.92
Substations	146.85	109.43	94.60	95.02	88.82
Transformers	2.97	12.33	3.21	5.19	5.60
Low Voltage lines and cables	21.65	21.28	27.46	27.35	27.47
Customer metering and Load control	0.46	0.44	0.47	0.49	0.54
Communication	4.63	5.36	5.71	5.88	5.74
Land	5.02	1.05	0.49	0.49	0.37
Easements	0.41	0.41	0.41	0.41	0.41
Equity raising costs	0.31	-	-	-	-
Emergency Spares (Major Plant, Excludes Inventory)	1.89	1.94	1.89	1.86	1.90
Customer Contributions	-	-	-	-	-
Information & Communication Technology	15.99	15.32	16.50	19.16	15.58
Furniture, fittings, plant and equipment	3.96	3.91	3.90	3.90	3.89
Motor Vehicles	4.19	4.49	4.90	2.96	7.70
Buildings	29.23	8.13	3.83	3.21	3.18
Land (non-system)	-	1.98	-	-	-
Other non system assets	-	-	-	-	-
0	-	-	-	-	-
0	-	-	-	-	-
Total	427.92	353.98	309.77	321.26	307.28

Source: Endeavour Energy, PTRM – Substantive Proposal – 2014.xls

2.4 Reset RIN templates

2.4.1 Actual capital expenditure

Endeavour Energy provided the following information on its actual capex performance for the current regulatory period in RIN1.

Table 7: Endeavour Energy, Actual Capital Expenditure 2009-2013

\$m, real 2013-14	2009-10	2010-11	2011-12	2012-13	2013-14	Total
Augmentation expenditure	141,447	185,896	257,433	266,422	189,391	1,040,589
Connections	16,091	17,215	15,408	11,924	15,889	56,526
Replacement expenditure	104,042	115,132	157,946	158,979	208,392	744,490
Non-network	39,915	73,637	49,224	28,188	50,885	241,849
Capitalised network overheads	41,811	40,181	16,676	39,255	38,576	206,499
Capitalised corporate overheads	17,612	14,963	35,351	25,587	33,122	126,636
Balancing item	84,805	91,906	118,455	103,523	84,605	483,293
Total Gross Capex (including capcons)	445,724	538,929	680,492	633,877	620,859	2,919,881
Capcons	44,127	50,798	62,378	67,219	67,717	292,240

Source: Endeavour Energy, RIN.1 – NSW_ACT Electricity DNSPs reset RIN templates – Consolidated information (Public) – 2014.xlsx

2.4.2 Forecast capital expenditure

Forecast capital expenditure proposed by Endeavour Energy for the 2014-2019 regulatory control period is presented in RIN1.

Table 8: Forecast capital expenditure RIN1

\$m, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Augmentation expenditure	116,184	64,394	39,105	49,536	45,588	314,806
Connections	14,596	15,395	15,291	15,379	15,556	76,216
Replacement expenditure	169,187	159,571	142,136	139,974	128,787	739,656
Non-network	54,368	32,700	29,301	29,312	30,763	176,443
Capitalised network overheads	38,091	36,173	35,532	36,528	36,400	182,725

Capitalised corporate overheads	24,799	22,940	25,284	26,139	26,570	125,731
Balancing item	76,135	90,393	88,044	89,225	88,790	432,588
Total Gross Capex (including capcons)	493,360	421,566	374,692	386,092	372,454	2,048,165
Capcons	60,419	60,419	60,419	60,419	60,419	302,097

Source: Endeavour Energy, RIN.1 – NSW_ACT Electricity DNSPs reset RIN templates – Consolidated information (Public) – 2014.xlsx

In relation to the balancing item, Endeavour Energy's Reset RIN Basis of Preparation document states that⁴:

This includes expenditure associated with table 4.2 for "metering" which does not have its own discrete row in this table, capital contributions, infrastructure land purchases, system access/switching costs, essential spares, reliability capex, smart grid, power quality, environmental enhancement, asset relocations, direct capital overheads (not included in table 2.10 as these are not transferred from opex), a capitalised overhead adjustment and public lighting ... (page 8).

⁴ Page 8, Endeavour Energy, Rln.4 – Reset RIN Basis of Preparation (Public), 30 May 2014

3. AER assessment of capex

The AER's assessment of capex is contained in its Draft Decision as well as in various supporting models. We have relied principally on the analysis in the AER's Endeavour Energy 2014-Consolidated Capex Forecast Model – November 2014.

3.1 Overview of draft decision

The AER's draft decision is to allow forecast capex of \$1,070.4m over the 2014-2019 period. In its draft decision, the AER was not satisfied that Endeavour Energy's proposed capex of \$1,746.0m reasonably reflected the capex criteria. On this basis, the AER has adopted an alternative forecast capex of \$1,070.4m and replaced Endeavour Energy's total proposed capex of \$1,746m with its alternative estimate of \$1,070m.

Table 9: AER Draft Decision on Endeavour Energy's total capex in 2014-19

\$m, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour's proposal	432.9	361.1	314.3	325.7	312.0	1,746.0
AER draft decision	285.1	223.1	184.1	194.4	183.7	1,070.4
Difference	-147.8	-138.0	-130.2	-131.3	-128.3	-675.6
%	-34.1%	-38.2%	-41.4%	-40.3%	-41.1%	-38.7%

Source: AER Draft Decision⁵

3.2 AER's capex assessment process

The AER has taken the following approach in interpreting Endeavour Energy's capex proposal for 2014-19.

Phase 1 – AER's interpretation of Endeavour Energy's capex proposal

1. Determine proposed gross capex
2. Categorise total gross capex in 2014-19 by capex driver
3. Allocate the balancing item
4. Determine appropriate amount of capital contributions
5. Determine proposed net capex

Phase 2 – AER's assessment of Endeavour Energy's capex proposal by driver

1. Augex
2. Connections capex
3. Repex
4. Reliability capex
5. Non-network capex
6. Capitalised overheads

Phase 3 – AER's Draft Decision on capex by PTRM asset category

1. Network capex and non-network capex
2. Overheads

⁵ Page 48, AER, Draft Decision Endeavour Energy distribution determination – Overview – November 2014

3.3 Phase 1 – AER's interpretation of Endeavour Energy's capex proposal

3.3.1 Establishing proposed gross capex

The AER has taken Endeavour Energy's total gross capex in 2014-19 from Endeavour's PTRM. In doing so, it noted that there were some differences between the forecast gross capex in the Reset RIN (\$2,048.2m) and in the PTRM (\$1,746.1m).

Table 10: Endeavour Energy total gross capex in 2014-19

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
TOTAL GROSS CAPEX (includes capcons)	504,318	432,525	385,651	397,051	383,413	2,102,959

Source: Endeavour Energy PTRM

3.3.2 Categorise Endeavour's total gross capex in 2014-19 by capex driver

The AER has then sought to categorise Endeavour Energy's total gross capex in 2014-19 by capex driver.

The AER initially elected to disaggregate gross capex into 8 drivers:

1. Augmentation expenditure (augex)
2. Connections
3. Replacement expenditure (repex)
4. Reliability improvement
5. Non-network
6. Capitalised network overheads
7. Capitalised corporate overheads
8. Balancing item

The AER sourced the breakdown by capex driver from Endeavour's Reset RIN for 6 categories – augex, connections, repex, non-network, capitalised network overheads and capitalised corporate overheads.

Endeavour Energy's Reset RIN did not separately disclose capex relating to reliability improvement, but instead included \$65.4m of reliability improvement capex in the balancing item amount. The AER extracted this amount as a separate driver.⁶

This leaves one category to cover the residual amount, which is referred to as the 'balancing item'. This amounted to \$422m over 2014-19.

Table 11: Endeavour Energy total gross capex by driver in 2014-19 (pre allocation of balancing item)

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
TOTAL GROSS CAPEX (includes capcons)	504,318	432,525	385,651	397,051	383,413	2,102,959
Augmentation Expenditure	116,184	64,394	39,105	49,536	45,588	314,806
Connections	14,596	15,395	15,291	15,379	15,556	76,216
Replacement expenditure	169,187	159,571	142,136	139,974	128,787	739,656
Reliability improvement	13,600	12,300	12,900	13,100	13,500	65,400
Non-network	54,368	32,700	29,301	29,312	30,763	176,443
Capitalised network overheads	38,091	36,173	35,532	36,528	36,400	182,725

⁶ Page 6-11, AER, Draft Decision: Endeavour Energy distribution determination 2015-16 to 2018-19 – Attachment 6: Capital expenditure, November 2014

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Capitalised corporate overheads	24,799	22,940	25,284	26,139	26,570	125,731
balancing item	73,494	89,052	86,102	87,084	86,249	421,982

Source: AER, Consolidated Capex Forecast Model

In Endeavour Energy's Reset RIN, the 'balancing item' was a capex line item used to categorise all capex not yet grouped. This covered various items of capital expenditure, including capital contributions and reliability improvement expenditure.

3.3.3 Allocation of balancing item

To facilitate its assessment of each category of capex, the AER allocated the 'balancing item' of \$422m in 2014-19 to augex, connections capex and repex on a pro rata basis. Over 2014-19, this increased:

- Augmentation expenditure by \$111.3m
- Connections expenditure by \$29.6m
- Replacement expenditure by \$281.1m.

Table 12: Allocation of Endeavour Energy's balancing item to augex, Connections and repex in 2014-19

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Balancing item	73,494	89,052	86,102	87,084	86,249	421,982
<i>% allocation of balancing item based on pro rata</i>						
Augmentation Expenditure	39%	27%	20%	24%	24%	N/A
Connections	5%	6%	8%	8%	8%	N/A
Replacement expenditure	56%	67%	72%	68%	68%	N/A
<i>Additional \$ from allocation of balancing item</i>						
Augmentation Expenditure	28,466	23,957	17,132	21,054	20,702	111,311
Connections	3,576	5,728	6,699	6,537	7,064	29,603
Replacement expenditure	41,452	59,367	62,271	59,493	58,483	281,067

Source: EY analysis, based on the AER's Consolidated Capex Forecast Model

3.3.4 Determine appropriate amount of capital contributions

The AER noted that Endeavour Energy provided two different values for capital contributions in 2014-19:

- \$302m in the Reset RIN
- \$356m in the PTRM.

The AER has assumed the value of \$356m for Endeavour's capital contributions as set out in the PTRM.

Table 13: Endeavour Energy proposed capital contributions in 2014-19

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Capital contributions	71,378	71,378	71,378	71,378	71,378	356,891

Source: AER, Consolidated Capex Forecast Model

The Draft Decision states that the AER approves the entire proposed capital contributions amount.⁷

3.3.5 Determine proposed net capex

As a result, Endeavour's total gross and net capex in 2014-19 (post allocation of balancing item) is shown below.

Table 14: Endeavour Energy total gross and net capex by driver in 2014-19 (post allocation of balancing item)

\$000, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
TOTAL GROSS CAPEX (includes capcons)	504,318	432,525	385,651	397,051	383,413	2,102,959
Augmentation Expenditure	144,649	88,352	56,237	70,590	66,290	426,118
Connections	18,172	21,122	21,990	21,916	22,620	105,819
Replacement expenditure	210,640	218,938	204,407	199,467	187,271	1,020,723
Reliability improvement	13,600	12,300	12,900	13,100	13,500	65,400
Non-network	54,368	32,700	29,301	29,312	30,763	176,443
Capitalised network overheads	38,091	36,173	35,532	36,528	36,400	182,725
Capitalised corporate overheads	24,799	22,940	25,284	26,139	26,570	125,731
balancing item	-	-	-	-	-	-
Capital contributions	71,378	71,378	71,378	71,378	71,378	356,891
NET CAPEX (excludes capcons)	432,940	361,147	314,273	325,673	312,035	1,746,067

Note: Net capex is calculated as Gross capex less Capital contributions

Source: Source: AER, Consolidated Capex Forecast Model

Neither the Draft Decision nor the AER's Consolidated Capex Model provide any information on how capital contributions have been allocated between augex, repex and connections.

3.4 Phase 2 – AER's assessment of proposed capex

3.4.1 Augmentation expenditure (augex)

3.4.1.1 Background

In its Draft Decision, the AER assessed augex based on gross augex (i.e. including capital contributions), post allocation of the balancing item. This amount is \$426.1m.

In forming its view on the appropriate level of augex for Endeavour Energy, the AER's assessment involved a two-step process.

1. The AER disagreed with Endeavour Energy's assessment of the forecast demand for use of its HV feeders. The AER therefore reduced the "HV feeders component of Endeavour Energy's forecast augex" by 12.81%
2. The AER then relied on a Worley Parsons report to apply a "15% efficiency reduction" on Endeavour Energy's augex
 - a. According to WorleyParsons, it would be reasonable to "expect reductions in the order of 10 to 20%"⁸ in respect of Endeavour Energy's augmentation capex program. On this basis, the AER considered a 15% reduction to be reasonable.

⁷ Section A.2.2, AER, Draft Decision: Endeavour Energy distribution determination 2015-16 to 2018-19 – Attachment 6: Capital expenditure, November 2014

⁸ WorleyParsons, Review of proposed augmentation capex in NSW DNSP Regulatory Proposals 2014-19 – 17 November 2014

This is shown in the Table below.

Table 15: AER assessment of Endeavour Energy's augex in 2014-19 (\$m)

\$m, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour Energy proposed augex (including cap cons)	144.6	88.4	56.2	70.6	66.3	426.1
<i>Step 1 - AER reduced augex required for HV feeders by 12.8%</i>						
Adjustment in \$'000 (hard coded by AER)	-6.1	-1.8	-1.6	-1.4	-1.3	-12.2
AER augex - interim	138.5	86.5	54.7	69.2	65.0	413.9
<i>Step 2 - AER then reduced this augex by a further 15% for efficiency improvements</i>						
Adjustment (15% reduction of AER augex - interim)	-20.8	-13.0	-8.2	-10.4	-9.7	-62.1
AER augex	117.8	73.6	46.5	58.8	55.2	351.9
Total AER reduction (\$)	-26.9	-14.8	-9.8	-11.8	-11.1	-74.3
Total AER reduction (%)	-18.6%	-16.7%	-17.4%	-16.7%	-16.7%	

Source: EY analysis

3.4.1.2 Comments

In applying its 15% reduction of proposed gross augex (post allocation of the balancing item), the AER has also applied a 15% reduction to the capital contributions amount included in that capex line. As noted earlier, the amount of capital contributions included within gross augex is unclear. However, applying the 15% reduction to gross augex is inappropriate given that in relation to capital contributions, the AER's Draft Decision has accepted the proposed capital contributions amount of \$357m.

EY understands that the AER has requested that Endeavour Energy provide more information on the allocation of capital contributions between the various capex drivers. We consider that there is a risk that the additional information may lead to a re-assessment of Endeavour Energy's capital contributions given the AER's statement that:

"We accept Endeavour Energy's proposed capital contributions forecast of \$356.9m as we consider it is consistent with Endeavour Energy's forecast level of connection works which we are also accepting. We consider that capital contributions are mostly driven by connection and augmentation works, and in its revised proposal, we expect Endeavour Energy to clearly explain how capital contributions should be allocated to each service." (page 6-46).

3.4.1.3 Summary

Table 16: Summary of Endeavour's augex in 2014-19

Augex – SUMMARY (\$'000, real 2013-14)	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposal	144,649	88,352	56,237	70,590	66,290	426,118
AER draft decision	117,767	73,569	46,441	58,811	55,242	351,830
Difference	-26,882	-14,783	-9,796	-11,778	-11,049	-74,288

Source: AER, Consolidated Capex Forecast Model

3.4.2 Connections capex

3.4.2.1 Background

In its Draft Decision, the AER used the total connections capex (post allocation of the balancing item) as the "base number" to assess. That is, the AER assessed gross connections capex, which includes capital contributions.

The AER did not make any reduction to Endeavour's proposed Connections expenditure.

3.4.2.2 Comments

N/A

3.4.2.3 Summary

Table 17: Summary of Endeavour Energy's connections capex in 2014-19

Connections capex – SUMMARY (\$'000, real 2013-14)	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposal	18,172	21,122	21,990	21,916	22,620	105,819
AER draft decision	18,172	21,122	21,990	21,916	22,620	105,819
Difference	0	0	0	0	0	0

Source: AER, Consolidated Capex Forecast Model

3.4.3 Replacement expenditure (repex)

3.4.3.1 Background

In its Draft Decision, the AER's assessment of repex appears to have included allocation of \$281m of Endeavour's balancing item. This is not consistent with the approach the AER adopted to assess Endeavour Energy's augex and connections capex.

According to the AER's Draft Decision⁹, Endeavour Energy proposed \$740m of forecast repex in 2014-19 (excluding capitalised overheads).

However in Table 2.3 of its Consolidated Capex Forecast Model, the post-allocation amount of Endeavour's forecast repex in 2014-19 is \$1,021m.

Table 18: Allocation of balancing item to Endeavour's repex in 2014-19

Repex (\$'000, real 2013-14)	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Pre-allocation of balancing item	169,187	159,571	142,136	139,974	128,787	739,656
Post-allocation of balancing item	210,640	218,938	204,407	199,467	187,271	1,020,723
Allocation amount (\$)	-41,452	-59,367	-62,271	-59,493	-58,483	-281,067

Source: AER, Consolidated Capex Forecast Model

The AER's assessment of Endeavour Energy's proposed repex was comprised of two components:

1. Modelled repex – the AER undertook predictive modelling of the replacement of six asset groups.
 - a. Section 3.4.1 of the AER's Draft Decision Attachment 6 states that the AER considered that Endeavour Energy's proposal included \$515m of repex that was able to be modelled
2. Unmodelled repex – to account for replacement expenditure in asset groups that were not suitable for inclusion in the AER's model.

⁹ Page 6-47, AER, Draft Decision: Endeavour Energy distribution determination 2015-16 to 2018-19 – Attachment 6: Capital expenditure, November 2014

- a. Section A.3.4 of the AER's Draft Decision Attachment 6 states that the AER considered that Endeavour Energy's proposal included \$225m of "unmodelled repex".

This provides evidence that the AER consideration of Endeavour Energy's proposed repex used \$739.6m as the value to assess in 2014-19.

The AER included an alternative estimate of \$661m for repex, an amount which is 10.6% less than Endeavour energy's proposal.¹⁰ This was broken down into:

1. Modelled repex of \$519m
2. Unmodelled repex of \$142m

The AER's Draft Decision does not provide any breakdown of the AER's views on how the \$661m would be allocated during each year of the 2014-19 period.

Table 19: AER assessment of Endeavour's repex in 2014-19 (\$m)

\$m, real 2013-14	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposed augex (excluding cap cons and other items)	169.2	159.6	142.1	140.0	128.8	739.7
<i>The AER separates EE's repex into 2 categories (1) Repex that can be modelled, (2) Repex that is not modelled</i>						
Endeavour proposed repex						739.7
Proposed repex - modelled						514.0
Proposed repex - not modelled						225.0
<i>The AER's draft decision</i>						
AER repex						661.0
AER allowed repex - modelled						519.0
AER allowed repex - not modelled						142.0

Source: EY analysis

Overall, the AER reduced Endeavour Energy's total repex in 2014-19 by a total of \$79m or 10.6%.

However the Draft Decision is not consistent with the AER's Consolidated Capex Forecast model, which states that it reduced Endeavour Energy's proposed repex in 2014-19 by 35.23%. The value of 35.23% is hard coded as a "capex adjustment factor" and is the percentage difference between the AER's allowed repex of \$661m and Endeavour Energy's forecast repex (post-allocation of balancing item) of \$1,021m.

In its assessment of repex, the Draft Decision suggests that the AER included an additional \$281m from the balancing item. The balancing item is comprised primarily of capital contributions and other capex items.

However the AER has not included the \$281m of the balancing item in Endeavour's capex allowance. As the balancing item includes capital contributions, this does not appear to be consistent with the AER's overall decision to approve all of Endeavour's proposed capital contributions.

3.4.3.2 Summary

The differences between the AER's assessment of repex in the Draft Decision and the Consolidated Capex Forecast Model mean that there are two outcomes for repex each reflecting a different level of disallowance.

- The first scenario is based on a repex amount before the allocation of the balancing item (i.e. \$739.4m)
- The second scenario is based on a repex amount which includes allocation of the balancing item (i.e. \$1,020.7m)

¹⁰ Page 6-48, AER, Draft Decision: Endeavour Energy distribution determination 2015-16 to 2018-19 – Attachment 6: Capital expenditure, November 2014

Table 20: Summary of Endeavour's repex in 2014-19 – Draft Decision values (\$m)

Repex - SUMMARY (Draft Decision) (\$'000, real 2013-14)	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposal	169,187	159,571	142,136	139,974	128,787	739,656
AER draft decision	136,425	141,800	132,389	129,189	121,290	661,092
Difference	-32,762	-17,771	-9,747	-10,785	-7,498	-78,564

Source: AER, Consolidated Capex Forecast Model

Table 21: Summary of Endeavour's repex in 2014-19 – Consolidated Capex Model values (\$m)

Repex - SUMMARY (Capex Model) (\$'000, real 2013-14)	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposal	210,640	218,938	204,407	199,467	187,271	1,020,723
AER draft decision	136,425	141,800	132,389	129,189	121,290	661,092
Difference	-74,215	-77,138	-72,019	-70,278	-65,981	-359,631

Source: AER, Consolidated Capex Forecast Model

3.4.4 Reliability capex

3.4.4.1 Background

Endeavour Energy proposed reliability capex of \$65m in 2014-19. There was no allocation of the balancing item to reliability capex.

The AER did not accept any of this for a number of reasons, including the fact that Endeavour Energy did not demonstrate that this amount was proposed to address any compliance issues related to the Schedule 3 licence conditions.

The AER replaced Endeavour Energy's proposal with \$0m.

3.4.4.2 Comments

N/A

3.4.4.3 Summary

Table 22: Summary of Endeavour's Reliability capex in 2014-19

Reliability - SUMMARY	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour proposal	13,600	12,300	12,900	13,100	13,500	65,400
AER draft decision	0	0	0	0	0	0
Difference	-13,600	-12,300	-12,900	-13,100	-13,500	-65,400

Source: AER, Consolidated Capex Forecast Model

3.4.5 Non-network capex

3.4.5.1 Background

Endeavour Energy proposed non-network capex of \$176m in 2014-19. There was no allocation of the balancing item to non-network capex.

The AER did not accept Endeavour Energy's proposal for a number of reasons, primarily because the AER does not consider Endeavour Energy's costs reasonably reflect efficient costs that a prudent operator would require to meet the capex criteria.

The AER replaced Endeavour Energy's proposal with a total of \$163m across 2014-19.

3.4.5.2 Comments

The Draft Decision did not provide any details about how the AER has reduced non-network capex in each year of the regulatory period.

However the Consolidated Capex Forecast model included a different adjustment factor for each year during 2014-19.

The AER does not appear to explain how these values for each year were derived.

3.4.5.3 Summary

Table 23: Summary of Endeavour's Non-network capex in 2014-19 (\$m)

Non-network capex - SUMMARY	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour's proposal	54,368	32,700	29,301	29,312	30,763	176,443
AER draft decision	48,744	27,245	28,612	28,629	30,086	163,317
Difference	10.3%	16.7%	2.4%	2.3%	2.2%	-

Source: Tables 4.1, 4.2, AER's Consolidated Capex Forecast model for Endeavour Energy

3.4.6 Capitalised overheads

3.4.6.1 Background

Endeavour Energy proposed the following capitalised overheads in 2014-19 separated into Network overheads and Corporate overheads.

Table 24: Endeavour Energy's proposed capitalised overheads in 2014-19

(\$m, real 2013/14)	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Capitalised network overheads	38,091	36,173	35,532	36,528	36,400	182,725
Capitalised corporate overheads	24,799	22,940	25,284	26,139	26,570	125,731
Total capitalised overheads	62,890	59,113	60,816	62,667	62,969	308,456

Source: AER, Consolidated Capex Forecast Model

This can be expressed as an "overhead rate", which is calculated as total capitalised overheads as a percentage of total "network capex" (i.e. augex, connections, repex, reliability capex) after the allocation of the balancing item.

The following table shows Endeavour Energy's overhead rate implied in its proposal.

Table 25: Endeavour Energy's overheads rate in 2014-19 (%)

(\$m, real 2013/14)	2014/15	2015/16	2016/17	2017/18	2018/19
Total capitalised overheads	62,890	59,113	60,816	62,667	62,969
Total "network capex" post allocation of balancing item	387,061	340,713	295,534	305,072	289,680
Overheads rate (%)	16.2%	17.3%	20.6%	20.5%	21.7%

Source: AER, Consolidated Capex Forecast Model

The AER estimates the appropriate level of capitalised overheads to be the product of an overheads adjustment factor and the total network capex.

The AER's assessment of capitalised overheads therefore comprised two components: Endeavour Energy's Overheads rate (the AER refers to this as the 'overheads adjustment factor') and its "network capex".

- Assessment of the Overheads adjustment factor
 - The AER analysed Endeavour Energy's actual overhead rate for each year in the 2009-14 period (i.e. total capitalised overheads divided by standard control gross capex excluding overheads)
 - In 2009-14, the AER calculated that Endeavour Energy's actual overheads in the period represented 12.99% of total standard control gross capex. This is shown below.

Table 26: AER calculation of Endeavour Energy's overheads rate in historical 2004-09 period

Standard control capex	2009/10	2010/11	2011/12	2012/13	2013/14	Total
Capitalised network overheads	46,955	43,913	49,529	40,756	38,981	220,133
Capitalised corporate overheads	19,779	16,353	37,512	26,565	33,470	133,679
Total capitalised overheads	66,734	60,266	87,041	67,321	72,451	353,812
Standard Control Gross Capex (incl. capcons)	500,553	588,984	722,085	658,113	627,376	3,097,112
Standard Control Gross Capex excl. overheads	433,820	528,719	635,045	590,792	554,925	2,743,300
Standard Control Capex Overhead Rate	15.38%	11.40%	13.71%	11.40%	13.06%	12.99%

Source: EY analysis, based on the AER's Consolidated Capex Forecast Model

- The AER has then used this 12.99% average capitalised overhead rate as the rate to calculate capitalised overheads for Endeavour Energy in the 2009-14 period as the overhead adjustment factor for each year of the 2014-19 period (i.e. the AER would allow Endeavour Energy capitalised overheads equal to 12.99% multiplied by the total sum of augex, connections capex and repex)
- Assessment of total network capex
 - The AER's allowed augex, connections capex and repex in 2014-19 have been discussed in the above sections.

Based on the AER's allowed augex, connections capex and repex in 2014-19 discussed above, the following table shows the capitalised overheads allowance.

Table 27: AER's assessment of Endeavour Energy's overheads in 2014-19 (%)

	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Augmentation	117,767	73,569	46,441	58,811	55,242	351,830
Connections	18,172	21,122	21,990	21,916	22,620	105,819
Replacement	136,425	141,800	132,389	129,189	121,290	661,092
Total "Network capex"	272,364	236,491	200,820	209,916	199,151	1,118,741
AER overhead adjustment factor	12.99%	12.99%	12.99%	12.99%	12.99%	12.99%
AER allowed capitalised overheads	35,374	30,715	26,082	27,263	25,865	145,299

Source: EY analysis, based on the AER's Consolidated Capex Forecast Model

3.4.6.2 Comments

It is not clear whether the AER has calculated Endeavour Energy's average capitalised overheads rate in 2009-14 appropriately.

The AER calculated the average capitalised overheads rate in 2009-14 for Endeavour to be 12.99% by dividing:

- Total capitalised overheads by
- Total standard control gross capex (excluding overheads).

This appears to be inconsistent with the approach that the AER has used to calculate average capitalised overheads rate in 2014-19, which divided total capitalised overheads by total standard control network capex only (i.e. the AER omits non-network capex from this calculation).

This means that the AER is likely to have underestimated the 12.99% capitalised overheads rate to apply to Endeavour in 2014-19.

The AER then uses this 12.99% overheads rate to multiply by augex, connections capex and repex to estimate Endeavour's capitalised overheads allowance in 2014-19. This estimate of 12.99% is too low as it was calculated with reference to total capex rather than network capex.

This means that the AER is likely to have underestimated the Endeavour's capitalised overheads allowance in 2014-19.

3.4.6.3 Summary

Table 28: Summary of Endeavour's Capitalised overheads in 2014-19 (\$m)

Capitalised overheads - SUMMARY	2014/15	2015/16	2016/17	2017/18	2018/19	Total
Endeavour's proposal	62,890	59,113	60,816	62,667	62,969	308,456
AER draft decision	35,374	30,715	26,082	27,263	25,865	145,299
Difference	-27,516	-28,398	-34,734	-35,404	-37,104	-163,157

Source: AER, Consolidated Capex Forecast Model

3.5 Phase 3 – AER's draft decision on capex by PTRM asset category

Phase 3 involves the AER calculating the average percentage reduction in capex by PTRM asset category.

The AER initially excludes overheads (as these are added in separately) in two groups:

- Network capex – the sum of augex, Connections, Reliability and repex
- Non-network capex.

3.5.1 Network capex and non-network capex

The following table shows the average percentage reductions for network capex and non-network capex for each year during 2014-19.

Table 29: Summary of AER's adjustment factors for network capex and non-network capex

	2014/15	2015/16	2016/17	2017/18	2018/19
Network capex					
Endeavour proposal (\$000)	387,061	340,713	295,534	305,072	289,680
AER Draft Decision (\$000)	272,364	236,491	200,820	209,916	199,151
AER reduction (%)	-30%	-31%	-32%	-31%	-31%
Adjustment factor (%)	70%	69%	68%	69%	69%
Non-network capex					
Endeavour proposal (\$000)	54,368	32,700	29,301	29,312	30,763
AER Draft Decision (\$000)	48,744	27,245	28,612	28,629	30,086
AER reduction (%)	-10%	-17%	-2%	-2%	-2%
Adjustment factor (%)	90%	83%	98%	98%	98%

Source: EY analysis, based on the AER's Consolidated Capex Forecast Model

At the PTRM asset category level:

- The AER applies an average percentage reduction to each PTRM asset category classified as 'non-network capex' using the non-network capex adjustment factor in each year
- Similarly with all PTRM asset categories classified as 'network capex, the AER applies an average percentage reduction using the Network capex adjustment factor in each year. For network capex categories, the AER also adds an "Overheads factor" (i.e. overheads are added to the network capex PTRM asset categories) on the assumption that overheads are only applied to network or system capex.

That is, the AER applies the same percentage reduction in all Network capex PTRM asset categories and non-network capex PTRM asset categories, regardless of the capex driver (i.e. augex, repex, connections).

3.5.2 Overheads

The AER then escalates all network capex PTRM asset categories for its assumed overheads rate of 12.99%. That is, the reduction to capitalised overheads is applied equally to all categories of network capex and is not applied to any non-network capex asset categories.

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