

ATTACHMENT RIN1.01 – RESPONSE REFERENCE LIST

This reference list has been provided to comply with the following question of Schedule 1 of the RIN:

1.4: Provide material used for the purposes of preparing the regulatory proposal:

(c) a table that references each response to a paragraph in this Schedule 1 and where it is provided in or as part of the regulatory proposal.

Endeavour Energy's response to each question of Schedule 1 is provided in Attachment RIN0.09 (Endeavour Energy - RIN0.09 Schedule 1 Response - 30 April 2018 – Public). Where a response references a supporting document, the filename of the supporting document has been provided below. Where no reference has been provided below, our Schedule 1 answer is either: provided in full in Attachment RIN0.09 with no additional supporting document reference; or the Schedule 1 question is not applicable.

Schedule 1: Response Reference List

No.	Final RIN Content	Document Name
1. PROVIDE INFORMATION		
1.1	Provide the information required in each regulatory template in the Microsoft Excel Workbook 1 – Regulatory determination, Workbook 2 – New category analysis, Workbook 5 - EBSS and Workbook 6 - CESS attached at Appendix A, completed in accordance with: (a) this notice; (b) the instructions in the relevant Microsoft Excel Workbook attached at Appendix A; (c) the instructions in Appendix E; (d) the service classifications set out in the framework and approach paper; and (e) Endeavour Energy's cost allocation method.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public Endeavour Energy - RIN0.02 Final RIN Workbook 2 New CA - 30 April 2018 - Public Endeavour Energy - RIN0.03 Final RIN Workbook 5 EBSS - 30 April 2018 - Public Endeavour Energy - RIN0.04 Final RIN Workbook 6 CESS - 30 April 2018 - Public
1.2	If: (a) Endeavour Energy's cost allocation method has changed during the current regulatory control period, or (b) Endeavour Energy's service classifications have changed from the current regulatory control period, or (c) Endeavour Energy proposes to divert from the service classifications set out in the relevant framework and approach paper, or (d) Endeavour Energy proposes to change its cost allocation method for the forthcoming regulatory control period; such that there would be material changes to information previously submitted to the AER Endeavour Energy must use the regulatory templates in Workbook 3 – Recast category analysis and Workbook 4 – Recast economic benchmarking attached at Appendix A to submit revised historical information.	Endeavour Energy - 0.06 Cost Allocation Method - March 2018 - Public
1.3	For all information, other than forecast information, provide in accordance with this notice and the instructions in Appendix E, a basis of preparation demonstrating how Endeavour Energy has complied with this notice in respect of:	Endeavour Energy - RIN0.05 Basis of Preparation - 30 April 2018 – Public Endeavour Energy - RIN1.01 Response Reference List - April 2018 - Public

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	<p>(a) the information in each regulatory template in the Microsoft Excel Workbooks attached at Appendix A; and</p> <p>(b) any other information prepared in accordance with the requirements of this notice:</p> <ul style="list-style-type: none"> (i) paragraph 1.2 (ii) paragraph 5.1(a)(ii) (iii) paragraph 8.5 (iv) paragraph 13 (13.5 and 13.6) (v) paragraph 15 (15.2 and 15.3) (vi) paragraph 16 (16.2-16.7, 16.10) 	
1.4	<p>Provide material used for the purposes of preparing the regulatory proposal:</p> <ul style="list-style-type: none"> (a) all consultants' reports commissioned and relied upon in whole or in part; (b) all material assumptions relied upon; (c) a table that references each response to a paragraph in this Schedule 1 and where it is provided in or as part of the regulatory proposal; (d) a table that references each document provided in or as part of the regulatory proposal and its relationship to other documents provided; and (e) each document identified in paragraph 1.4(d) must be given a meaningful filename in the form: Endeavour Energy – [Author] – [title] – [date] – [public/confidential], where: <ul style="list-style-type: none"> (i) Author is the author of the file if not Endeavour Energy, for example a consultant or other third party; (ii) Title provides a meaningful description of the content of document, with limited reliance on acronyms or cross references, for example "Appendix 1A" is not meaningful, but "Appendix 1A – Cost allocation method" is; (iii) Date is a relevant date associated with the file, generally the date the document was created (iv) Public/confidential identifies if the file in its entirety can be published (public); or if it contains any information which is the subject of a claim for confidentiality in accordance with paragraph 33 of this notice (confidential). 	<p>Endeavour Energy - RIN1.02 Document Register - April 2018 - Public</p> <p>Endeavour Energy - RIN1.01 Response Reference List - April 2018 - Public</p>
1.5	<p>Provide for each material assumption identified in the response to paragraph 1.4(b):</p> <ul style="list-style-type: none"> (a) its source or basis; (b) if applicable, its quantum; (c) whether and how the assumption has been applied and was taken into account; and (d) the effect or impact of the assumption on the capital and operating expenditure forecasts in the forthcoming regulatory control period taking into account: <ul style="list-style-type: none"> (i) the actual expenditure incurred during the current regulatory control period; and (ii) the sensitivity of the forecast expenditure to the assumption. 	<p>Endeavour Energy - NSW Minister for Resources, Energy and Utilities - 10.08 Licence Conditions - June 2017 - Public</p> <p>Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public</p> <p>Endeavour Energy - 0.07 Expenditure Forecasting Methodology Statement - June 2017 - Public</p> <p>Endeavour Energy - Cutler Merz - 7.04 Review of Demand Forecasts and Basis for Spot Load Growth for 2019-2024 - April 2018 - Public</p> <p>Endeavour Energy - NIEIR - 7.02 Post Modelling Adjustments for Demand Forecasts - June 2016 - Public</p> <p>Endeavour Energy - NIEIR - 7.03 Economic Scenarios for the Endeavour Region 2017-2029 - September 2017 - Public</p> <p>Endeavour Energy - 7.01 2018-2027 Summer Demand Forecast - August 2017 - Public</p> <p>Endeavour Energy - RIN1.06 Branch Procedure NFB0010 Network Demand Forecasting - February 2016 - Public</p> <p>Endeavour Energy - 10.09 Growth Strategy - February 2018 - Public</p> <p>Endeavour Energy - 10.22 Augex Area Plans - April 2018 - Public</p>

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		<p>Endeavour Energy - 10.23 Augex Sample Business Cases FY19-24 - April 2018 - Public</p> <p>Endeavour Energy - 10.24 Augex Sample Business Cases FY14-19 - April 2018 - Public</p> <p>Endeavour Energy - BIS - 0.10 Real Cost Escalation Forecast - September 2017 - Public</p> <p>Endeavour Energy - 11.01 Opex Model - April 2018 - Public</p> <p>Endeavour Energy - 5.01 Customer and Stakeholder Engagement Activities and Findings - April 2018 - Public</p>
1.6	Provide reconciliation of the capital and operating expenditure forecasts provided in the regulatory templates to the proposed capital and operating allowances in the post tax revenue model for the forthcoming regulatory control period.	Endeavour Energy - 0.04 Post-Tax Revenue Model - April 2018 - Public
1.7	<p>Where the regulatory proposal varies or departs from the application of any component or parameter of the capital efficiency sharing scheme, efficiency benefit sharing scheme, demand management incentive scheme or service target performance incentive scheme as set out in the framework and approach paper, for each variation or departure explain:</p> <p>(a) the reasons for the variation or departure, including why it is appropriate;</p> <p>(b) how the variation or departure aligns with the objectives of the relevant scheme; and</p> <p>(c) how the proposed variation or departure will impact the operation of the relevant scheme.</p>	Endeavour Energy - 10.07 STPIS Proposal and Reliability Licence Conditions Compliance Capex Requirement - March 2018 - Public
2. CLASSIFICATION OF SERVICES		
2.1	<p>Identify each proposed service classification in the regulatory proposal which departs from a service classification set out in the framework and approach paper and explain:</p> <p>(a) the reasons for the departure, including why the proposed service classification is more appropriate; and</p> <p>(b) how service will differ under the proposed service classification in comparison to that in the framework and approach paper.</p>	
2.2	<p>If the proposed service classifications in the regulatory proposal depart from any of the service classifications set out in the framework and approach paper:</p> <p>(a) provide, in a second set of regulatory templates, all information required in each regulatory template in accordance with the instructions contained therein, modified as necessary, to incorporate the proposed service classifications; and</p> <p>(b) identify and explain where the regulatory templates differ.</p>	
3. CONTROL MECHANISMS		
3.1	<p>For the forecast revenues that Endeavour Energy proposes to recover from providing direct control services over the forthcoming regulatory control period provide:</p> <p>(a) formulaic expressions for the basis of control mechanisms for standard control services and for alternative control services; and</p> <p>(b) a detailed explanation and justification for each component that makes up the formulaic expression.</p>	

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3.2	<p>Also demonstrate:</p> <p>(a) how Endeavour Energy considers the control mechanisms are compliant with the framework and approach paper; and</p> <p>(b) for standard control services, how Endeavour Energy considers the control mechanisms are also compliant with clause 6.2.6 and Part C of Chapter 6 of the NER.</p>	
4. CAPITAL EXPENDITURE		
4.1	<p>Provide justification for Endeavour Energy's total forecast capex, including the following information:</p> <p>(a) why the total forecast capex is required for to achieve each of the objectives in clause 6.5.7(a) of the NER;</p> <p>(b) how Endeavour Energy's total forecast capex reasonably reflects each of the criteria in clause 6.5.7(c) of the NER;</p> <p>(c) how Endeavour Energy's total forecast capex accounts for the factors in clause 6.5.7(e) of the NER;</p> <p>(d) an explanation of how the plans, policies, procedures and regulatory obligations or requirements identified in Workbook 1 – regulatory determination, regulatory templates 7.1 and 7.3 have been used to develop forecast capex; and</p> <p>(e) an explanation of how each response provided to paragraph 4.1 (a) to (d) is reflected in any increase or decrease in expenditures or volumes, particularly between the current and forthcoming regulatory control periods, provided in Workbook 1 – regulatory determination, regulatory templates 2.1 to 2.11.</p>	<p>Endeavour Energy - 7.01 2018-2027 Summer Demand Forecast - August 2017 - Public</p> <p>Endeavour Energy - Cutler Merz - 7.04 Review of Demand Forecasts and Basis for Spot Load Growth for 2019-2024 - April 2018 - Public</p> <p>Endeavour Energy - RIN1.06 Branch Procedure NFB0010 Network Demand Forecasting - February 2016 - Public</p> <p>Endeavour Energy - RIN1.07 Branch Workplace Instruction WFB0001 Network Demand Forecasting - April 2016 - Public</p> <p>Endeavour Energy - 10.03 Capex Proposal (SAMP) - March 2018 - Public</p> <p>Endeavour Energy - 10.18 AER Augex Model - April 2018 - Public</p> <p>Endeavour Energy - Nuttall - 10.25 Assessing the Endeavour Energy Augex Forecast - February 2018 - Public</p> <p>Endeavour Energy - 10.26 Connections Capex Forecast - March 2018 - Public</p> <p>Endeavour Energy - RIN1.21 Long-Term Customer Numbers - December 2017 - Public</p> <p>Endeavour Energy - RIN1.22 Short-Term Customer Numbers - December 2017 - Public</p> <p>Endeavour Energy - 10.01 Network Strategy - April 2018 - Public</p> <p>Endeavour Energy - 10.02 Asset Management Strategy - April 2018 - Public</p> <p>Endeavour Energy - 10.04 Repex Proposal (SARP) - March 2018 - Public</p> <p>Endeavour Energy - 10.13 Company Policy 2.6 - Investment Governance Framework - April 2016 - Public</p> <p>Endeavour Energy - 10.14 Company Policy 9.2.1 Network Planning - May 2016 - Public</p> <p>Endeavour Energy - 0.07 Expenditure Forecasting Methodology Statement - June 2017 - Public</p> <p>Endeavour Energy - 10.17 AER Repex Model - April 2018 - Public</p> <p>Endeavour Energy - Nuttall - 10.21 Assessing Endeavour Energy's Replacement Forecast - February 2018 - Public</p> <p>Endeavour Energy - 10.07 STPIS Proposal and Reliability Licence Conditions Compliance Capex Requirement - March 2018 - Public</p> <p>Endeavour Energy - 10.11 Transmission Network Planning Review 2017-2026 - October 2017 - Public</p> <p>Endeavour Energy - 10.27 ICT Investment Plan - February 2018 - Public</p> <p>Endeavour Energy - 10.29 Fleet Capex Plan - March 2018 - Public</p>

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		<p>Endeavour Energy - 10.30 Buildings, Property and other Non-network Capex Plan - March 2018 - Public</p> <p>Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public</p>
4.2	<p>Provide the model(s) and methodology Endeavour Energy used to develop its total forecast capex, including:</p> <p>(a) A description of how Endeavour Energy prepared the forecast capex, including:</p> <p>(i) how its preparation differed or related to budgetary, planning and governance processes used in the normal operation of Endeavour Energy's business;</p> <p>(ii) the processes for ensuring amounts are free of error and other quality assurance steps; and</p> <p>(iii) if and how Endeavour Energy considered the resulting amounts, when translated into price impacts, were in the long term interest of consumers.</p> <p>(b) any source material used (including models, documentation or any other items containing quantitative data); and</p> <p>(c) calculations that demonstrate how data from the source material has been manipulated or transformed to generate data provided in the regulatory templates in Workbook 1 – regulatory determination.</p>	<p>Endeavour Energy - 0.07 Expenditure Forecasting Methodology Statement - June 2017 - Public</p> <p>Endeavour Energy - 10.03 Capex Proposal (SAMP) - March 2018 - Public</p> <p>Endeavour Energy - 10.16 Capex Listing (PIP) - April 2018 - Public</p>
4.3	<p>Identify which items of Endeavour Energy's forecast capex are:</p> <p>(a) derived directly from competitive tender processes;</p> <p>(b) based upon competitive tender processes for similar projects;</p> <p>(c) based upon estimates obtained from contractors or manufacturers;</p> <p>(d) based upon independent benchmarks;</p> <p>(e) based upon actual historical costs for similar projects; and</p> <p>(f) reflective of any amounts for risk, uncertainty or other unspecified contingency factors, and if so, how these amounts were calculated and deemed reasonable and prudent.</p>	<p>Endeavour Energy - 10.23 Augex Sample Business Cases FY19-24 - April 2018 - Public</p>
4.4	<p>Provide all documents which were materially relied upon and relate to the deliverability of forecast capex and explain the proposed deliverability.</p>	
4.5	<p>Describe each capex category and expenditures comprising these categories identified in the regulatory templates, including:</p> <p>(a) key drivers for expenditure;</p> <p>(b) an explanation of how expenditure is distinguished between:</p> <p>(i) greenfield driven and reinforcement driven augmentation capex;</p> <p>(ii) connections expenditure and augmentation capex;</p> <p>(iii) replacement capex driven by condition and asset replacements driven by other drivers (e.g. the need for greenfield or reinforcement driven augmentation capex); and</p> <p>(iv) any other capex category or opex category where Endeavour Energy considers that there is reasonable scope for ambiguity in categorisation.</p>	<p>Endeavour Energy - 10.03 Capex Proposal (SAMP) - March 2018 - Public</p> <p>Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public</p>
5. REPLACEMENT CAPITAL EXPENDITURE MODELLING		
5.1	<p>In relation to information provided in Workbook 1 – regulatory determination, regulatory template 2.2 and with respect to the AER's repex model, provide:</p> <p>(a) For individual asset categories in each asset group set out in the regulatory templates, provide in a separate document:</p>	<p>Endeavour Energy - RIN1.17 Replacement Capex Modelling - March 2018 - Public</p>

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	<p>(i) a description of the asset category, including:</p> <p>(A) the assets included and any boundary issues (i.e. with other asset categories);</p> <p>(B) an explanation of how these matters have been accounted for in determining quantities in the age profile;</p> <p>(C) an explanation of the main drivers for replacement (e.g. condition); and</p> <p>(D) an explanation of whether the replacement unit cost provides for a complete replacement of the asset, or some other activity, including an extension of the asset's life (e.g. pole staking) and whether the costs of this extension or other activity are capitalised or not.</p> <p>(ii) an estimate of the proportion of assets replaced for each year of the current regulatory control period, due to:</p> <p>(A) aging of existing assets (e.g. condition, obsolesce, etc.) that should be largely captured by this form of replacement modelling;</p> <p>(B) replacements due to other factors (and a description of those factors);</p> <p>(C) additional assets due to the augmentation, extension, development of the network; and</p> <p>(D) additional assets due to other factors (and a description of those factors).</p> <p>(b) For the previous, current and forthcoming regulatory control periods, explain the drivers or factors that have changed network replacement expenditure requirements. Identify and quantify the relative effect of individual matters within the following categories:</p> <p>(i) rules, codes, licence conditions, statutory requirements;</p> <p>(ii) internal planning and asset management approaches;</p> <p>(iii) measurable asset factors that affect the need for expenditure in this category (e.g. age profiles, risk profiles, condition trend, etc.). Identify and quantify individual factors;</p> <p>(iv) the external factors that can be forecast and the outcome measured (e.g. demand growth, customer numbers) that affect the need for expenditure in this category. Identify and quantify individual factors, covering the forecasts and the outcome (external factors to be discussed here do not relate to changing obligations which are covered in paragraphs 11.3 and 11.8);</p> <p>(v) technology/solutions to address needs, covering:</p> <p>(A) network; and</p> <p>(B) non-network.</p> <p>(vi) any other significant matters.</p> <p>(vii) Identify and provide information or documentation to justify and support any responses to paragraph 5.1(b) (i)-(vi).</p> <p>The information provided in response to paragraph 5.1 (b) above should at least distinguish between the asset categories listed in Workbook 1 – regulatory determination, regulatory template 2.2.</p>	
6. AUGMENTATION CAPITAL EXPENDITURE MODELLING		
6.1	Any instructions in this notice relating to the augex model must be read in conjunction with the augex model guidance document available on the AER's website (http://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/expenditure-forecast-assessment-guideline/final-decision).	
6.2	<p>In relation to information provided in Workbook 1 – regulatory determination, regulatory template 2.4 and with respect to the AER's augex model:</p> <p>(a) Separately for sub-transmission lines, sub-transmission and zone substations, HV feeders and distribution substations, Endeavour Energy must explain how it:</p>	<p>Endeavour Energy - RIN0.05 Basis of Preparation - 30 April 2018 - Public</p> <p>Endeavour Energy - 7.01 2018-2027 Summer Demand Forecast - August 2017 - Public</p>

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	<p>(i) Prepared the maximum demand data (weather corrected at 50 per cent probability of exceedance) provided in the asset status tables 2.4.1 to 2.4.4, including where relevant, explanations of each of:</p> <ul style="list-style-type: none"> (A) how this value relates to the maximum demand that would be used for normal planning purposes; (B) whether it is based upon a measured value, and if so, where the measurement point is and how abnormal operating conditions are allowed for; (C) whether it is based on estimated (rather than actual measured) demand, and if so, the basis of this estimation process and how it is validated; and (D) the relationship of the values provided to raw unadjusted maximum demand; and the relationship of the values provided to the values that could be expected from weather corrected maximum demand measures that reflect a 10 per cent probability of exceedance year. <p>(ii) Determined the rating data provided in the asset status tables 2.4.1 to 2.4.4, including where relevant:</p> <ul style="list-style-type: none"> (A) the basis of the calculation of the ratings in that segment, including asset data measured and assumptions made; and (B) the relationship of these ratings with Endeavour Energy's approach to operating and planning the network. For example, if alternative ratings are used to determine the augmentation timing, these should be defined and explained. <p>(iii) Determined the growth rate data provided in the asset status tables 2.4.1 to 2.4.4. This should clearly indicate how these rates have been derived from maximum demand forecasts or other load forecasts available to Endeavour Energy.</p> <p>(b) In relation to the capex-capacity table 2.4.6, Endeavour Energy must explain:</p> <ul style="list-style-type: none"> (i) the types of cost and activities covered. Clearly indicate what non-field analysis and management costs (i.e. direct overheads) are included in the capex and what proportion of capex these cost types represent; (ii) how it determined and allocated actual capex and capacity to each of the segment groups, covering: <ul style="list-style-type: none"> (A) the process used, including assumptions, to estimate and allocate expenditure where this has been required; and (B) the relationship of internal financial and/or project recording categories to the segment groups and process used. (iii) how it determined and allocated estimated/forecast capex and capacity to each of the segment groups, covering: <ul style="list-style-type: none"> (A) the relationship of this process to the current project and program plans; and (B) any other higher-level analysis and assumptions applied. <p>(c) Describe the projects and programs Endeavour Energy has allocated to the unmodelled augmentation categories in table 2.4.6, covering:</p> <ul style="list-style-type: none"> (i) the proportion of unmodelled augmentation capex due to this project or program type; (ii) the primary drivers of this capex, and whether in Endeavour Energy's view, there is any secondary relationship to maximum demand and/or utilisation of the Endeavour Energy network; and <p>(d) Separately for each network segment that Endeavour Energy defined in the model segment data table 2.4.5, whether the outcome of such a project or program, whether intended or not, should be an increase in the capability of the Endeavour Energy network to supply customer demand at similar service levels, or the improvement in service levels for a similar customer demand level:</p> <ul style="list-style-type: none"> (i) Describe the network segment, including: <ul style="list-style-type: none"> (A) the boundary with other connecting network segments; and (B) the main reasoning for the individual segment (e.g. as opposed to forming a more aggregate segment). (ii) Explain the utilisation threshold statistics provided (i.e. the mean and standard deviation), including: <ul style="list-style-type: none"> (A) the methodology, data sources and assumptions used to derive the parameters; (B) the relationship to internal or external planning criteria that define when an augmentation is required; (C) the relationship to actual historical utilisation at the time that augmentations occurred for that asset category; 	

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	<p>(D) Endeavour Energy's views on the most appropriate probability distribution to simulate the augmentation needs of that network segment; and</p> <p>(E) the process applied to verify that the parameters are a reasonable estimate of utilisation limit for the network segment.</p> <p>(iii) Regarding the augmentation unit cost and capacity factor provided, provide an explanation of each of:</p> <p>(A) the methodology, data sources and assumptions used to derive the parameters;</p> <p>(B) the relationship of the parameters to actual historical augmentation projects, including the capacity added through those projects and the cost of those projects;</p> <p>(C) the possibility of double-counting in the estimates, and processes applied to ensure that this is appropriately accounted for (e.g. where an individual project may add capacity to various segments); and</p> <p>(D) the process applied to verify that the parameters are a reasonable estimate for the network segment.</p> <p>(e) Explain the factors Endeavour Energy considers may result in different augmentation requirements for itself as compared to other NEM-based DNSPs. Endeavour Energy must account for the degree that different augmentation requirements are driven by differences in asset utilisation and maximum demand growth. Endeavour Energy must also explain all other factors, specific to its network, which would result in different augmentation requirements when compared to a DNSP with similar asset utilisation and maximum demand growth. The explanation must clearly indicate those factors that may impact:</p> <p>(i) the maximum achievable utilisation of assets for Endeavour Energy; and</p> <p>(ii) the likely augmentation project and/or cost.</p> <p>For each significant factor discussed, Endeavour Energy must indicate relevant model segments and estimate the impact these factors will have on its augmentation levels and associated capex compared to other DNSPs.</p>	
7. CONNECTIONS EXPENDITURE		
7.1	<p>Provide and describe the methodology and assumptions used to prepare the forecasts of connection works including:</p> <p>(a) Estimation of connection unit costs for each customer type; and</p> <p>(b) Connection volumes for each customer type.</p>	<p>Endeavour Energy - RIN0.05 Basis of Preparation - 30 April 2018 - Public</p> <p>Endeavour Energy - 10.26 Connections Capex Forecast - March 2018 - Public</p>
7.2	<p>Endeavour Energy must provide its estimation of customer contributions based upon the estimated life and revenue to be recovered from connection assets, including:</p> <p>(a) the expected life of the connection;</p> <p>(b) the average consumption expected by the customer over the life of the connection; and</p> <p>(c) any other factors that influence the expected recovery of the Endeavour Energy network use of system charge to customers.</p>	<p>Endeavour Energy - RIN1.03 Company Policy 9.2.8 Demand Management - August 2017 – Public</p> <p>Endeavour Energy - 10.12 Demand Management & Non-network Options Strategy - February 2018 - Public</p>
8. NON-NETWORK ALTERNATIVES		
8.1	<p>Identify the policies and strategies and procedures in the response to Workbook 1 – regulatory determination, regulatory template 7.1 which relate to the selection of efficient non-network solutions.</p>	

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8.2	Explain the extent to which the provision for efficient non-network alternatives has been considered in the development of the forecast capex proposal and the forecast opex proposal.	Endeavour Energy - 10.23 Augex Sample Business Cases FY19-24 - April 2018 - Public Endeavour Energy - 10.24 Augex Sample Business Cases FY14-19 - April 2018 - Public Endeavour Energy - 10.14 Company Policy 9.2.1 Network Planning - May 2016 - Public Endeavour Energy - RIN1.26 Company Procedure GAM0113 - Demand Mangement Program Development - April 2015 - Public
8.3	Identify each non-network alternative that Endeavour Energy has: (a) commenced during the current regulatory control period; and (b) selected to commence during, or will continue into, the forthcoming regulatory control period.	
8.4	For each non-network alternative identified in the response to paragraph 8.3, provide a description, including cost and location.	
8.5	Provide, for each year of the current regulatory control period, and for the forthcoming regulatory control period, details of each payment made, or expected to be made, by Endeavour Energy to an Embedded Generator in reflection any costs avoided by deferring augmentation of: (a) Endeavour Energy's distribution network; or (b) the relevant transmission network.	
9. FORECAST INPUT PRICE CHANGES		
9.1	Provide, in Workbook 1 – regulatory determination, regulatory template CPI series, the CPI series and index used by Endeavour Energy in its forecast capex proposal and the forecast opex proposal.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
9.2	Provide, in Workbook 1 – regulatory determination, regulatory template 2.14, the capex and opex price changes assumed by Endeavour Energy in its forecast capex proposal and the forecast opex proposal. All price changes must be expressed in percentage year on year real terms.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
9.3	Provide: (a) the model(s) used to derive and apply the materials price changes, including model(s) developed by a third party; (b) in relation to labour escalators, a copy of the current Enterprise Bargaining Agreement or equivalent agreement; and (c) documents supporting or relied upon that explain the change in the price of goods and services purchased by Endeavour Energy, including evidence that any materials price forecasting method explains the price of materials previously purchased by Endeavour Energy.	Endeavour Energy - RIN1.04 Certified Enterprise Bargaining Agreement - May 2013 - Public Endeavour Energy - RIN1.24 Contract Price Adjustments Schedule - September 2011 - Public Endeavour Energy - RIN1.23 Treasury Report - Contract Price Variations - February 2014 - Public

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9.4	<p>Provide also an explanation of :</p> <ul style="list-style-type: none"> (a) the methodology underlying the calculation of each price change, including: <ul style="list-style-type: none"> (i) sources; (ii) data conversions; (iii) the operation of any model(s) provided under paragraph 9.3(a); and (iv) the use of any assumptions such as lags or productivity gains; (b) whether the same price changes have been used in developing both the forecast capex proposal and forecast opex proposal; and (c) if the response to paragraph 9.4(b) is negative, why it is appropriate for different expenditure escalators to apply. 	Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public
9.5	If an agreement provided in response to paragraph 9.3(b) is due to expire during the forthcoming regulatory control period, explain the progress and outcomes of any negotiations to date to review and replace the current agreement.	Endeavour Energy - RIN1.04 Certified Enterprise Bargaining Agreement - May 2013 - Public
11. OPERATING AND MAINTENANCE EXPENDITURE		
10.1	<p>Provide:</p> <ul style="list-style-type: none"> (a) the model(s) and the methodology Endeavour Energy used to develop total forecast opex; (b) justification for Endeavour Energy's total forecast opex, including: <ul style="list-style-type: none"> (i) why the proposed total forecast opex is required for Endeavour Energy to achieve each of the objectives in clause 6.5.6(a) of the NER; (ii) how Endeavour Energy's total forecast opex reasonably reflects each of the criteria in clause 6.5.6(c) of the NER; and (iii) how Endeavour Energy's total forecast opex accounts for the factors in clause 6.5.6(e) of the NER; 	<p>Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public</p> <p>Endeavour Energy - 11.01 Opex Model - April 2018 - Public</p> <p>Endeavour Energy - 0.07 Expenditure Forecasting Methodology Statement - June 2017 - Public</p>
10.2	<p>Provide:</p> <ul style="list-style-type: none"> (a) the quantum of non-recurrent opex for each year of the forthcoming regulatory control period; and (b) an explanation of the driver of each non-recurrent opex; 	
10.3	<p>If Endeavour Energy used a revealed cost base year approach to develop its total forecast opex proposal, provide:</p> <ul style="list-style-type: none"> (a) in Microsoft Excel format, reconciliation (including all calculations and formulae) of Endeavour Energy's forecast total opex proposal to forecast standard control services opex and dual function assets opex by opex driver in Workbook 1 – Regulatory determination, regulatory template 2.16, tables 2.16.1 and 2.16.3; (b) the base year Endeavour Energy used; and (c) explanation and justification for why that base year represents efficient and recurrent costs; 	Endeavour Energy - 11.01 Opex Model - April 2018 - Public

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No.	Final RIN Content	Document Name
10.4	<p>If Endeavour Energy does not use a revealed cost base year approach to develop its total forecast provide:</p> <p>(a) forecast expenditure by opex category in Workbook 1 – Regulatory determination, regulatory template 2.16 for standard control services opex and dual function asset opex in tables 2.16.2 and 2.16.4;</p> <p>(b) in Microsoft Excel format, reconciliation (including all calculations and formulae) of Endeavour Energy's total forecast opex proposal to forecast standard control services opex and dual function assets opex by opex category in Workbook 1 – Regulatory determination, regulatory template 2.16, tables 2.16.2 and 2.16.4;</p> <p>(c) explanation of major drivers for the increases and decreases in expenditure by opex category in the forthcoming regulatory control period compared to actual historical expenditure;</p> <p>(d) explanation and justification for:</p> <p>(i) whether Endeavour Energy considers there is a year of historic opex that represents efficient and recurrent costs; or</p> <p>(ii) why Endeavour Energy considers no year of historic opex represents efficient and recurrent costs.</p>	
10.5	Provide the amount of total forecast opex attributable to output growth changes for standard control services opex and dual function assets opex in Workbook 1 – Regulatory determination, regulatory template 2.16, tables 2.16.1 and 2.16.3.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
10.6	<p>Provide:</p> <p>(a) the output growth drivers Endeavour Energy used to develop the amount of total forecast opex attributable to output growth changes;</p> <p>(b) any economies of scale factors applied to the growth drivers;</p> <p>(c) evidence that the growth drivers explain cost changes due to output growth; and</p> <p>(d) if Endeavour Energy applied any composite multiple output growth drivers:</p> <p>(i) the inputs for each composite multiple output growth driver; and</p> <p>(ii) the weightings for each input;</p>	Endeavour Energy - 11.01 Opex Model - April 2018 - Public
10.7	<p>Provide an explanation of how, in developing the amount of total forecast opex attributable to output growth changes, Endeavour Energy:</p> <p>(a) applied the output growth drivers; and</p> <p>(b) accounted for economies of scale.</p>	<p>Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public</p> <p>Endeavour Energy - 11.01 Opex Model - April 2018 - Public</p> <p>Endeavour Energy - RIN0.05 Basis of Preparation - 30 April 2018 - Public</p>
10.8	Provide the amount of total forecast opex attributable to changes in the price of labour and materials for standard control services opex and dual function assets opex in Workbook 1 – Regulatory determination, regulatory template 2.16, tables 2.16.1 and 2.16.3.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
10.9	<p>Provide an explanation of:</p> <p>(a) how, in developing the amount of total forecast opex attributable to changes in the price of labour and materials, Endeavour Energy applied the real price measures in Workbook 1 – Regulatory determination, regulatory template 2.14; and</p> <p>(b) whether Endeavour Energy's labour price measure compensates for any form of labour productivity change.</p>	<p>Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public</p> <p>Endeavour Energy - BIS - 0.10 Real Cost Escalation Forecast - September 2017 - Public</p> <p>Endeavour Energy - 11.01 Opex Model - April 2018 - Public</p> <p>Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public</p>
10.10	Provide the amount of total forecast opex attributable to changes in productivity for standard control services opex and dual	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 -

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	function assets opex in Workbook 1 – Regulatory determination, regulatory template 2.16, tables 2.16.1 and 2.16.3.	Public
10.11	Provide, in percentage year on year terms, the productivity measure that Endeavour Energy used to develop the amount of total forecast opex attributable to changes in productivity;	Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public
10.12	Provide an explanation of: (a) how, in developing the amount of total forecast opex attributable to changes in productivity, Endeavour Energy applied the productivity measure in paragraph 10.11; (b) whether Endeavour Energy's forecast productivity changes capture the historic trend of cost increases due to changes in regulatory obligations or requirements and industry best practice; and (c) whether Endeavour Energy's productivity measure includes productivity change compensated for by the labour price measure used by Endeavour Energy to forecast the change in the price of labour.	
10. STEP CHANGES		
11.1	Provide the amount of total forecast opex attributable to opex step changes for standard control services opex and dual function assets opex in Workbook 1 – Regulatory determination, regulatory template 2.16, tables 2.16.1 and 2.16.3.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
11.2	Provide an explanation of why Endeavour Energy considers: (a) the efficient costs of the step change are not provided by other components of Endeavour Energy's total forecast opex such as base opex, output growth changes, real price changes or productivity change; (b) the total forecast opex will not allow Endeavour Energy to achieve the objectives in clause 6.5.6(a) of the NER unless the step change is included; and (c) the total forecast opex will not reasonably reflect the criteria in clause 6.5.6(c) of the NER unless the step change is included.	
11.3	11.3 For all step changes in forecast expenditure provide: (a) In Workbook 1 – regulatory determination, regulatory template 2.17 the quantum of the step changes : (i) forecasts for each year of the forthcoming regulatory control period; and (ii) expected to be incurred, in the current regulatory control period; (b) a description of the step change.	
11.4	For each step change listed in response to paragraph 11.3, provide an explanation of: (a) when the change occurred, or is expected to occur; (b) what the driver of the step change is; (c) how the driver has changed or will change (for example, revised legislation may lead to a change in a regulatory obligation or requirement); and (d) whether the step change is recurrent in nature;	

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No.	Final RIN Content	Document Name
11.5	For each step change listed in response to paragraph 11.3, provide justification for when, and how, the step change affected, or is expected to affect: (a) the relevant opex category; (b) the relevant capex category; (c) total opex; and (d) total capex;	
11.6	For each step change listed in response to paragraph 11.3, provide the process undertaken by Endeavour Energy to identify and quantify the step change; provide cost benefit analysis that demonstrates Endeavour Energy proposes to address the step change in a prudent and efficient manner, including: (a) the timing of the step change; and (b) if Endeavour Energy considered a 'do nothing' option, evidence of how Endeavour Energy assessed the risks of this option compared with other options;	
11.7	For each step change listed in response to paragraph 11.3, where the step change is due to a change in a regulatory obligation or requirement provide: (a) relevant variations or exemptions granted to Endeavour Energy during the previous regulatory control period or the current regulatory control period; (b) any relevant compliance audits Endeavour Energy conducted during the previous regulatory control period or the current regulatory control period;	
11.8	For each step change listed in response to paragraph 11.7, provide, with reference to specific clauses of the relevant legislative instrument(s), the: (a) previous regulatory obligation or requirement; and (b) how the changed regulatory obligation or requirement is driving the step change.	
11.9	Provide the amount of total forecast opex attributable to category specific opex in Workbook 1 – Regulatory determination, regulatory template 2.17, table 2.17.5. The amount of total opex attributable to category specific opex must correspond with the category specific opex reported in Workbook 1 – Regulatory determination, regulatory template 2.16, table 2.16.1.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
12. ECONOMIC BENCHMARKING		
12.1	Complete the Workbook 1 – regulatory determination, regulatory templates 3.1 to 3.7 in accordance with: (a) the 'Economic Benchmarking RIN for distribution network service providers – Instructions and Definitions' issued to Endeavour Energy on 28 November 2013, chapters 2 to 9; (b) paragraphs 12.2 to 12.10.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public

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No.	Final RIN Content	Document Name
12.2	The forecast revenue groupings in Workbook 1 – Regulatory determination, regulatory templates 3.1, tables 3.1.1 and 3.1.2 may be developed by trending forward actual historical revenue groupings in previous regulatory years. However: (a) Total revenues must equal the total forecast revenues proposed by Endeavour Energy in its regulatory proposal, and (b) Revenue groupings must reflect Endeavour Energy's forecast demand for its services in the forthcoming regulatory control period in its regulatory proposal.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
12.3	Information provided in Workbook 1 – Regulatory determination, regulatory templates 3.2, tables 3.2.1 and 3.2.2 must reflect Endeavour Energy's cost allocation method.	Endeavour Energy - 0.06 Cost Allocation Method - March 2018 - Public
12.4	RAB asset financial data in the Workbook 1 – Regulatory determination, regulatory template 3.3 must reconcile to that in Endeavour Energy's regulatory proposal PTRM and RFM.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
12.5	The definition of a tree must be applied when completing the variables "Average number of trees per urban and CBD vegetation maintenance span" (DOEF0208) and "Average number of trees per rural vegetation maintenance span" (DOEF0209)	
12.6	In calculating responses to the variables DOEF0202 to DOEF0205, spans in the network service area where Endeavour Energy is not responsible for the vegetation management associated with the span are not to be counted.	
12.7	"Total number of spans" (DOEF0205) does not include service line spans.	
12.8	Endeavour Energy must report the route line length of feeders classified as either short rural or long rural divided by the total route feeder line length (this is the total feeder route line length for all CBD, urban, short rural and long rural feeders) against "Rural proportion" (DOEF0201).	
12.9	For the purposes of calculating the "Route line length" variable (DOEF0301) or other variables measured in terms of route line length: (a) the length of service lines are not to be counted (b) the length of a span that shares multiple voltage levels is only to be counted once (c) the lengths of two sets of lines that run on different sets of poles (or towers) but share the same easement are counted separately	
12.10	All forecast variables in the Workbook 1 – regulatory determination, regulatory templates 3.1 to 3.7 must align with those in Endeavour Energy's regulatory proposal. For the avoidance of doubt this includes forecast: (a) opex and capex; (b) maximum demand, customer numbers, energy delivery; (c) revenues; (d) quality of services variables including SAIDI and SAIFI; and (e) quantities of physical assets	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public

13. ALTERNATIVE CONTROL SERVICES

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No.	Final RIN Content	Document Name
13.1	The overheads relating to each alternative control service listed in paragraph 13.2 must be disclosed.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
13.2	Provide a list of all of the alternative control services that Endeavour Energy intends to provide to customers and levy charges for in the forthcoming regulatory control period.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
13.3	Provide a definition of each alternative control service listed in paragraphs 14, 15 and 16.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
13.4	For each alternative control service listed in paragraphs 14, 15 and 16, specify the charges applicable during each year of the current regulatory control period. Also include proposed charges for each year of the forthcoming regulatory control period.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
13.5	For each alternative control service listed in paragraphs 14, 15 and 16, specify the total revenue earned by Endeavour Energy in each year of the current regulatory control period and forecast to be earned in the forthcoming regulatory control period.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
13.6	For each alternative control service listed in paragraphs 14, 15 and 16, provide the labour rate(s) used to calculate the charges for the current and forthcoming regulatory control periods: (a) specify the labour classification level used to provide the services e.g. outsourced or internally provided and labourer type. (b) list all direct costs, and their quantum, in the make-up of the labour rate(s).	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
13.7	List each material category (e.g. meters, poles, brackets) required for the provision of each alternative control service listed in the response to paragraphs 14, 15 and 16. (a) provide a description of each material category. (b) provide the average unit costs for each material category. (c) list all direct costs included in the unit costs. (d) specify the calculation of the quantum of direct materials costs included in the unit cost of materials.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public

14. FEE BASED AND QUOTED ALTERNATIVE CONTROL SERVICES

Schedule 1: Response Reference List

No.	Final RIN Content	Document Name
14.1	Provide a description of each fee based and quoted service, explaining the purpose of the service and list the activities which comprise each service. The list of fee based and quoted services should be consistent with those services listed in Endeavour Energy's annual pricing proposals. (a) specify if the charges are for fee based and/or quoted alternative control services; (b) explain the reasons for the different charge with reference to the costs incurred; (c) explain the method used to set the different charge; and (d) provide the calculations underpinning the different charge.	Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
14.2	Identify the tasks involved in providing the service in Workbook 1 – regulatory determination, regulatory templates 4.3 and 4.4. (a) map the class of labour required to provide the service listed in regulatory templates 4.3 and 4.4. (b) the number of workers required to undertake the task and deliver the service. (c) the average time required to complete the task and deliver the service.	Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
14.3	If materials are required to provide the service, specify each material category.	Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
14.4	Provide all current and proposed charges for each fee based and quoted alternative control service in the current and forthcoming regulatory control periods.	Endeavour Energy - 14.10 ANS Pricing Models - April 2018 - Public
15. METERING ALTERNATIVE CONTROL SERVICES		
15.1	For metering alternative control services for the current regulatory control period and the forthcoming regulatory control period, provide details of the: (a) direct materials and direct labour costs; (b) installation costs; (c) meter purchase costs; (d) volumes of work; (e) other costs associated with providing metering services; (f) type of meters installed and forecast to be installed, separately for new meters and for replacement meters; (g) the volume of meters by type set out in (f) and the revenue earned and forecast to be earned by each meter type; and (h) the total operating and maintenance costs incurred, and forecast to be incurred, for metering services.	Endeavour Energy - Energeia - 14.02 Metering - Cost of Service Model - November 2017 - Public Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public

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No.	Final RIN Content	Document Name
15.2	For metering works, for each year of the current regulatory control period and forecasts for the forthcoming regulatory control period, provide a description of: (a) the type of work undertaken (e.g. meter reconfiguration, special meter read) including a description of the activities undertaken to provide the service; (b) the labour costs involved in providing the service, including any overheads; (c) any materials costs involved in providing the service; (d) the number (volume) of services provided and associated assumptions on which the volume of service was derived or estimated; (e) the charge per service; and (f) the revenue earned by each service.	Endeavour Energy - Energeia - 14.02 Metering - Cost of Service Model - November 2017 - Public Endeavour Energy - Energeia - 14.04 Metering - Volumes Model - November 2017 - Public Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Public
15.3	For metering alternative control services, specify the number of customers in each year of the current regulatory control period, and forecasts for the forthcoming regulatory control period.	Endeavour Energy - 14.06 Metering Pricing Model - November 2017 - Public
16. PUBLIC LIGHTING ALTERNATIVE CONTROL SERVICES		
16.1	Specify which items are capex and operational expenditure for each year of the current regulatory control period and forecasts for the forthcoming regulatory control period.	
16.2	Provide unit costs for the current regulatory control period and forecast for the forthcoming regulatory control period for: (a) luminaires; (b) dedicated street lighting poles; (c) brackets; (d) lamps; (e) photoelectric cells; (f) labour rate (per hour); (g) miscellaneous materials.	Endeavour Energy - RIN1.18 Item Usage & Forecast with Price - July 2017 - Public Endeavour Energy - RIN1.19 Labour Rates - July 2016 - Public
16.3	Provide the depreciation period in years for each type of luminaire.	
16.4	Provide the bulk change cycle in years for lamps and photoelectric cells.	
16.5	Provide details of the average replacement age of each type of luminaire.	
16.6	Provide the number of luminaires, by type.	Endeavour Energy - RIN1.20 Public Lighting Luminaires by Type - July 2017 - Public
16.7	Provide the number of luminaires, poles and brackets replaced per year, for the current and forthcoming regulatory control periods.	Endeavour Energy - RIN1.18 Item Usage & Forecast with Price - July 2017 - Public

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No.	Final RIN Content	Document Name
16.8	Provide details, including assumptions used, for any other costs that are incurred for the provision of public lighting services.	
16.9	Provide models and/or modelling that underpins proposed charges for the forthcoming regulatory control period and the reasons for the assumptions behind those forecasts.	Endeavour Energy - 14.09 Public Lighting Pricing Model - March 2018 - Public
16.10	For public lighting alternative control services, specify the number of customers in each year of the current regulatory control period, and forecasts for the forthcoming regulatory control period.	
17. DEMAND AND CONNECTION FORECASTS		
17.1	Provide and describe the methodology used to prepare the following forecasts for the forthcoming regulatory control period: (a) maximum demand; and (b) number of new connections.	Endeavour Energy - RIN1.06 Branch Procedure NFB0010 Network Demand Forecasting - February 2016 - Public Endeavour Energy - RIN1.07 Branch Workplace Instruction WFB0001 Network Demand Forecasting - April 2016 - Public Endeavour Energy - NIEIR - 7.03 Economic Scenarios for the Endeavour Region 2017-2029 - September 2017 - Public
17.2	Provide: (a) the model(s) Endeavour Energy used to forecast new connections and maximum demand; (b) where Endeavour Energy's approach to weather correction has changed, provide historically consistent weather corrected maximum demand data, as per the format in Workbook 1 – regulatory determination, regulatory templates 3.4 and 5.4 using Endeavour Energy's current approach. If any of this data is unavailable, explain why; (c) for new connections, volume expenditure data requested in Workbook 1 – regulatory determination, regulatory template 2.5; and (d) any supporting information or calculations that illustrate how information extracted from Endeavour Energy's forecasting model(s) reconciles to, and explains any differences from, information provided in Workbook 1 – regulatory determination, regulatory templates 2.5, 3.4 and 5.4.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Confidential Endeavour Energy - RIN0.05 Basis of Preparation - 30 April 2018 - Public Endeavour Energy - RIN1.21 Long-Term Customer Numbers - December 2017 - Confidential Endeavour Energy - RIN1.22 Short-Term Customer Numbers - December 2017 - Confidential

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No.	Final RIN Content	Document Name
17.3	<p>For each of the methodologies provided and described in response to paragraph 17.1, and, where relevant, data requested under paragraphs 17.2(b) and 7.2(c), explain or provide (as appropriate):</p> <ul style="list-style-type: none"> (a) the models used; (b) a global (top-down) and spatial (bottom-up) demand forecast; (c) the inputs and assumptions used in the models (including in relation to economic growth, connections numbers and policy changes and provide any associated models or data relevant to justifying these inputs and assumptions); (d) the weather correction methodology, how weather data has been used, and how Endeavour Energy's approach to weather correction has changed over time; (e) an outline of the treatment of block loads, transfers and switching within the forecasting process; (f) each appliance model used, where used, or assumptions relating to average customer energy usage (by customer type); (g) how the forecasting methodology used is consistent with, and takes into account, historical observations (where appropriate), including any calibration processes undertaken within the model (specifically whether the load forecast is matched against actual historical load on the system and substations); (h) how the resulting forecast data is consistent across forecasts provided for each network element identified in Workbook 1 – regulatory determination, regulatory template 5.4 and system wide forecasts; (i) how the forecasts resulting from these methods and assumptions have been used in determining the following: <ul style="list-style-type: none"> (i) capex forecasts; and (ii) operating and maintenance expenditure forecasts. (j) whether Endeavour Energy used the forecasting model(s) it used in the joint planning process for the purposes of its regulatory proposal; (k) whether Endeavour Energy's forecasts both coincident and non-coincident maximum demand at the feeder, connection point, sub-transmission substation and zone substation level, and how these forecasts reconcile with the system level forecasts (including how various assumptions that are allowed for at the system level relate to the network level forecasts); (l) whether Endeavour Energy records historic maximum demand in MW, MVA or both; (m) the probability of exceedance that Endeavour Energy uses in network planning; (n) the contingency planning process, in particular the process used to assess high system demand; (o) how risk is managed across the network, particularly in relation to load sharing across network elements and non-network solutions to peak demand events; (p) whether and how the maximum demand forecasts underlying the regulatory proposal reconcile with any demand information or related planning statements published by AEMO, as well as forecasts produced by any transmission network service providers connected to Endeavour Energy's network; (q) how the normal and emergency ratings are used in determining capacity for individual zone substations and sub-transmission lines; (r) where Endeavour Energy proposes to commence or continue a demand-related capex project or program during the forthcoming regulatory control period on a HV feeder: <ul style="list-style-type: none"> (i) for each feeder from the zone substation that is the connecting zone substation for the relevant HV feeder, and any other feeders that the relevant HV feeder can transfer load to or from: <ul style="list-style-type: none"> (A) assumed future load transfers between feeders; (B) assumed feeder underlying load growth rates (exclusive of transfers and specific customer developments); and (C) assumed block loads, and associated demand assumptions; (ii) existing embedded generation capacity, and associated assumptions on the impact on demand levels; (iii) assumed future embedded generation capacity, and associated assumptions on the impact on demand levels; (iv) existing non-network solutions, and the associated assumptions on the impact on demand levels; (v) assumed future non-network solutions, and associated assumptions on the impact on demand levels; and (vi) the diversity between feeders; 	<p>Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public</p> <p>Endeavour Energy - 7.01 2018-2027 Summer Demand Forecast - August 2017 - Public</p> <p>Endeavour Energy - NIEIR - 7.03 Economic Scenarios for the Endeavour Region 2017-2029 - September 2017 - Public</p> <p>Endeavour Energy - 10.03 Capex Proposal (SAMP) - March 2018 - Public</p> <p>Endeavour Energy - 10.05 Distribution Works Program - April 2018 - Public</p> <p>Endeavour Energy - 10.11 Transmission Network Planning Review 2017-2026 - October 2017 - Public</p> <p>Endeavour Energy - RIN0.05 Basis of Preparation - 30 April 2018 - Public</p> <p>Endeavour Energy - RIN1.27 Company Policy 9.2.10 - Network Asset Ratings - March 2018 - Public</p>

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No.	Final RIN Content	Document Name
	<p>(s) where Endeavour Energy proposes to commence or continue a demand-related capex project or program during the forthcoming regulatory control period on a zone substation (or relevant substations for a sub-transmission line):</p> <ul style="list-style-type: none"> (i) assumed future load transfers between related substations; (ii) assumed underlying load growth rates (exclusive of transfers and specific customer developments); (iii) assumed specific customer developments, and associated demand assumptions; (iv) existing embedded generation capacity, and associated assumptions on the impact on demand levels; (v) assumed future embedded generation capacity, and associated assumptions on the impact on demand levels; (vi) existing non-network solutions, and the associated assumptions on the impact on demand levels; (vii) assumed future non-network solutions, and associated assumptions on the impact on demand levels; and (viii) diversity with related substations. 	
17.4	<p>Provide:</p> <ul style="list-style-type: none"> (a) evidence that any independent verifier engaged by Endeavour Energy has examined the reasonableness of the method, processes and assumptions in determining the forecasts and has sufficiently capable expertise in undertaking a verification of forecasts; and (b) all documentation, analysis and models evidencing the results of the independent verification. 	Endeavour Energy - Cutler Merz - 7.04 Review of Demand Forecasts and Basis for Spot Load Growth for 2019-2024 - April 2018 - Public
18. EFFICIENCY BENEFIT SHARING SCHEME		
18.1	<p>For the purposes of applying the efficiency benefit sharing scheme:</p> <ul style="list-style-type: none"> (a) identify all cost categories proposed to be excluded from the operation of the efficiency benefit sharing scheme; (b) explain for each cost category identified in the response to paragraph 18.1(a) the reasons for the proposed exclusion. 	Endeavour Energy - RIN0.03 Final RIN Workbook 5 EBSS - 30 April 2018 - Public
19. SERVICE TARGET PERFORMANCE INCENTIVE SCHEME		
19.1	<p>Provide Endeavour Energy's detailed methodology for calculating the following parameters used in the STPIS;</p> <ul style="list-style-type: none"> (a) the SAIDI, SAIFI and MAIFI targets for each supply reliability area; (b) the customer service parameters and targets; (c) daily SAIDI, SAIFI and MAIFI and customer service performance derived from the individual interruption data under paragraph 19.3; (d) the MED threshold derived from the daily SAIDI data; (e) The incentive rates to apply to each supply reliability area. <p>Note: All calculations must be made in accordance with the STPIS and using data which complies with the STPIS definitions.</p>	Endeavour Energy - 10.07 STPIS Proposal and Reliability Licence Conditions Compliance Capex Requirement - March 2018 - Public

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No.	Final RIN Content	Document Name
19.2	If Endeavour Energy proposes adjustments to the STPIS targets away from those based upon raw historical data Endeavour Energy must provide, in respect of each adjustment: (a) the reasons for the adjustment; (b) the quantum of the adjustment, and the effect of the adjustment on the targets for each of the supply reliability areas; and (c) the method, basis and empirical data used as justification for the adjustment.	
19.3	Provide the data required in Workbook 1 – Regulatory determination, regulatory templates 6.1 and 6.2.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Confidential
20. PROPOSED CONTINGENT PROJECTS		
20.1	For each contingent project proposed in the regulatory proposal, provide: (a) a description of the proposed contingent project, including reasons why Endeavour Energy considers the project should be accepted as a contingent project for the forthcoming regulatory control period; (b) the proposed contingent capex which Endeavour Energy considers is reasonably required for the purpose of undertaking the proposed contingent project; (c) the methodology used for developing that forecast and the key assumptions that underlie it; (d) information that demonstrates that the undertaking of the proposed contingent project is reasonably required to meet one or more of the objectives referred to in clause 6.6A.1(b)(1) of the NER; (e) a demonstration that the proposed contingent capex for each proposed contingent project: (i) is not included (either in part or in whole) in Endeavour Energy's proposed total forecast capex for the forthcoming regulatory control period; (ii) reasonably reflects the capex criteria, taking into account the capex factors, in the context of the proposed contingent project; and (iii) exceeds either \$30 million (\$nominal) or 5 per cent of Endeavour Energy's proposed annual revenue requirement for the first year of the forthcoming regulatory control period, whichever is larger amount. (f) the proposed trigger events relating to the proposed contingent project.	Endeavour Energy - 10.16 Capex Listing (PIP) - April 2018 - Public Endeavour Energy - 10.32 Western Sydney Airport Growth Area - Contingent Project Business Case - April 2018 - Public Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public

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No.	Final RIN Content	Document Name
20.2	For each proposed trigger event relating to the proposed contingent project referred to in paragraph 20.1(f), demonstrate: (a) the proposed trigger event is reasonably specific and capable of objective verification; (b) the occurrence of the proposed trigger event makes the undertaking of the proposed contingent project reasonably necessary in order to achieve any of the capex objectives; (c) the proposed trigger event generates increased costs or categories of costs that relate to a specific location rather than a condition or event that affects the network as a whole; (d) the proposed trigger event is described in such terms that the occurrence of that event or condition is all that is required for the distribution determination to be amended under clause 6.6A.2 of the NER; (e) the proposed trigger event is a condition or event, the occurrence of which is probable during the forthcoming regulatory control period, but the inclusion of capex in relation to the proposed trigger event under clause 6.5.7 of the NER is not appropriate because: (i) it is not sufficiently certain that the event or condition will occur during the forthcoming regulatory control period or if it may occur after that regulatory control period or not at all; or (ii) the costs associated with the event or condition are not sufficiently certain.	Endeavour Energy - 10.32 Western Sydney Airport Growth Area - Contingent Project Business Case - April 2018 - Public
20.3	Provide a summary of Endeavour Energy's proposed contingent projects for the forthcoming regulatory control period, including the proposed contingent capex and trigger events for each proposed contingent project in the Workbook 1 – regulatory determination, regulatory template 7.2.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Confidential
21. REVENUES FOR STANDARD CONTROL SERVICES		
21.1	Provide Endeavour Energy's calculation of the unsmoothed and smoothed revenues for each year of the forthcoming regulatory control period using the AER's post-tax revenue model, which is to be submitted as part of Endeavour Energy's regulatory proposal.	Endeavour Energy - 0.04 Post-Tax Revenue Model - April 2018 - Public
21.2	Provide details of any departure from the AER's post-tax revenue model for the calculations referred to in paragraph 21.1 and the reasons for that departure.	
22. INDICATIVE IMPACT ON ANNUAL ELECTRICITY BILLS		
22.1	For the purposes of calculating the impact of Endeavour Energy's regulatory proposal on the annual electricity bill of typical residential and business customers in New South Wales, provide the data/information required in Workbook 1 – regulatory determination, regulatory template 7.6. Provide the data source for each input used for the calculation.	Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Confidential Endeavour Energy - RIN1.25 Indicative Bill Impact - Data Sources - April 2018 - Public
23. PROPOSED TARIFF STRUCTURE STATEMENT		
23.1	Provide the model(s) used to calculate the long run marginal cost estimates in Endeavour Energy's proposed tariff structure statement provided in accordance with the requirements of clauses 6.18.1A(a)(5) and 6.18.5(f) of the NER.	Endeavour Energy - TSS0.02 LRMC model - April 2018 - Public

Schedule 1: Response Reference List

No.	Final RIN Content	Document Name
23.2	Provide and describe the methodology and assumptions used to prepare the long run marginal cost estimates in paragraph 23.1.	Endeavour Energy - TSS0.01 Tariff Structure Statement - April 2018 - Public
23.3	Describe the relationship between the expenditure, demand and other inputs (as appropriate) used in the model provided under paragraph 23.1 and the expenditure, demand and other forecasts (as appropriate) provided as part of the building block proposal for the forthcoming regulatory control period.	Endeavour Energy - TSS0.02 LRM model - April 2018 - Public Endeavour Energy - RIN0.01 Final RIN Workbook 1 Reset - 30 April 2018 - Confidential
24. REGULATORY ASSET BASE		
24.1	Provide Endeavour Energy's calculation of the regulatory asset base for the relevant distribution system in respect of standard control services for each regulatory year of current regulatory control period using the AER's roll forward model, which is to be submitted as part of the regulatory proposal.	Endeavour Energy - 0.05 Roll Forward Model - April 2018 - Public
24.2	Provide details of each departure from the underlying methods in the AER's roll forward model for the calculation referred to in paragraph 24.1 and the reasons for that departure.	Endeavour Energy - 0.05 Roll Forward Model - April 2018 - Public
24.3	If the value of the regulatory asset base as at the start of the forthcoming regulatory control period is proposed to be adjusted because of changes to asset service classification, provide details including relevant supporting information used to calculate that adjustment value.	
24.4	Provide details of any departure in the allocation of actual capex, asset disposal and customer contribution values across asset classes in the roll forward model from those reported in the Annual Reporting RIN for the relevant regulatory years and the reasons for that departure.	
25. DEPRECIATION SCHEDULES		
25.1	Provide Endeavour Energy's calculation of the depreciation amounts for the relevant distribution system in respect of standard control services for each regulatory year of: (a) the current regulatory control period using the AER's roll forward model, which is to be submitted as part of the regulatory proposal (b) the forthcoming regulatory control period using the AER's post-tax revenue model, which is to be submitted as part of the regulatory proposal.	Endeavour Energy - 0.05 Roll Forward Model - April 2018 - Public
25.2	Provide details of any departure from the underlying methods in the AER's roll forward model and post-tax revenue model for the calculations referred to in paragraph 25.1 and the reasons for that departure.	Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public
25.3	Identify any changes to standard asset lives for existing asset classes from the previous determination. Explain the reason(s) for each change and provide supporting information.	
25.4	Identify any changes to new asset classes from the previous determination. Explain the reason(s) for using these new asset classes and provide supporting information on their proposed standard asset lives.	

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No.	Final RIN Content	Document Name
25.5	If any existing asset classes from the previous determination are proposed to be removed and their residual values to be reallocated to other asset classes, explain the reason(s) for the change and provide supporting information. This should include a demonstration of the materiality of the change on the forecast depreciation allowance.	
25.6	Describe the method used to depreciate existing asset classes as at 1 July 2019 (the start of the forthcoming regulatory control period) and provide supporting calculations, if the approach differs from that in the roll forward model.	Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public Endeavour Energy - 0.05 Roll Forward Model - April 2018 - Public
26. CORPORATE TAX ALLOWANCE		
26.1	Provide Endeavour Energy's calculation of the estimated cost of corporate income tax for the forthcoming regulatory control period using the AER's post-tax revenue model, which is to be submitted as part of the regulatory proposal.	Endeavour Energy - 0.04 Post-Tax Revenue Model - April 2018 - Public
26.2	Provide details of each departure from the AER's post-tax revenue model for the calculations referred to in paragraph 26.1 and the reasons for that departure.	
26.3	Identify each change to standard tax asset lives for existing asset classes from the previous determination. Explain the reason(s) for the change and provide relevant supporting information, including Federal tax laws governing depreciation for tax purposes.	
26.4	Describe the method used to depreciate existing asset classes as at 1 July 2019 (the start of the forthcoming regulatory control period) for tax purposes and provide supporting calculations, if the approach differs from that in the roll forward model.	Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public Endeavour Energy - 0.05 Roll Forward Model - April 2018 - Public
26.5	Provide Endeavour Energy's calculation of the tax asset base for the relevant system in respect of standard control services for each regulatory year of the current regulatory control period using the AER's roll forward model, which is to be submitted as part of the regulatory proposal.	Endeavour Energy - 0.05 Roll Forward Model - April 2018 - Public
26.6	Provide details of each departure from the underlying methods in the AER's roll forward model for the calculation referred to in paragraph 26.5 and the reasons for that departure.	
26.7	Identify each difference in the capitalisation of expenditure for regulatory accounting purposes and tax accounting purposes. Provide reasons and supporting calculations to reconcile any differences between the two forms of accounts.	
27. RELATED PARTY TRANSACTIONS		
27.1	Identify and describe all entities which: (a) are a related party to Endeavour Energy and contribute to the provision of distribution services; or (b) have the capacity to determine the outcome of decisions about Endeavour Energy's financial and operating policies.	
27.2	Provide a diagram of the organisational structure depicting the relationships between all the entities identified in the response to paragraph 27.1.	Endeavour Energy - RIN1.08 Group Structure - December 2017 - Public

Schedule 1: Response Reference List

No.	Final RIN Content	Document Name
27.3	Identify: (a) all arrangements or contracts between Endeavour Energy and any of the other entities identified in the response to paragraph 27.1 currently in place or expected to be in place during the period 2017-18 to 2023-24 which relate directly or indirectly to the provision of distribution services; and (b) the service or services that are the subject of each arrangement or contract.	
27.4	For each service identified in the response to paragraph 27.3(b): (a) provide: (i) a description of the process used to procure the service; and (ii) supporting documentation including, but not limited to, requests for tender, tender submissions, internal committee papers evaluating the tenders, contracts between Endeavour Energy and the relevant provider; (b) explain: (i) why that service is the subject of an arrangement or contract (i.e. why it is outsourced) instead of being undertaken by Endeavour Energy itself; (ii) whether the services procured were provided under a standalone contract or provided as part of a broader operational agreement (or similar); (iii) whether the services were procured on a genuinely competitive basis and if not, why; and (iv) whether the service (or any component thereof) was further outsourced to another provider.	
28. VEGETATION MANAGEMENT COMPLIANCE		
28.1	Provide compliance audits of vegetation management work conducted by Endeavour Energy during the current regulatory control period.	Endeavour Energy - RIN1.10 Audit Report - Vegetation Management - June 2009 - Confidential Endeavour Energy - RIN1.11 Audit Report - Vegetation Management - September 2010 - Public Endeavour Energy - RIN1.12 Audit Report - Vegetation Management Follow Up Review - June 2012 - Public Endeavour Energy - RIN1.13 Audit Report - Vegetation Management - June 2014 - Public Endeavour Energy - RIN1.14 Review of Vegetation Management Sourcing Project P1 - October 2014 - Public Endeavour Energy - RIN1.15 Review of Vegetation Management Sourcing Project P2 - June 2015 - Public Endeavour Energy - RIN1.16 Audit Report - Vegetation Management - June 2016 - Public
29. CORPORATE STRUCTURE		

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No.	Final RIN Content	Document Name
29.1	Provide charts that set out: (a) the group corporate structure of which Endeavour Energy is a part; and (b) the organisational structure of Endeavour Energy.	Endeavour Energy - RIN1.08 Group Structure - December 2017 - Public Endeavour Energy - RIN1.09 Organisational Structure - December 2017 - Public
30. FORECAST MAP OF DISTRIBUTION SYSTEM		
30.1	Provide a forecast map of Endeavour Energy's distribution system for the forthcoming regulatory control period. This map, together with any appropriate accompanying notes, should also indicate the location of new major network assets proposed to be constructed over the forthcoming regulatory control period.	Endeavour Energy - 0.01 Regulatory Proposal - April 2018 - Public Endeavour Energy - 10.06 2017 Distribution Annual Planning Report - December 2017 - Public Endeavour Energy - 10.22 Augex Area Plans - April 2018 - Public
31. TRANSITIONAL ISSUES		
31.1	Provide information on transitional issues (expressly identified in the NER or otherwise) which Endeavour Energy expects will have a material impact on it and should be considered by the AER in making its distribution determination. For each issue, set out the following information: (a) the transitional issue; (b) what has caused the transitional issue; (c) how the transitional issue impacts on Endeavour Energy; and (d) how Endeavour Energy considers the transitional issue could be addressed.	
32. AUDIT AND REVIEW REPORTS		
32.1	Provide the audit report and review reports as applicable, prepared in accordance with the requirements set out in Appendix C.	Endeavour Energy - RIN0.07 EY - Audit Report Historical - 30 April 2018 - Public
32.2	Provide all reports from the auditor to Endeavour Energy's management regarding the audit review and/or auditors' opinions or assessment.	Endeavour Energy - RIN0.07 EY - Audit Report Historical - 30 April 2018 - Public
33. CONFIDENTIAL INFORMATION		
33.1	This clause applies to any information Endeavour Energy provides: (a) in response to Schedule 1; (b) in a regulatory proposal for the forthcoming regulatory control period (a Proposal) (c) in a revision or amendment to a Proposal; and (d) in a submission Endeavour Energy makes regarding a Proposal or a revised or amended Proposal; (together, Endeavour Energy's Information).	
33.2	If Endeavour Energy wishes to make a claim for confidentiality over any of Endeavour Energy's Information, provide the details of that claim in accordance with the requirements of the AER's Confidentiality Guideline, as if it extended and applied to that claim for confidentiality.	Endeavour Energy - 0.03 Confidentiality Claim - April 2018 - Public

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No.	Final RIN Content	Document Name
33.3	Provide any details of a claim for confidentiality in response to paragraph 32.2 at the same time as making the claim for confidentiality.	Endeavour Energy - 0.03 Confidentiality Claim - April 2018 - Public
34. COMPLIANCE WITH SECTION 71YA OF THE NEL		
34.1	<p>Provide a statement attesting that:</p> <p>(a) Where any expenditure or cost has been incurred or is forecast to be incurred by Endeavour Energy, as a result of or incidental to a review under Division 3A – Merits review and other non-judicial review – of the NEL:</p> <p>(i) Endeavour Energy has not included any of that expenditure or cost, or any part of that expenditure or cost, in its reported capital or operating expenditures for a network revenue or pricing determination; and</p> <p>(ii) Endeavour Energy has not recovered any of that expenditure or cost, or any part of that expenditure or cost, from end users; and</p> <p>(iii) Endeavour Energy has not sought to pass through any of that expenditure or cost, or any part of that expenditure or cost, to end users; or</p> <p>(b) Where no expenditure or cost has been incurred or is forecast to be incurred by Endeavour Energy, as a result of or incidental to a review under Division 3A – Merits review and other non-judicial review – of the NEL:</p> <p>(i) No such expenditure or cost has been incurred or is forecast to be incurred.</p>	
35. IDENTIFICATION OF CERTAIN COSTS IN ACTUAL CAPITAL AND OPERATING EXPENDITURE		
35.1	For any actual capex or opex reported in response to this notice, identify any part of that expenditure which can be attributed to any expenditure or cost that Endeavour Energy has incurred as a result of, or incidental to, a review under Division 3A – Merits review and other non-judicial review – of the NEL.	Endeavour Energy - RIN0.03 Final RIN Workbook 5 EBSS - 30 April 2018 - Public