FINAL DECISION
ElectraNet transmission determination
2018 to 2023

Attachment 6 – Capital expenditure

April 2018

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on ElectraNet's transmission determination for 2018–23. It should be read with all other parts of the final decision.

The final decision includes the following documents:

Overview

ElectraNet transmission determination 2018–23

Attachment 1 – Maximum allowed revenue

Attachment 2 – Regulatory asset base

Attachment 5 – Regulatory depreciation

Attachment 6 – Capital expenditure

Attachment 8 – Corporate income tax

Attachment A – Negotiating framework

Attachment B – Pricing methodology

Contents

Shortened forms

Shortened form	Extended form
AARR	aggregate annual revenue requirement
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASRR	annual service revenue requirement
augex	augmentation expenditure
capex	capital expenditure
CCP	Consumer Challenge Panel
CESS	capital expenditure sharing scheme
CPI	consumer price index
DMIA	demand management innovation allowance
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ERP	equity risk premium
MAR	maximum allowed revenue
MRP	market risk premium
NEL	national electricity law
NEM	national electricity market
NEO	national electricity objective
NER	national electricity rules
NSP	network service provider
NTSC	negotiated transmission service criteria
opex	operating expenditure
PPI	partial performance indicators
PTRM	post-tax revenue model
RAB	regulatory asset base
RBA	Reserve Bank of Australia
repex	replacement expenditure
RFM	roll forward model
RIN	regulatory information notice

Shortened form	Extended form
RPP	revenue and pricing principles
SLCAPM	Sharpe-Lintner capital asset pricing model
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
TUoS	transmission use of system
WACC	weighted average cost of capital

6 Capital expenditure

Capital expenditure (capex) refers to the capital expenses incurred in the provision of prescribed transmission services. The return on and of forecast capex are two of the building blocks that form part of ElectraNet's total revenue requirement.[1]

6.1 Final decision

We are satisfied that ElectraNet's proposed total forecast capex, adjusted for our updated forecasts of labour cost growth, of $460.2 million ($2017–18) for the 2018–23 regulatory control period reasonably reflects the capex criteria. This maintains our position from the draft decision. Our reasons for this are set out in attachment 6 to the draft decision, and section 6.4 below.

In relation to ElectraNet's proposed contingent projects, we consider that these projects should be classified as contingent projects for the 2018–23 regulatory control period. However, we do not accept all aspects of ElectraNet's revised proposed trigger events for some projects. We consider that the trigger events set out in our final decision will provide for contingent project trigger events which are reasonably specific and objectively verifiable.[2]

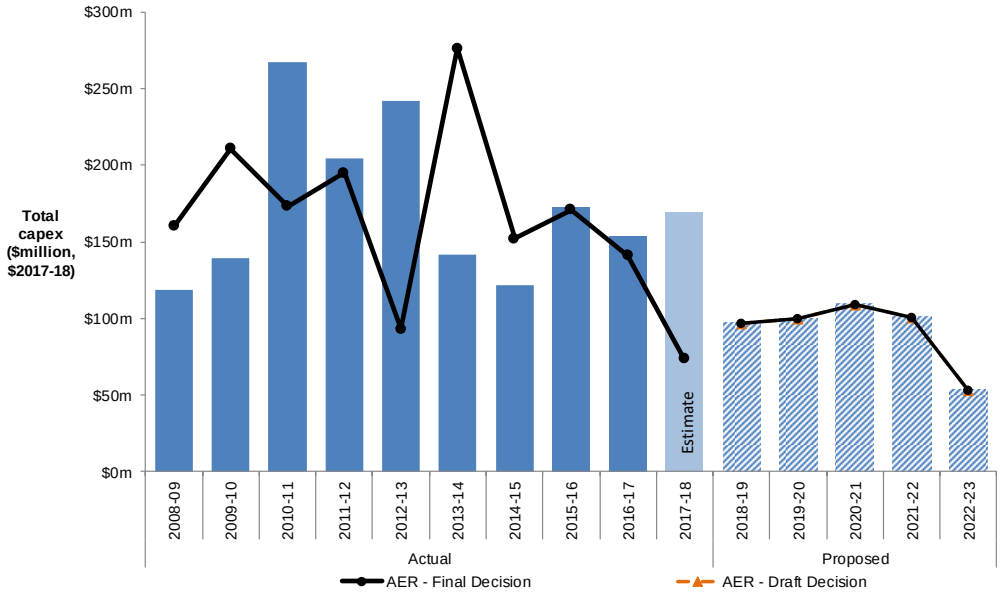
6.2 ElectraNet's revised proposal

In its revised proposal, ElectraNet proposed total forecast capex of $461.5 million ($2017–18) for the 2018–23 regulatory control period.[3] This is slightly higher than our draft decision on total forecast capex of $459.1 million.[4]

Figure 6.1 shows ElectraNet's revised proposal and our draft and final decisions for the 2018–23 regulatory control period, as well as the actual capex incurred by ElectraNet in previous regulatory control periods. There is little difference between ElectraNet's proposed capex and our draft and final decisions on total forecast capex.

1 NER, cl. 6A.5.4(a).
2 NER, cl. 6A.8.1(c)(1).
3 ElectraNet, *Revised revenue proposal 2018–23*, 22 December 2017, p. 25.
4 AER, *Draft decision*, *ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-9.

Figure 6.1 ElectraNet's total actual and forecast capex



Source: AER analysis.

ElectraNet accepted the AER's draft decision on total forecast capex. The difference between ElectraNet's revised capex proposal and our draft decision is due to ElectraNet updating its forecasts to account for:[5]

- the revised timing of the Dalrymple energy storage project and associated capital works deferrals
- updated estimates of forecast labour cost escalation in the 2018–23 regulatory control period.

ElectraNet also proposed some amendments to the trigger events for its proposed contingent projects in the 2018–23 regulatory control period.[6] Our final decision on ElectraNet's proposed contingent projects is set out in section 6.4.2.

6.3 Assessment approach

We must determine whether ElectraNet's proposal reasonably reflects the capex criteria set out in the NER.[7] We use various assessment techniques, both qualitative and quantitative, to assess the different elements of ElectraNet's proposal. We also use these techniques to develop our alternative estimate of the total forecast capex, which we use to test ElectraNet's total forecast capex.

5 ElectraNet, *Revised revenue proposal 2018–23*, 22 December 2017, p. 24.
6 ElectraNet, *Revised revenue proposal 2018–23*, 22 December 2017, pp. 26-27.
7 NER, cl. 6A.6.7(c).

If we are satisfied that ElectraNet's proposal reasonably reflects the capex criteria in meeting the capex objectives, we accept it. If we are not satisfied, the NER requires us to put in place a substitute estimate which we are satisfied reasonably reflects the capex criteria.

Our assessment approach is outlined in more detail in the draft decision.[8]

6.4 Reasons for final decision

6.4.1 Total forecast capex

In this final decision, for the reasons set out below and in our draft decision, we are satisfied that ElectraNet's total forecast capex reasonably reflects the capex criteria.[9] ElectraNet's revised total forecast capex is consistent with our draft decision, with project cost estimates updated to reflect more recent forecasts of labour cost escalation.

As we foreshadowed in our draft decision, for this final decision we have again updated the forecasts of labour cost escalation in the 2018–23 regulatory control period to reflect the most recent labour price forecasts from our consultant Deloitte Access Economics.[10] This results in an estimate of total forecast capex of $460.2 million, which we are satisfied reasonably reflects the capex criteria.[11]

6.4.1.1 Summary of stakeholder submissions

We received a number of submissions from interested stakeholders on our draft decision and ElectraNet's revised capex proposal. These submissions are summarised in Table 6.1 and discussed further below.

Table 6.1 Submissions on our draft decision and ElectraNet's revised proposal

Stakeholder	Summary of submission	AER summary response
Consumer Challenge Panel - Sub-Panel 9 (CCP)	The CCP submitted that it did not agree with our draft decision on capex and recommended that we:[12] • reconsider the inclusion of the Eyre Peninsula line replacement project in the capex allowance and include this expenditure in the scope of the Eyre Peninsula contingent project.	Our response to the issues raised by the CCP is set out in section 6.4.1.2.

8 AER, *Draft decision*, *ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-12 to 6-18 and 6-32 to 6-34.

9 AER, *Draft decision*, *ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017.

10 Deloitte Access Economics, *Labour Price Forecasts: Prepared for the Australian Energy Regulator*, February 2018, p. xiv.

11 NER, r. 6A.6.7.

12 Consumer Challenge Panel - Sub-panel 9, *Submission to the AER*, 1 February 2018, pp. 6 and 18–25.

	• consider if and to what extent the costs of the Main Grid System Strength Contingent Project should be included in the final decision capex forecast given the timetable for the project. • continue to include the successful completion of a RIT-T as a mandatory contingent project trigger and not accept ElectraNet's proposed changes to contingent project triggers.	
South Australian Council of Social Services (SACOSS)	In relation to ElectraNet's forecast capex, SACOSS submitted that:[13] • the AER erred in approving expenditure of around $80 million to replace the conductors and earth wire at four sections along the 132 kV line from Cultana to Port Lincoln. The draft decision provides insufficient justification for this, and the revised revenue proposal does not address the issues SACOSS has raised. • it has not been presented with evidence of the history of outages attributable to conductor failure, and the AER has failed to prove it has received and analysed such evidence. • responses to the following specific questions should be in the public domain: ○ What conductor tests were undertaken and how has this been used to assess failure? ○ What are the consequences of failure, having regard to the network support agreement with Synergen, plausible estimates of the frequency and duration of outages, the value of lost load and public safety? ○ Is there evidence to date of failure attributable to the conductor deterioration at the four sections that ElectraNet proposes to replace? • in summary, there is insufficient evidence to support the proposed expenditure on reconductoring sections of the existing line and accordingly, the AER should disallow this proposed expenditure in its final decision.	Our response to the issues raised by SACOSS is set out in section 6.4.1.2.
South Australian Department of the Premier and Cabinet - Energy and Technical Regulation Division (SA Energy Division)	SA Energy Division submitted that it supported our draft decision, including to accept ElectraNet's forecast capex for the 2018–23 regulatory control period.[14] SA Energy Division did not support ElectraNet's revised proposal to amend the trigger events for contingent projects to account for possible future changes to the investment evaluation framework. SA	We have maintained our draft decision to accept ElectraNet's total forecast capex for the 2018–23 regulatory control period. We have made some changes to the wording of contingent project triggers in this final decision. However, we have not accepted ElectraNet's

[13] SACOSS, *Submission to the AER*, 29 January 2018, pp. 1-4.

[14] South Australian Department of the Premier and Cabinet - Energy and Technical Regulation Division, *Submission to the AER*, 8 January 2018.

	Energy Division submitted that it would be premature and inconsistent with the current assessment process to introduce expectations of trigger alternatives in ElectraNet's contingent projects.	proposal for project triggers that allow for possible future alternative pathways for the approval of transmission investments. This is discussed further in section 6.4.2.
South Australian Chamber of Mines and Energy (SACOME)	SACOME noted that four of ElectraNet's proposed contingent projects aligned with the requirements of the resources sector in South Australia. SACOME submitted that it supports the inclusion of contingent capex projects that can respond promptly to specified development triggers. On this basis, SACOME supported our draft decision to approve ElectraNet's proposed contingent projects, with minor changes to the wording of project trigger requirements.[15]	We have included ElectraNet's proposed contingent projects as contingent projects for the 2018–23 regulatory control period, with further minor amendments to the wording of proposed trigger events. This is discussed further in section 6.4.2.
City of Port Lincoln	The City of Port Lincoln made a submission regarding the preferred option identified by ElectraNet in its Project Assessment Draft Report for the RIT-T process examining electricity supply options for the Eyre Peninsula. The City of Port Lincoln submitted that an alternative option to the preferred option identified by ElectraNet would take greater advantage of available renewable energy resources on Eyre Peninsula.[16]	This final decision includes the Eyre Peninsula Reinforcement project as a contingent project for the 2018–23 regulatory control period. Identification of the preferred investment option for this project is not a matter for this determination. This will be considered by ElectraNet in developing the Project Assessment Conclusions Report for the Eyre Peninsula Electricity Supply Options RIT-T.
Uniting Communities	Uniting Communities submitted that it was satisfied that ElectraNet's revised revenue proposal was reasonable and in line with our draft decision. Uniting Communities did not express a view on the particular contingent projects proposed by ElectraNet, but noted in general that it did not want to see consumers required to pay higher future prices because the return on regulated asset bases has escalated due to contingent projects.[17]	We have accepted ElectraNet's forecast of total capex in the 2019–23 regulatory control period, updated to reflect the latest forecasts of real growth in labour costs. Our assessment of proposed contingent projects is discussed in section 6.4.2.
ElectraNet	ElectraNet responded to the public submissions received by the AER on its revised revenue proposal.[18]	Where we have addressed matters raised by submissions, we have also considered ElectraNet's response to those submissions where relevant.

6.4.1.2 Consideration of submissions

As set out in section 6.4.1, in this final decision we have maintained our draft decision to accept ElectraNet's forecast of required total capex in the 2018–23 regulatory control period. In reaching this conclusion, we have had regard to the submissions received from stakeholders, as well as ElectraNet's responses to those submissions. In summary, we are not persuaded that the submissions received have provided new and

15 South Australian Chamber of Mines and Energy, *Submission to the AER*, 23 January 2018.
16 City of Port Lincoln, *Submission to the AER*, 20 December 2017.
17 Uniting Communities, *Submission to the AER*, January 2018.
18 ElectraNet, *Submissions on Revised Revenue Proposal - Issues Summary_Final*, 16 March 2018.

compelling evidence beyond that already considered in reaching our draft decision that would cause us to depart from the conclusions set out and explained in that decision.

As shown in Table 6.1, while some submissions supported our draft decision on total forecast capex, others raised concerns regarding some aspects of that decision. These concerns predominately related to:

- the inclusion of expenditure for the Eyre Peninsula line refurbishment project in ElectraNet's forecast of required capex in the 2018–23 regulatory control period
- the relationship between the Eyre Peninsula line refurbishment project and the Eyre Peninsula Supply Options contingent project
- the inclusion of capex relating to the Main Grid System Strength contingent project in the ex-ante capex forecast.

We have sought to explore and address these concerns in this section.

Eyre Peninsula line refurbishment project and Eyre Peninsula Supply Options contingent project

In our draft decision, we accepted ElectraNet's total forecast capex, which included approximately $80 million relating to the Eyre Peninsula refurbishment project.[19] This project is for the replacement of transmission line conductor and earth wire for specified sections of the 132 kV transmission line which runs from Cultana to Yadnarie to Port Lincoln on the Eyre Peninsula. We also included a contingent project relating to alternative options for investment in the Eyre Peninsula region under consideration as part of ElectraNet's *Eyre Peninsula Electricity Supply Options* RIT-T process.[20]

The CCP submitted that it is concerned that the overall investment program for the Eyre Peninsula transmission network is split between the ex-ante capex forecast and a contingent project.[21] The CCP recommended that we include the forecast expenditure for the Eyre Peninsula line refurbishment project in the scope of the *Eyre Peninsula Supply Options* contingent project.[22]

The CCP noted that there are multiple interactions between the Eyre Peninsula capex and contingent project investments, network support payments to generators at Port Lincoln, other RIT-T processes, AEMO's Integrated System Plan, and the potential for reliability driven distribution network investment by SA Power Networks, such that it has become difficult for consumers to assess the efficacy and efficiency of transmission investment. We acknowledge these complexities, and we have therefore sought to clarify the scope and nature of this decision to place it within the context of the wider issues noted by the CCP.

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19 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-52 to 6-55.

20 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-74.

21 CCP Sub-panel 9, *Submission to the AER*, 1 February 2018, p. 20.

22 CCP Sub-panel 9, *Submission to the AER*, 1 February 2018, p. 25.

This final decision provides, for ElectraNet's transmission network in the 2018–23 regulatory control period:

- a forecast of total capex requirements, and
- a set of contingent projects with specified trigger events.

The nature of these two aspects of our decision is discussed in the box below.

What is the difference between forecast capex and contingent capex?

The key difference between forecast capex and contingent capex is the level of certainty that exists around the investment need, timing and costs at the time that we make our revenue determination.

A TNSP's forecast of total capex includes expenditure that it considers is required to achieve the capex objectives in the relevant regulatory control period. For example, the capex may be required to maintain the reliability and security of the transmission system. If we are satisfied that the total forecast capex reasonably reflects the efficient costs that a prudent operator would require to achieve the capex objectives in the regulatory control period (the capex criteria) then we must accept this forecast. Forecast capex is included in the regulated asset base and contributes to required revenue within the regulatory control period.

In contrast, contingent capex projects are by their nature more uncertain. The key areas of uncertainty are that:

(i) it is not sufficiently certain that the event or condition which triggers the need for investment will occur during the regulatory control period, or

(ii) the costs associated with the event or condition are not sufficiently certain.

Contingent capex is not included in the regulated asset base until the uncertainty is resolved. When a contingent project is triggered, we then determine the required amount of expenditure that meets the capex criteria.

In the draft decision, we concluded that ElectraNet's forecast capex, which includes capex relating to the Eyre Peninsula line refurbishment project, reasonably reflects the capex criteria.[23] ElectraNet provided supporting documentation for this project, including an investment risk analysis memorandum and economic model.[24] ElectraNet's analysis considered the need for investment, driven by asset condition and forecast failure rates, and assessed the costs and benefits of alternative options, including the option of deferring investment beyond the 2018–23 regulatory control

[23] AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-9.

[24] ElectraNet, *IR001-EC.14145,14137 Eyre Economic Model-20170614-v2-Confidential*; ElectraNet, *Eyre Peninsula Line Conductor and Earthwire Refurbishment - IRT Model Explanation Note* (Confidential), 21 June 2017.

period. We were satisfied that the information submitted by ElectraNet demonstrated that the forecast capex for the Eyre Peninsula refurbishment project is economically justified in the 2018–23 regulatory control period.

As noted in our draft decision and by ElectraNet in its response to the CCP's submission, the forecast line refurbishment capex is the minimum level of investment required within the 2018–23 regulatory control period to address the condition of the line and maintain the current reliability and security of supply.[25] The need for this investment is not contingent on the occurrence of a particular event. The project scope and costs have been clearly identified through detailed asset condition assessment, risk analysis and economic evaluation. The forecast capex therefore sits most appropriately within ElectraNet's ex-ante capex forecast. This also provides greater transparency and assists in maintaining a more stable price path for customers.

The Eyre Peninsula Reinforcement contingent project separately provides for additional investment that may (or may not) be justified, subject to a RIT-T process identifying a preferred investment option that maximises net economic benefits. We have included this project as a contingent project in the 2018–23 regulatory control period, as discussed in section 6.4.2.

The Eyre Peninsula line refurbishment project represents the 'business as usual' base case against which ElectraNet is assessing the additional costs and benefits of all other options under consideration through the *Eyre Peninsula Supply Options* RIT-T process.[26] Completion of the current RIT-T process should provide evidence of a comprehensive and transparent assessment of credible options which demonstrates that any resulting network investment maximises net economic benefits in the long term interests of consumers. The options and scenarios examined through the RIT-T process will also consider, to the extent possible, the various interactions identified by the CCP between additional investments in the Eyre Peninsula network, support payments to generators at Port Lincoln, other current RIT-T processes and AEMO's Integrated System Plan.

Importantly, our final decision does not oblige ElectraNet to complete the line refurbishment project as proposed. Should ElectraNet identify an alternative preferred option through the RIT-T process, we expect in those circumstances that:

- the line refurbishment project would not proceed as proposed
- the forecast capex for the line refurbishment project would be applied to the preferred option for the Eyre Peninsula Reinforcement contingent project

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[25] AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-54; and ElectraNet, *Submissions on Revised Revenue Proposal - Issues Summary_Final*, 16 March 2018, p. 3.

[26] ElectraNet, *Eyre Peninsula Electricity Supply Options Regulatory Investment Test for Transmission - Project Assessment Draft Report*, 16 November 2017, p. 21.

- if the trigger events for the Eyre Peninsula Reinforcement contingent project have occurred, ElectraNet would apply to amend its revenue determination to recover only the differential in costs between the line refurbishment project and the preferred investment option identified through the RIT-T.

SACOSS submitted that the forecast expenditure for the Eyre Peninsula line refurbishment project should be excluded from the total capex forecast as there is insufficient evidence to support the proposed expenditure. SACOSS was concerned that we had either not reviewed or not adequately referred in our draft decision to evidence of the asset failure history of the existing Eyre Peninsula 132kV line, and submitted that responses to the following specific questions should be in the public domain:[27]

- What conductor tests were undertaken and how has this been used to assess failure?
- What are the consequences of failure, having regard to the network support agreement with Synergen, plausible estimates of the frequency and duration of outages, the value of lost load and public safety?
- Is there evidence to date of failure attributable to the conductor deterioration at the four sections that ElectraNet proposes to replace?

Our draft decision made a number of references to our assessment and findings regarding ElectraNet's methodology and approach to quantifying the consequences of asset failure and applying this analysis in its economic assessment of investment options, including:

> The line refurbishment project is driven by ElectraNet's assessment of the quantified risk costs arising from the physical condition and expected failure rate of the line sections identified for refurbishment.[28]
>
> ****
>
> The framework used by ElectraNet to determine the probability of failure of individual asset types appears reasonable as it considers different asset failure modes, historical asset failure rates and actual asset condition…[29]
>
> ****
>
> ElectraNet's investment risk tool analysis used to inform the economic assessment of asset replacement and refurbishment decisions is consistent

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27 SACOSS, *Submission to the AER*, 29 January 2018, pp. 1-4.

28 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-54.

29 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-49.

with good industry practice and generally reflects reasonable inputs and assumptions.[30]

In our published regulatory determinations we seek to strike a balance between providing sufficient detail to explain and support our decisions, while at the same time ensuring our determinations are accessible to readers without specific industry knowledge. We are also required to maintain the confidentiality of information submitted to us which businesses have claimed confidentiality over. This necessarily means that our determinations may not contain all the information that we have regard to in making our decision.

In relation to SACOSS's specific questions regarding the Eyre Peninsula line refurbishment project, we acknowledge that while these factors were addressed in the documentation provided by ElectraNet and reviewed by us to assess this project,[31] much of the detail was technical in nature and/or classified as confidential and not reproduced in our draft decision. We therefore set out ElectraNet's response to the issues raised by SACOSS in its submission, including the three specific questions outlined above, to provide further detail on these issues. In response to SACOSS, ElectraNet stated that:[32]

- Sample testing and analysis of conductor condition was undertaken by an independent laboratory to assess projected failure rates.
- Line failure results in loss of supply impacts for customers (both short term for those able to be supplied by the network support service at Port Lincoln and more extended outages for those that cannot), escalating maintenance costs in repairing assets, and public safety risks of conductors falling to the ground. These factors have been considered in detail through the risk assessment and economic evaluation.
- ElectraNet has experienced failures to date in the deteriorated sections of conductor.
- The driver of the re-conductoring project is to maintain prescribed reliability standards on Eyre Peninsula, not to improve reliability or reduce minutes off supply.
- ElectraNet has modelled the option of deferring this project to the following regulatory period, which was found to provide lower net benefits to customers because of escalating line outages and maintenance costs.

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30 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-3.

31 ElectraNet, *IR001-EC.14145,14137 Eyre Economic Model-20170614-v2-Confidential*; ElectraNet, *Eyre Peninsula Line Conductor and Earthwire Refurbishment - IRT Model Explanation Note* (Confidential), 21 June 2017.

32 ElectraNet, *Submissions on Revised Revenue Proposal - Issues Summary_Final*, 16 March 2018, p. 7.

Main Grid System Strength contingent project

The Main Grid System Strength (MGSS) contingent project relates to the installation of a number of synchronous condensers across the South Australian transmission network, at an indicative cost of $80 million, to address a shortfall in system strength services identified by AEMO in the South Australian region. The CCP submitted that some investment under the Main Grid System Strength (MGSS) contingent project is now virtually certain, and that we should therefore consider the extent to which the cost of this project should be included in the total forecast capex for this final decision.[33] The CCP rightly noted that consumers should be aware that significant growth in ElectraNet's regulated asset base would occur if this and other contingent projects are triggered in the 2018–23 regulatory control period.[34]

ElectraNet submitted that while it has been assessing long term options to address the gap in system strength services declared by AEMO in the South Australian region, it is unlikely that these investigations would be concluded in time for inclusion of this project in the forecast capex for the 2018–23 regulatory control period.[35]

We agree with the CCP that there is now a high level of certainty on the need for expenditure in some form by ElectraNet to address the gap in system strength services declared by AEMO on 13 October 2017. However, significant uncertainty remains regarding the costs associated with addressing this need. The MGSS contingent project provides an indicative scope and cost for the installation of synchronous condensers as the most prospective network option to address this need. However, important details of the design and implementation of this solution are uncertain at this time, including:

- the technical specification and design of a synchronous condenser solution, including the optimal number and location of synchronous condenser units
- procurement and installation costs and timeframes
- other factors, such as the need for development approvals and land or easement acquisition.

In these circumstances, there is not sufficient certainty regarding the costs associated with addressing the system strength services gap declared by AEMO in South Australia to include an estimate of those costs in ElectraNet's total forecast capex. There is insufficient information available at this time for us to be satisfied as to the costs required to achieve the capex objectives, and whether these costs reasonably reflect the capex criteria. It is therefore appropriate that these costs remain as contingent capex for 2018–23 regulatory control period.

Should ElectraNet successfully trigger the MGSS contingent project in the 2018–23 regulatory control period, we will then assess whether the amounts of forecast capex

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33 CCP Sub-Panel 9, *Submission to the AER*, 1 February 2018, pp. 23–25.

34 CCP Sub-Panel 9, *Submission to the AER*, 1 February 2018, p. 23.

35 ElectraNet, *Submissions on Revised Revenue Proposal - Issues Summary_Final*, 16 March 2018, p. 3.

and opex required to undertake the project reasonably reflect the capex and opex criteria.[36] Stakeholders will also have an opportunity to provide submissions on ElectraNet's application to recover the incremental revenue required in the 2018–23 regulatory control period to undertake the project.[37]

We note that, while we have not accepted the CCP's recommendations to (a) include forecast capex in place of the MGSS contingent project and (b) exclude forecast capex for the Eyre Peninsula line refurbishment project, the net effect of those offsetting adjustments would result in an estimate of total forecast capex that is broadly consistent with this final decision.

6.4.2 Contingent projects

Contingent projects are significant network augmentation projects that may arise during the regulatory control period for which the need, timing and/or costs are currently uncertain. While the expenditures for such projects do not form a part of our assessment of the total forecast capital expenditure that we approve in this determination, the cost of the projects may ultimately be recovered from customers in the future if certain conditions (trigger events) are met.

ElectraNet proposed $630 million to $950 million for five contingent projects for the 2018–23 regulatory control period. The five proposed contingent projects are:

- Eyre Peninsula Reinforcement ($200 million)
- South Australian Energy Transformation ($200-500 million)
- Upper North-East Line Reinforcement ($60 million)
- Upper North-West Line Reinforcement ($110 million)
- Main Grid System Strength Support ($60-80 million).

We must review each of ElectraNet's proposed contingent projects against the assessment criteria in the NER. [38] In doing so, we consider whether:

- the proposed contingent project is reasonably required to be undertaken in order to achieve any of the capex objectives[39]
- the proposed contingent project capital expenditure is not otherwise provided for in the capex accepted or substituted by the AER[40]
- the proposed contingent project capital expenditure reasonably reflects the capex criteria, taking into account the capex factors, in the context of the proposed contingent project[41]

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[36] NER, cl. 6A.8.2(f)(2).
[37] NER, cl. 6A.8.2(c).
[38] NER, cl. 6A.8.1.
[39] NER, cl. 6A.8.1(b)(1).
0[40] NER, cl. 6A.8.1(b)(2)(i)..

- the proposed contingent project capital expenditure exceeds the defined materiality threshold[42]
- the trigger events in relation to the proposed contingent project are appropriate.[43]

The definition of the trigger events associated with each project is important, as it is the occurrence of these events that determines when ElectraNet may apply to us to recover the efficient costs of undertaking the projects. In assessing whether the proposed trigger events are appropriate, we have regard to the need for each trigger event to be:[44]

- reasonably specific and capable of objective verification
- a condition or event which, if it occurs, makes the project reasonably necessary in order to achieve any of the capex objectives
- a condition or event that generates increased costs or categories of costs that relate to a specific location rather than a condition or event that affects the transmission network as a whole
- described in such terms that it is all that is required for the revenue determination to be amended
- probable during the 2018–23 period but the inclusion of capex in relation to it (in the total forecast capex) is not appropriate because there is not sufficient certainty regarding either the occurrence of the event or condition during the regulatory control period or the costs associated with the event or condition.

If, during the regulatory control period, ElectraNet considers that the trigger events for an approved contingent project have occurred, then it may apply to us to amend its revenue determination.[45] At that time, we will publish the application and invite written submissions.[46] We will then assess whether the defined trigger events have occurred and the project meets the materiality threshold. If satisfied that this is the case, we will determine the amount of capex and incremental opex that we consider is reasonable to undertake the project and therefore the efficient incremental revenue which is likely to be required in each remaining year of the regulatory control period as a result of undertaking the contingent project.[47] In doing so, we will consider whether the amounts of forecast capex and incremental operating expenditure reasonably reflect the capex and opex criteria, taking into account the capex and opex factors, in the context of the contingent project.[48]

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41 NER, cl. 6A.8.1(b)(2)(ii).
42 NER, cl. 6A.8.1(b)(2)(iii).
43 NER, cl. 6A.8.1(b)(4).
44 NER, cl. 6A.8.1(c).
45 NER, cl. 6A.8.2 (a).
46 NER, cl. 6A.8.2 (c).
47 NER, cl. 6A.8.2 (e).
48 NER, cl. 6A.8.2 (f)(2).

6.4.2.1 Position

We are satisfied that ElectraNet's proposed five contingent projects may be reasonably required to be undertaken in order to meet or manage the expected demand for transmission services, and/or maintain reliability, over the 2018–23 regulatory control period.[49] However, we are not satisfied that all the trigger events in relation to the proposed contingent projects proposed by ElectraNet are appropriate.[50] Rather, the trigger events required for four of ElectraNet's contingent projects are those set out in Table 6.2. We are satisfied that these trigger events meet the NER requirements.

Table 6.2 AER contingent project trigger events

Contingent Project	AER trigger events - final decision
Eyre Peninsula Reinforcement	1. Successful completion of a RIT-T including an assessment of credible options identifying the duplication or replacement of the existing Cultana to Yadnarie and/or Yadnarie to Port Lincoln transmission lines as the preferred option that maximises positive net economic benefits and/or addresses a reliability corrective action. 2. Determination by the AER that the proposed investment satisfies the RIT-T. 3. ElectraNet Board commitment to proceed with the project subject to the AER amending the revenue determination pursuant to the Rules. 4. Clauses 1 and 2 do not apply if a change in the law occurs that allows the inclusion of the proposed investment in ElectraNet's maximum allowed revenue under this revenue determination even if a RIT-T is not carried out.
South Australian Energy Transformation	1. Successful completion of the South Australian Energy Transformation RIT-T with the identification of a preferred option or options: (i) demonstrating positive net economic benefits; and/or (ii) addressing a reliability corrective action. 2. Determination by the AER that the proposed investment satisfies the RIT-T. 3. ElectraNet Board commitment to proceed with the project subject to the AER amending the revenue determination pursuant to the Rules. 4. Clauses 1 and 2 do not apply if a change in the law occurs that allows the inclusion of the proposed investment in ElectraNet's maximum allowed revenue under this revenue determination even if a RIT-T is not carried out.

[49] NER, cl. 6A.8.1(b)(1).

[50] NER, cl. 6A.8.1(b)(4).

Main Grid System Strength Support	1. Confirmation by AEMO of the existence of a NSCAS gap relating to system strength, or other requirement for ElectraNet to address a system strength requirement, in the South Australian region. 2. Successful completion of the RIT-T (or equivalent economic evaluation) including an assessment of credible options showing a transmission investment is justified. 3. Determination by the AER that the proposed investment satisfies the RIT-T (or equivalent economic evaluation). 4. ElectraNet Board commitment to proceed with the project subject to the AER amending the revenue determination pursuant to the Rules.
Upper North-East Line Reinforcement	1. Customer commitment for additional load to connect to the transmission network causing the Davenport to Leigh Creek 132kV line to exceed its thermal limit of 10 MVA. 2. Successful completion of the RIT-T including an assessment of credible options showing a new connection point and line upgrade is the preferred option that maximises positive net economic benefits and/or addresses a reliability corrective action. 3. Determination by the AER that the proposed investment satisfies the RIT-T. 4. ElectraNet Board commitment to proceed with the project subject to the AER amending the revenue determination pursuant to the Rules. 5. Clauses 2 and 3 do not apply if a change in the law occurs that allows the inclusion of the proposed investment in ElectraNet's maximum allowed revenue under this revenue determination even if a RIT-T is not carried out.
Upper North-West Line Reinforcement	1. Customer commitment for additional load to connect to the transmission network causing the Davenport to Pimba 132kV line to exceed its thermal limit of 76 MVA. 2. Successful completion of the RIT-T including an assessment of credible options showing a transmission investment is the preferred option that maximises positive net economic benefits and/or addresses a reliability corrective action. 3. Determination by the AER that the proposed investment satisfies the RIT-T. 4. ElectraNet Board commitment to proceed with the project subject to the AER amending the revenue determination pursuant to the Rules. 5. Clauses 2 and 3 do not apply if a change in the law occurs that allows the inclusion of the proposed investment in ElectraNet's maximum allowed revenue under this revenue determination even if a RIT-T is not carried out.

Source: AER analysis

6.4.2.2 Draft decision

In our draft decision, we were satisfied that the five contingent projects proposed by ElectraNet may reasonably be required to be undertaken in order to meet or manage the expected demand for transmission services, and/or maintain reliability, over the

2018-23 regulatory control period.[51] However, we were not satisfied that the trigger events in relation to the proposed contingent projects proposed by ElectraNet were appropriate.[52] As such, we required ElectraNet to amend the trigger events for all the proposed contingent projects.[53]

We required ElectraNet to amend the wording of the project triggers to remove reference to our determination being made 'under clause 5.16.6 of the NER'. We acknowledged this approach differed to recent determinations.[54] While we considered clause 5.16.6 to be useful in setting out a process and timeframe for the AER to make such a determination, the operation of clause 5.16.6 excludes projects driven by the need for reliability corrective action. We considered that this trigger should be amended to the following:[55]

- determination by the AER that the proposed investment satisfies the RIT-T.

This change ensured that all contingent projects triggered by RIT-T processes would be subject to this trigger.

6.4.2.3 ElectraNet's revised proposal

In its revised proposal, ElectraNet accepted our amendment to the project trigger events to remove reference to our determination on whether the proposed investment satisfies the RIT-T as being made 'under clause 5.16.6 of the NER'.[56] However, ElectraNet proposed further refinements to the trigger events for the Eyre Peninsula Reinforcement and South Australian Energy Transformation contingent projects to reflect developments that have occurred subsequent to its initial revenue proposal. In particular, ElectraNet submitted that it was motivated to refine its triggers in response to the following Finkel Review recommendations:[57]

- AEMO is to develop an integrated grid plan to identify efficient locations for renewable energy zones and subsequently to identify potential priority transmission projects to facilitate their connection; and
- specifying a potential role for governments in supporting specific transmission investments, if the market does not deliver. This would be supported by a framework of project evaluation to be developed by the AEMC.

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51 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-68.

52 NER, cl. 6A.8.1(b)(4).

53 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-69 to 6-70.

54 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-69 to 6-70.

55 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-70.

56 ElectraNet, *Revised revenue proposal 2018–23*, December 2017, p. 26.

57 ElectraNet, *Revised revenue proposal 2018–23*, December 2017, p. 26.

ElectraNet also proposed to amend the trigger events for the Main Grid System Strength Support contingent project to reflect changes to the NER made in September 2017.[58]

Table 6.3 below summarises ElectraNet's proposed amended triggers for three of its contingent projects: Eyre Peninsula Reinforcement, South Australian Energy Transformation and Main Grid System Strength Support.[59] ElectraNet did not propose any amendments to the trigger events for its other two contingent projects.

[58] AEMC, *Rule Determination - National Electricity Amendment (Managing power system fault levels) Rule 2017*, 19 September 2017.

[59] ElectraNet, *Revised revenue proposal 2018–23*, December 2017, p. 26.

Table 6.3 ElectraNet's amended contingent project triggers

Contingent Project	Proposed amended triggers	Basis for amended trigger
Eyre Peninsula Reinforcement ($200m)[a]	1a. Successful completion of the RIT-T including an assessment of credible options identifying the duplication or replacement of the existing Cultana to Yadnarie and/or Yadnarie to Port Lincoln transmission lines as the preferred option. OR 1b. A decision by a government or regulatory body that results in a requirement for ElectraNet to undertake an augmentation of the transmission network serving the Eyre Peninsula as a prescribed transmission service. 2. Determination by the AER that the proposed investment satisfies the RIT-T or alternative applicable decision-making framework.	Development of an Integrated Grid Plan by AEMO to facilitate the efficient development and connection of renewable energy zones across the NEM, including a list of potential priority transmission projects governments could support if the market does not deliver the required investment. On 18 December 2017, AEMO published a consultation document for its Integrated System Plan that recognises a number of renewable energy zones on the Eyre Peninsula, and identifies expanding transmission capacity to the Eyre Peninsula in its priority list of eight potential transmission development options across the NEM.
South Australian Energy Transformation ($200m to $500m)	1a. Successful completion of the South Australian Energy Transformation RIT-T with the identification of a preferred option or options: (i) demonstrating positive net market benefits; and/or (ii) addressing a reliability corrective action. OR 1b. A decision by a government or regulatory body that results in a requirement for ElectraNet to deliver a solution involving increased interconnection (and/or non-interconnector alternatives) from South Australia as a prescribed transmission service. 2. Determination by the AER that the proposed investment satisfies the RIT-T or alternative applicable decision-making framework.	ElectraNet considers that the South Australian Energy Transformation project potentially contributes strongly to the development of renewable energy zones in the NEM. AEMO recognised up to 11 potential renewable energy zones covering parts of South Australia, and identified increasing interconnection from South Australia in its priority list of eight potential transmission development options across the NEM.
Main Grid System Strength Support ($60m to $80m)	3. Determination by the AER that the proposed investment satisfies the RIT-T (or equivalent economic evaluation).	Impact of the AEMC Rule Determination in September 2017 which recognises that the RIT-T may not apply in relation to this project and allows for an equivalent economic evaluation to be undertaken.

Source: AER analysis.

[a] The net total of contingent capex for this project is approximately $120 million, when ex-ante capex for the refurbishment of lines on the Eyre Peninsula is excluded.

6.4.2.4 Submissions

We received a number of submissions on our draft decision and ElectraNet's revised proposal for contingent projects in the 2018–23 regulatory control period.

The CCP supported our draft decision to require a RIT-T for all the proposed contingent projects.[60] The CCP did not support ElectraNet's proposal to modify the trigger for the Main Grid System Strength contingent project to remove the RIT-T requirement. The CCP submitted that, in principle, it places a high value on the RIT-T process as it ensures high levels of transparency, appropriate consultation, and consideration of other options including non-network supply.[61] The CCP considered that the RIT-T is the current evaluation process and that any alternate investment framework to replace this would need to be codified in the NER.[62] The CCP concluded that we continue to include the successful completion of a RIT-T as a mandatory contingent project trigger (as per our draft decision) and not accept ElectraNet's proposed changes.[63]

The SA Energy Division noted that ElectraNet's revised proposal is seeking further refinements to our triggers based on possible changes to develop an evaluation framework to enable development of potential priority projects under AEMO's Integrated System Plan. The SA Energy Division submitted that whilst it values consideration of coordinated network system planning, the assessment process should benefit from further consultation and consideration by all market participants. The SA Energy Division therefore considers that it would be premature and inconsistent with the current assessment process to introduce expectations of trigger alternatives for ElectraNet's contingent projects.[64]

In its submission, the South Australian Chamber of Mines and Energy supported the contingent project triggers in our draft decision.[65]

Uniting Communities submitted that contingent projects should be subject to the sort of consumer engagement that has been demonstrated in the development of ElectraNet's proposal.[66]

As discussed below, our final decision on ElectraNet's contingent projects and trigger events is consistent with these submissions. We agree with the CCP and SA Energy Division that our final decision should reflect the current transmission investment framework, which is focussed on the RIT-T as the mechanism to provide a transparent and thorough assessment of investment options and safeguard the interests of consumers funding those investments. We also support Uniting Communities' submission in favour of consumer engagement by network services providers on contingent projects, including through RIT-T processes, in advance of submitting contingent project applications to us.

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60 CCP Sub-Panel 9, *Submission to the AER*, 1 February 2018, p. 6.

61 CCP Sub-Panel 9, *Submission to the AER*, 1 February 2018, p. 6.

62 CCP Sub-Panel 9, *Submission to the AER*, 1 February 2018, p. 24.

63 CCP Sub-Panel 9, *Submission to the AER*, 1 February 2018, p. 25.

64 South Australian Department of the Premier and Cabinet - Energy and Technical Regulation Division, *Submission to the AER*, 8 January 2018.

65 South Australian Chamber of Mines and Energy, *Submission to the AER*, 25 January 2018.

66 Uniting Communities, *Submission to the AER*, January 2018.

6.4.2.5 Reasons for final decision

Based on our assessment of ElectraNet's revised proposal, and for the reasons set out in our draft decision,[67] we consider that the five contingent projects proposed may be reasonably required to be undertaken in order to meet the expected demand for transmission services, and/or reliability over the 2018-23 regulatory control period. However, we are not satisfied that the trigger events in relation to the proposed contingent projects which are proposed by ElectraNet are appropriate.[68] For each contingent project, we consider that all of the trigger events for that project set out in Table 6.2 must have occurred before ElectraNet may apply to us to amend its revenue determination in accordance with the NER.[69]

As discussed in section 6.4.2.3, ElectraNet proposed revised triggers for its contingent projects to reflect the possibility that an alternative approval pathway for transmission investment in the NEM other than the RIT-T may be developed, and to recognise that the RIT-T may not apply in relation to the Main Grid System Strength Support project.[70]

We consulted with ElectraNet on the amendments to the trigger events put forward in its revised proposal and our position on these amendments for this final decision.[71] A summary of ElectraNet's revised proposal, response to our information request,[72] and our position for each contingent project is provided below.

Eyre Peninsula Reinforcement

- ElectraNet proposed to amend the trigger events for this project to provide for the possibility that an alternative pathway for the approval of transmission investments other than the RIT-T may be developed in the future. ElectraNet's revised proposal would allow the project to be triggered either following successful completion of the RIT-T or by a decision of a government or regulatory body that results in a requirement for ElectraNet to undertake transmission network augmentation.[73]
- ElectraNet considered that the AEMC has generally been reluctant in the past to entertain Rule changes that disturb or alter an aspect of a revenue determination mid-way through a regulatory period. Should an alternative transmission investment approval process be introduced in the near future, as has been recommended by the Finkel review and endorsed by COAG, it may therefore not be possible to secure a Rule change at that time that retrospectively amends the contingent project triggers approved by us.[74]

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67 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, pp. 6-76 to 6-92.

68 NER, cl. 6A.8.1(b)(4).

69 NER, cl. 6A.8.2.

70 ElectraNet, *Revised revenue proposal 2018–23*, 22 December 2017, pp. 26-27.

71 AER, *Information request 14 - ElectraNet proposed contingent project trigger events,* 6 March 2018.

72 ElectraNet, *Response to AER information request 14 - Proposed contingent project trigger events,* 15 March 2018.

73 ElectraNet, *Revised revenue proposal 2018–23*, 22 December 2017, p. 26.

74 ElectraNet, *Response to AER information request 14 - Proposed contingent project trigger events,* 15 March 2018.

- ElectraNet noted that, under the trigger events it proposed:[75]
    - the role of the RIT-T as a transparent and thorough framework for economic assessment of credible options is preserved, until such time as an alternative investment approval process directed by a government or regulatory body becomes available
    - the AER would retain the right to determine that such an alternative applicable decision making framework had been satisfied before the trigger could be met; and
    - inclusion of such a trigger at this time is a no-regrets measure, as it would have no effect until such time as an alternative approval framework were introduced.
- ElectraNet therefore considered its proposed trigger event to be preferable to maximise certainty for stakeholders. Failing this, in order to provide transparency to stakeholders and clear guidance for the AEMC, ElectraNet recommended that the AER express its explicit support in the final revenue determination for the inclusion of such a contingent project trigger at such time as a new transmission investment approval process is introduced through appropriate consequential Rule changes.[76]
- We have not accepted ElectraNet's revised trigger events for this project. We consider that it is appropriate for the contingent project triggers for this decision to reflect the current framework for transmission investment under the NER. (The possibility of future legislative amendments to this framework is discussed further below). We are not satisfied that a contingent project trigger which refers to a possible new transmission investment approval pathway, which may or may not come into effect after the date of this final decision, is appropriate.[77] It is too early for the AER to be able to ascertain whether any such pathway would provide an appropriate trigger event, under the NER in its current form, having regard to the need for a trigger event to have the specific characteristics set out in the NER.[78] We are not satisfied that ElectraNet's proposed trigger is reasonably specific, as the decision making criteria established by or applicable to that decision have not yet been formulated.

South Australian Energy Transformation

- Similar to the Eyre Peninsula Reinforcement project, ElectraNet proposed to amend the trigger events for the South Australian Energy Transformation project to provide for the possibility that an alternative pathway for the approval of transmission investments other than the RIT-T may be developed in the future. ElectraNet's revised proposal would allow the project to be triggered either following successful completion of the RIT-T or by a decision of a government or

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75 ElectraNet, *Response to AER information request 14 - Proposed contingent project trigger events*, 15 March 2018.
76 ElectraNet, *Response to AER information request 14 - Proposed contingent project trigger events*, 15 March 2018.
77 NER, cl. 6A.8.1(b)(4).
78 NER, cl. 6A.8.1(c).

regulatory body that results in a requirement for ElectraNet to undertake transmission network augmentation.[79]

- We sought ElectraNet's view on whether the triggers for this project should be aligned with the interconnection contingent project triggers proposed by TransGrid in NSW. ElectraNet submitted that while generally desirable, precise alignment of the respective contingent project triggers of ElectraNet and TransGrid may not be necessary in this case. While it may be appropriate for TransGrid's contingent project triggers to specifically recognise the need for a network investment option as the preferred solution (or else no prescribed network investment by TransGrid would be warranted), it is possible that a network investment or interconnector does not maximise net market benefits under the RIT-T. It is therefore important that the trigger events do not rule out a non-network solution in South Australia. We agree with this view.[80]
- As for the Eyre Peninsula Reinforcement project, we have not accepted ElectraNet's revised trigger events for the South Australian Energy Transformation project. As discussed above, we consider that it is appropriate for the contingent project triggers for this decision to reflect the current framework for transmission investment under the NER. We are not satisfied that a contingent project trigger which refers to a possible new transmission investment approval pathway, which may or may not come into effect after the date of this final decision, is 'reasonably specific' as required by the NER.[81]

Main Grid System Strength Support

- ElectraNet proposed to amend one of the trigger events for this project to recognise that the RIT-T may not apply in relation to this project following amendments to the NER made by the AEMC in September 2017.[82] The revised trigger allows for an equivalent economic evaluation to be undertaken.
- We have accepted this proposed amendment. We recognise that for the Main Grid System Strength project, the AEMC's *Managing Power System Fault Levels* rule determination of 19 September 2017 provides for TNSPs to not apply the RIT-T to proposed expenditure where a fault level shortfall is declared in a region and the time for making system strength services available is less than 18 months after the notice is given by AEMO.[83]

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79 ElectraNet, *Revised revenue proposal 2018–23*, 22 December 2017, p. 27.

80 ElectraNet, *Response to AER information request 14 - Proposed contingent project trigger events, 15* March 2018.

81 NER, cl. 6A.8.1(b)(4).

82 AEMC, *Rule Determination - National Electricity Amendment (Managing power system fault levels) Rule 2017*, 19 September 2017.

83 AEMC, *Rule Determination - National Electricity Amendment (Managing power system fault levels) Rule 2017*, 19 September 2017.

Upper North-East Reinforcement and Upper North-West Reinforcement

- We sought ElectraNet's view on revised project triggers for these projects which would require the preferred RIT-T solution to demonstrate positive net economic benefits. ElectraNet noted that requiring the preferred RIT-T solution to demonstrate positive net economic benefits is not consistent with a reliability corrective action (which requires the least cost option or combination of options to be identified) and may prevent a new prescribed customer connection satisfying the RIT-T. ElectraNet proposed that reference to 'positive' net economic benefits be removed from the amended triggers so as not to preclude a reliability corrective action.[84]
- We agree with this view, and have therefore amended the triggers for these projects to explicitly provide for preferred options which demonstrate positive net economic benefits and/or address a reliability corrective action. This is consistent with the drafting of triggers for the South Australian Energy Transformation and Eyre Peninsula Reinforcement contingent projects.

Conclusion

We have reviewed ElectraNet's amended triggers in relation to the possibility of a new approval pathway for transmission development, but do not accept this aspect of ElectraNet's proposed trigger events. We recognise that ElectraNet has proposed amended triggers for the Eyre Peninsula Reinforcement and South Australian Energy Transformation projects to provide flexibility in the trigger event, in order to accommodate possible changes to the regulatory framework in relation to transmission investment. However, we are not satisfied that a contingent project trigger which refers to a possible new method for initiating transmission investment, which may or may not come into effect after the date of this final decision, is appropriate.[85]

At this time, it is too early for us to be able to ascertain whether any such alternative method or approach would provide an appropriate trigger event, under the NER in its current form, having regard to the need for a trigger event to have specific characteristics set out in the NER.[86] We are not satisfied that ElectraNet's proposed trigger is reasonably specific, as the decision making criteria established or applicable to that decision have not yet been formulated.

We consider that it is preferable at this time for our final decision to reflect the transmission investment framework as it currently stands. In general, we consider that an economic assessment is necessary to support transmission investments given that customers bear the risk of inefficient investment. A transparent and thorough economic assessment of credible options provides a safeguard to customers that investment is efficient. Relevantly, we consider the requirement to undertake an economic analysis demonstrating the preferred option maximises positive net economic benefits (or is

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84 ElectraNet, *Response to AER information request 14 - Proposed contingent project trigger events, 15* March 2018.

85 NER, cl. 6A.8.1(b)(4)

86 NER, cl.6A.8.1(c)

required to address a reliability corrective action) to be a necessary condition for a contingent project trigger event. At this time the appropriate test is the RIT-T.

We therefore consider that, at this time, the successful completion of a RIT-T in the trigger event is appropriate as this reflects the existing regulatory arrangements for transmission planning and the economic assessment of transmission investment. The RIT was also recently endorsed in a review for the COAG Energy Council.[87]

AEMO in its recent consultation on the Integrated System Plan stated that:[88]

> Under the present regulatory arrangements, it is important that projects in the ISP are individually economically justifiable, so each project can deliver overall benefits to consumers and pass a RIT-T.

And:

> The ISP will aim to use high-level economic assessments to achieve a staged plan for regional transmission planners to follow. Under the current transmission planning framework, individual stages of the ISP will need to be justified through the RIT-T framework.

We agree with AEMO that each project should be economically justifiable and at this time the relevant economic assessment of transmission projects is the RIT-T.

In the event that policy makers amend the regulatory framework for transmission investment in the future, we consider (and would advocate) that any issues arising from the fact that the RIT-T is embedded in the regulatory framework should be addressed, as part of those amendments, through transitional mechanisms or consequential amendments to existing obligations where necessary, including in relation to contingent projects included in existing revenue determinations.

However, we recognise that in the event that regulatory arrangements change in the future, including the obligation for TNSPs to conduct a RIT-T, it may be appropriate to allow for these circumstances in the trigger events. We have therefore amended ElectraNet's proposed trigger events for the Eyre Peninsula Reinforcement, South Australian Energy Transformation, Upper North-East and Upper North West Line Reinforcement contingent projects to recognise that a RIT-T would no longer form part of the trigger event where the obligation to undertake a RIT-T in the NER is no longer applicable.

For the same reasons, we have accepted ElectraNet's proposed amendment for the Main Grid System Strength Support project trigger event. We recognise that for the Main Grid System Strength project, the AEMC's *Managing Power System Fault Levels* rule determination of 19 September 2017 provides for TNSPs to not apply the RIT-T to proposed expenditure where a fault level shortfall is declared in a region and the time

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87 COAG, *Review of the Regulatory Investment Test for Transmission*, 6 February 2017, p. 4.

88 AEMO, *Integrated System Plan Consultation*, December 2017, p. 51.

for making system strength services available is less than 18 months after the notice is given by AEMO.[89] We understand that these circumstances apply to this project, and therefore agree that ElectraNet's amended trigger events, which recognise that the RIT-T may not apply to the project, are reasonable and reflect the current NER requirements.

In respect to the Upper North-East and Upper North-West Reinforcement project triggers, we agree with ElectraNet that the project triggers should not preclude a reliability corrective action. The wording of the triggers in Table 6.2 is therefore aligned with the South Australian Energy Transformation project trigger that explicitly provides for preferred options which demonstrate positive net economic benefits and/or address a reliability corrective action. We consider this wording provides greater clarity than the term 'justified' in circumstances where the RIT-T applies. The Eyre Peninsula Reinforcement project triggers in Table 6.2 also include similar wording.

Impact of contingent projects on residential customer bills

The CCP submitted that they were concerned about the potential impact of ElectraNet's contingent projects on revenue forecasts and price impacts and modelling for these impacts across several regulatory periods would be a useful addition to our final decision.[90] The CCP provided some indicative analysis of how different levels of contingent project capex could increase ElectraNet's regulated asset base into the future.

As we expressed in our draft decision, there is significant uncertainty surrounding the scope, timing and cost of ElectraNet's contingent projects, such that providing a reasonable estimate of possible revenue and price impacts is difficult.[91] It is however important to note that where these investments are subject to the RIT-T and not driven by reliability corrective action, preferred investment options must be assessed as providing positive net economic benefits.

ElectraNet has calculated the indicative impact of the most advanced of its contingent projects (Eyre Peninsula Reinforcement and South Australian Energy Transformation) on the transmission component of the average annual residential electricity bill in South Australia in the 2018-23 regulatory control period.[92]

ElectraNet estimated that a full rebuild of the Eyre Peninsula line at an indicative cost of $300 million, with an additional capital cost of $220 million in the 2018-23 regulatory control period and partly offset by operational expenditure savings through avoided

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89 AEMC, *Rule Determination - National Electricity Amendment (Managing power system fault levels) Rule 2017*, 19 September 2017.

90 CCP Sub-Panel 9, *Submission to the AER*, February 2018, p. 5.

91 AER, *Draft decision, ElectraNet transmission determination 2018 to 2023: Attachment 6 - Capital expenditure*, October 2017, p. 6-28.

92 ElectraNet, *Revised revenue proposal 2018–23*, December 2017, p. 29.

generation support payments, would in net terms add less than $3 per annum to the transmission component of the average residential bill.[93]

ElectraNet also estimated the installation of synchronous condensers on the South Australian transmission network to provide system strength at an indicative cost of $80 million would be expected to add approximately $3 per annum to the transmission component of the average residential bill.[94]

[93] ElectraNet, *Revised revenue proposal 2018–23*, December 2017, p. 29.

[94] ElectraNet, *Revised revenue proposal 2018–23*, December 2017, p. 29.