# Explanatory statement

## Draft revisions of the application guidelines for the regulatory investment tests

July 2018

AUSTRALIAN ENERGY REGULATOR

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# Request for submissions

The Australian Energy Regulator (AER) invites stakeholders to review the proposed application guideline amendments described in this explanatory statement and provide written submissions. We also welcome submissions proposing amendments that we have not discussed in this explanatory statement.

We invite submissions by the close of business **7 September 2018**. We prefer stakeholders send submissions electronically to: RIT@aer.gov.au.

Alternatively, stakeholders can mail submissions to:

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We prefer all submissions be publicly available to facilitate an informed and transparent consultation process. We will therefore treat submissions as public documents unless otherwise requested.

We request parties wishing to submit confidential information to:

- clearly identify the information that is subject of the confidentiality claim; and
- provide a non-confidential version of the submission, in addition to a confidential one.

We will place all non-confidential submissions on our website at www.aer.gov.au. For further information regarding our use and disclosure of information provided to us, see the *ACCC/AER Information Policy*, June 2014 available on our website.

Please direct enquiries about this paper to RIT@aer.gov.au or to Lisa Beckmann on (02) 6243 1379.

# Shortened forms

| Shortened Form | Extended Form |
|---|---|
| ACCC | Australian Competition and Consumer Commission |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| APR | annual planning report |
| augex | augmentation expenditure |
| capex | capital expenditure |
| CCP | Consumer Challenge Panel |
| COAG EC | Council of Australian Governments Energy Council |
| DAPR | distribution annual planning report |
| distribution business | distribution network service provider |
| Finkel Review | the Commonwealth of Australia's independent review into the future security of the National Electricity Market |
| the Guarantee | National Energy Guarantee |
| HILP events | high impact, low probability events |
| ISP | integrated system plan |
| NEL | National Electricity Law |
| NEM | National Electricity Market |
| NEO | National Electricity Objective |
| NER | National Electricity Rules |
| network business | network service provider — either a distribution or transmission network service provider |
| preferred option | as defined in NER clause 5.16.1(b) and 5.17.1(b) |
| QCR | quarterly compliance report |
| RAB | regulatory asset base |

| | |
|---|---|
| repex | replacement expenditure |
| repex rule change | the replacement expenditure planning arrangements rule change |
| REZ | renewable energy zone |
| the RIT application guidelines | collectively, the application guidelines accompanying the regulatory investment test for distribution and transmission |
| RIT–D | regulatory investment test for distribution |
| RIT proponent | either a RIT–T proponent or a RIT–D proponent, as defined in chapter 5 of the NER |
| the RITs | collectively, the regulatory investment test for distribution and transmission |
| RIT–T | regulatory investment test for transmission |
| TAPR | transmission annual planning report |
| transmission business | transmission network service provider |
| VCR | value of customer reliability |

# Contents

# 1 Introduction

This explanatory statement provides the Australian Energy Regulator's (AER's) rationale for our proposed amendments to the regulatory investment tests for transmission (RIT–T) and distribution (RIT–D) application guidelines (the RIT application guidelines).

We are proposing amendments as part of our large-scale review of the RIT application guidelines. This review is not considering the appropriateness, effectiveness and efficiency of the RITs themselves, as the Council of Australian Governments Energy Council (COAG EC) considered this in early 2017.

During this review, we have been carefully considering and consulting on issues identified in, or arising through:

- The COAG EC's review of the RIT–T, which it finalised in February 2017.[1]
- The replacement expenditure (repex) planning arrangements rule change (repex rule change), finalised in July 2017.[2]
- Our regular compliance monitoring of RITs that have been undertaken by transmission and distribution network service providers (collectively, network businesses).
- This consultation process for improving the RIT application guidelines.
- Current developments, including the Australian Energy Market Operator's (AEMO's) inaugural integrated system plan (ISP), as well as the Australian Energy Market Commission's (AEMC's) reliability frameworks review and coordination of generation and transmission investment review.

## 1.1 What are the RITs?

A RIT is a cost–benefit analysis framework that network businesses must perform and consult on before making major investments in their networks to address an identified need. When undertaking RITs, network businesses must give due consideration to what options are out there, before identifying the best way to address needs on their networks — which the National Electricity Rules (NER) calls the 'preferred option'. The preferred option is the credible investment option which maximises the present value of the net economic benefit to all those who produce, consume and transport electricity in the relevant market.[3]

1 COAG EC, *RIT–T review*, February 2017.

2 AEMC, *Rule determination: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, July 2017.

3 Where, the relevant market is the NEM in clause 5.17.1(b), but in clause 5.16.1(b), is the 'market' as defined in chapter 10 as 'any of the markets or exchanges described in the Rules, for so long as the market or exchange is conducted by AEMO'.

## 1.2 The review process

We commenced reviewing the RIT application guidelines on 15 December 2017. Since then, we have incorporated the following input into our proposed amendments to the RIT application guidelines:

- Input we received from stakeholders that intended a public forum we held in Sydney on 14 March 2018. A summary note of this input is available on our website.[4]
- Input contained within the 26 written submissions we received on an issues paper we published on 20 February 2018. A summary of these submissions is in appendix A.

Table 1 provides indicative dates for the next steps in this consultation process.

### Table 1: Indicative project timeline

| Project step | Expected date |
|---|---|
| Stakeholder workshop | 15 August 2018 |
| Submissions close on draft amendments | 7 September 2018 |
| Final amendments to RIT application guidelines | November 2018 |

4 AER, *Summary note: Review of the RIT application guidelines public forum*, 14 March 2018, https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/review-of-the-application-guidelines-for-the-regulatory-investment-tests-for-transmission-and-distribution/initiation.

# 2 The AER's role

Among other roles, we are responsible for the economic regulation of electricity transmission and distribution services in the national electricity market (NEM). We are also responsible for ensuring compliance with and enforcement of the NER. As part of these responsibilities, we develop the RITs and have a compliance and monitoring role over the operation and application of the RITs. This includes:[5]

- Developing, publishing and amending the RITs and the RIT application guidelines.
- Determining whether other classes of market benefits or costs proposed by RIT proponents are relevant under the RITs.
- Determining if a person is an interested party for the purposes of disputing a RIT.
- Reviewing the cost thresholds for applying the RITs.
- Allowing network businesses extensions for publishing decisions under the RITs, as well as exemptions from reapplying the RITs following material changes in circumstances.
- Making determinations to settle RIT disputes. We can require a RIT proponent to amend its project assessment conclusions report or final project assessment report if the RIT proponent makes errors set out under NER clauses 5.16.5(g) and 5.17.5(g), respectively.
- Monitoring the application of the RITs, throughout and after the RIT process.

These responsibilities assist in the more transparent and consistent application of the RITs.

## 2.1 The AER and RIT compliance

The current mechanisms we utilise to monitor and promote compliance with the RITs are:

- Ongoing review of RITs to assess whether the network businesses undertaking them are meeting their obligations under the NER. Our monitoring will increase in the future given that RITs apply to a broader scope of projects following the repex rule change, and many network businesses have started or will soon start to apply them for the first time.[6]
- Where appropriate, we publish the findings of our monitoring to promote RIT compliance.[7] The purpose is to educate and inform network businesses, consumers and other stakeholders of these important regulatory obligations, which promotes energy market transparency and good industry practice. For instance, publishing the nature of

5 See NER clauses 5.15–17.

6 For example, before the repex rule change came into effect, ActewAGL, Ausgrid, AusNet Services, Energex, Essential Energy, and TasNetworks had never commenced a RIT–D. We are now starting to see some of these distribution businesses commence RIT–Ds (for example, Ausgrid).

7 We have published our compliance concerns with RITs and regulatory tests in the past. For example, see our assessment of TransGrid's regulatory test in AER, *Quarterly compliance report: October–December 2013*, February 2013, p. 24. Also see our assessment of Energex's regulatory tests in AER, *Quarterly compliance report: April–June 2011*, July 2011, p. 25.

our compliance concerns with a specific RIT project disseminates the learnings to the industry as whole rather than confining them to the network business in question.

- Dispute resolution processes under NER clauses 5.16.5 or 5.17.5.[8] We can direct a RIT proponent to amend its final report under the RIT if it has not correctly applied the RIT or has made a manifest error in its calculations. The application of robust and transparent processes by RIT proponents minimises the likelihood of disputes.
- Specifying in our regulatory determinations that capital expenditure (capex) funding for particular projects ('contingent projects') is contingent on defined triggers occurring. For transmission network service providers (transmission businesses), our practice has been to include as a trigger, an AER determination under NER clause 5.16.6 that the investment satisfies a RIT–T. When we use this mechanism, transmission businesses must satisfy us that its investment satisfies the requirements of a preferred option under a RIT–T before it can recover the capex associated with that project from customers.

Network businesses are also encouraged to undertake compliant RITs as the RITs play an important role in:

- Our decision whether to provide capex associated with a project in a network business' efficient regulatory asset base (RAB) value at the start of a regulatory period. A key consideration in determining prudency and efficiency of capex is whether an eligible project satisfied a RIT.[9] For example, we considered TransGrid's 'Powering Sydney's Future' RIT–T when setting TransGrid's forecast repex for its 2018 to 2020 regulatory control period.[10]
- Our ex-post capex reviews where we can reduce the RAB value we would have otherwise provided a network business at the start of the regulatory control period if it overspent its previous capex allowance.[11] This determination must be consistent with the capex incentive objective and guidelines, have regard to the capex factors, and only consider information and analysis that the network businesses could have reasonably considered or undertaken when it incurred the relevant capex.[12] Network businesses' previous RITs are a useful source of information and analysis for making this determination.

The COAG EC has flagged the potential to introduce civil penalty provisions for the RIT rules.[13] The AEMC has recommended to the COAG EC that several provisions be subject to

8 Registered Participants, the AEMC, Connection Applicants, Intending Participants, AEMO and interested parties can raise RIT–T disputes. These parties, as well as non-network providers, may raise a RIT–D dispute.

9 For instance, under the NER, we have regard to whether a project satisfied a RIT when determining the prudency and efficiency of the associated capex when we determine the efficient RAB value at the start of a regulatory period. See NER cl. S6.2.1(d)(2) and S6.2.2(3) for distribution, and NER cl. S6A.2.1(d)(2); S6A.2.2(3) for transmission. We also have regard to this when assessing forecast capex for a regulatory control period (see NER cl. 6.5.7(b)(4) for distribution, and NER cl. 6A.6.7(b)(4)(ii) for transmission).

10 See AER, Final decision: TransGrid transmission determination 2018 to 2020, Attachment 6 – Capital expenditure, May 2018, p. 5–7.

11 We have this power under NER cl. S6.2.2A(f) for distribution, and NER cl. S6A.2.2A(f) for transmission.

12 See NER cl. S6.2.2A(g)–(h) for distribution, and NER cl. S6A.2.2A(g)–(h) for transmission.

13 COAG EC, *RIT–T review*, February 2017, p. 5.

civil penalty provisions[14], given the importance of a robust planning framework to deliver efficient network services and an efficient competitive energy services market.[15] Specifically, it identified the following obligations:

- RIT proponents to apply the RIT to RIT projects, except in specific limited circumstances.[16]
- RIT–D proponents to consider all options that could reasonably be classified as credible options, without bias to energy source, technology, ownership, and whether it is a network or non-network option.[17]
- RIT–T proponents consider all options that could reasonably be classified as credible options, taking into account a number of factors (including energy source, technology, ownership, and whether it is a network or non-network option).[18]
- RIT proponents to consult with all Registered Participants, AEMO and interested parties when following the RIT procedures in the NER.[19]

14 AEMC, *Rule determination: National electricity amendment (contestability of energy services) rule 2017*, 12 December 2017, p. 130.

15 AEMC, *Rule determination: National electricity amendment (contestability of energy services) rule 2017*, 12 December 2017, p. 68.

16 NER cl. 5.16.3(a) for transmission and cl. 5.17.3(a) for distribution.

17 NER cl. 5.15.2(c).

18 NER cl. 5.15.2(b).

19 NER cl. 5.16.4(a) for transmission and cl. 5.17.4(a) for distribution.

# 3 Background

This section includes background information to assist stakeholders in understanding the current role of the RIT application guidelines in the operation of the RITs. It provides context around this review. It also explains projects and ongoing work that relates to this review.

## 3.1 Current RIT application guidelines

We published the application guidelines in June 2010 for the RIT–T and August 2013 for the RIT–D. We made minor amendments to both RIT application guidelines in September 2017 to incorporate changes necessary to accommodate the repex rule change.

Each of the RIT application guidelines provide guidance on:[20]

- The purpose of the RITs and projects subject to assessment.
- How an identified need should be expressed and what constitutes an identified need for the purposes of RIT assessments.
- Identifying reasonable scenarios for differing 'states of the world' to use in conducting a sensitivity analysis as part of the cost–benefit analysis.
- Identifying credible options, including the number and range of credible options. This explains how these options must address the identified need and be commercially and technically feasible.
- How to select a preferred option — that is, the credible option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the relevant market.
- Valuing costs, including the costs of complying with laws and regulations.
- How to value market benefits by deriving relevant states of the world, comparing these states and weighting benefits in each reasonable scenario. The RIT application guidelines also explain the different classes or categories of market benefits.
- The treatment of uncertainty and risk, including around market benefits and costs. This includes guidance on how an appropriate formulation of credible options and an appropriate selection of reasonable scenarios can enable the assessment to capture option values.
- Externalities, which should not be included in the RIT assessments in either the costs or benefits of credible options. Externalities include impacts on parties other than in their capacity as producers, consumers or transporters of electricity in the relevant market.
- How to pick a suitable modelling period for a RIT.

20 AER, *RIT–T application guidelines*, September 2017; AER, *RIT–D application guidelines*, September 2017.

- The process to follow in applying the RITs by describing the stakeholder consultation steps prescribed in the NER, as well as the process for reapplying a RIT following a material change in circumstances.
- The dispute resolution process. This includes guidance on the requirements and procedure for making a RIT dispute, along with how we will make a determination on the dispute.
- Calculating different classes of market benefits, using worked examples. This includes benefits associated with voluntary load curtailment, involuntary load shedding, costs to other parties, timing of expenditure, option value and energy/network losses.

The guidance differs between the RIT–T and RIT–D application guidelines in some areas, but we have tried to align the two RIT application guidelines more in this review. The two draft RIT application guidelines mainly differ in that the application guidelines for the:

- RIT–D provides specific guidance on screening for non-network options before publishing a determination and an exemption from publishing a non-network options report.[21] This guidance is only included in the RIT–D application guidelines as it is specific to the RIT–D requirements in the NER.
- RIT–D provides specific guidance on calculating market benefits (including worked examples) relating to load transfer capacity (when end users gain access to a back-up of power supply) and embedded generators.
- RIT–T provides additional guidance and worked examples on calculating market benefits that relate to effects on the wholesale market. These effects include changes in the variable operating costs of supplying electricity to load, ancillary services costs and competition benefits.
- RIT–T provides an additional worked example on an interconnector project with benefits that accrue across regions.
- RIT–T and RIT–D have different NER references and use different worked examples to reflect differences in the relevant NER clauses, as well as the differences between of distribution and transmission network investments.

## 3.2 Context of this review

When we made minor amendments to both RIT application guidelines in September 2017, we flagged that we would commence a larger-scale review of the RIT application guidelines to capture:

- Issues identified within the COAG EC's RIT–T review. While the review found the RIT–T remains the appropriate mechanism to ensure that new transmission infrastructure in the

21 Clause 5.17.4(c) of the NER states that a RIT–D proponent is not required to prepare a non-network options report if it determines, on reasonable grounds, that there will not be a non-network option that is a potential credible option or that forms a significant part of a potential credible option to address the identified need.

NEM is built in the long term interests of consumers, it suggested we review our RIT–T application guidelines.[22]

- Any issues arising from the repex rule change that are yet to be addressed, as this extends the RITs to cover network replacement or refurbishment decisions, as well network expenditure arising from asset de-rating decisions.[23]
- Other provisions in the RIT application guidelines that require amendment, including the areas where out compliance activities have identified a lack of clarity around how RIT proponents can best apply the RITs.

When amending the RIT application guidelines in response to these factors, we must also consider how other regulatory mechanisms complement the RITs in providing transparency and non-network engagement in network planning. Many of these complementary mechanisms have recently improved, or are currently improving. For instance:

- Network businesses must conduct annual planning reviews to identify the efficient level of investment required to deliver network services. Network businesses then publish 'annual planning reports' (APRs) — DAPRs for distribution and TAPRs for transmission. These reports provide public information on emerging network constraints, including potential options to alleviate these constraints. In making this information publicly available, APRs increase the opportunities for non-network businesses to propose options to meet those needs. Following the repex rule change in July 2017, APRs must now include network asset retirement and de-rating information.[24]
- The distribution network planning and expansion framework requires distribution network service providers (distribution businesses) to engage with non-network businesses by having a demand side engagement strategy and maintaining a demand side engagement register.[25] Also, our new demand management incentive scheme will incentivise distribution businesses to undertake a transparent market testing process and to manage demand as part of its preferred option when doing so is efficient.[26]
- In June 2017, we published a distribution DAPR template (or more formally, the system limitations template).[27] The DAPR template aims to improve the consistency and useability of DAPRs across the NEM, thereby making it easier for non-network businesses to identify and propose solutions to address identified network needs. We are also developing TAPR guidelines that should provide for a consistent format across

22 COAG EC, *RIT–T review*, 6 February 2017, p. 8. The recent Finkel Review echoed this recommendation in Commonwealth of Australia, *Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future*, June 2017, pp. 132–133.

23 AEMC, Rule *determination: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, July 2017, p. ii.

24 AEMC, *Rule determination: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, July 2017.

25 AEMC, *Rule determination: National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012*, October 2012, pp. i–iii.

26 AER, *Explanatory statement: Demand management incentive scheme — Electricity distribution network service providers*, December 2017.

27 AER, *Final decision: Distribution annual planning report template V1.0*, June 2017.

TAPRs.[28] We published a consultation paper in April to commence this process.[29] By achieving this, TAPR guidelines should support the consistent provision of information by transmission businesses across the NEM.

More detailed background information on the context of this review, including the work leading to this review and related projects, is provided in section two of our issues paper.[30]

28 NER clause 5.14B.1. This follows from AEMC, *Rule determination: National Electricity Amendment (Transmission Connection and Planning Arrangements) Rule 2017*, May 2017.

29 AER, *Consultation paper: Transmission annual planning report guideline*, April 2018.

30 AER, *Issues paper: Review of the application guidelines for the regulatory investment tests*, 20 February 2018.

# 4 The RITs in promoting the National Electricity Objective

Under the NER, the purpose of the RITs is to is to identify the credible option that maximises the present value of net economic benefit to all those who produce, consume and transport electricity in the relevant market (the preferred option).[31]

Our draft amendments to the RIT application guidelines frame this purpose in the context of the National Electricity Objective (NEO) to help RIT proponents apply the RITs more effectively. This is where the NEO is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity.[32]

Realising the purpose of the RITs means that, before investing in a large project to meet a need on the network, RIT proponents will consider all credible options to meet that need, before selecting the option that maximises the net economic benefit in the market. Through this, the RITs promote investment efficiency, which promotes the NEO by reducing the risk that consumers will pay for inefficient investments.

The draft RIT application guidelines add that by requiring RIT proponents to consider all credible options in identifying the most efficient investment, the RITs promote competitive neutrality. This benefits consumers directly from reducing the risk that they will pay for inefficient investments. This also encourages efficient outcomes in the longer-term by allowing the contestable market to develop without bearing unnecessary risks from their customers or competitors investing inefficiently. A well-functioning contestable market can provide better long-term outcomes for consumers, such as by putting downward pressure on input prices and encouraging innovation.

The draft RIT application guidelines also acknowledge that the RITs further promote investment efficiency by imposing transparency and accountability on major network investment decisions. This contributes to the NEO to the extent that other efficiency incentives under the regulatory regime are imperfect, or to the extent that the economic interests of RIT proponents differ from the NEM overall.

## Stakeholder views

Section three of our issues paper explained our intention to provide further guidance to help stakeholders understand how the RITs contribute to achieving the NEO.[33] It expressed our initial view that the RITs contribute to the NEO in two different, yet related ways. That is, by promoting competitive neutrality and investment efficiency.

31 See NER clauses 5.16.1(b); 5.17.1(b).
32 National Electricity Law, Section 7.
33 AER, *Issues Paper: Review of the application guidelines for the regulatory investment tests*, February 2018, pp. 18–20.

The draft RIT application guidelines retain this position. However, they integrate these concepts more to recognise that competitive neutrality is a means for achieving efficient investment outcomes, in the long-term interest of consumers.

Table 3 in appendix A provides a detailed summary of submissions in response to this topic, including our response to the views raised within them. Our draft RIT application guidelines reflect these submissions in the following ways:

- Many submissions agreed with the view in the issues paper that the RITs promote the NEO by promoting competitive neutrality and investment efficiency. Submissions from the Australian Energy Council (AEC), Consumer Challenge Panel 20 (CCP20), Energy Networks Australia (ENA), Energy Queensland and Jemena Electricity Networks (JEN) directly supported this view. SA Power Network's (SAPN's) and TransGrid's submissions effectively supported this view.
- Endeavour Energy, Origin Energy, Public Interest Advocacy Centre (PIAC) and Snowy Hydro suggested that the RITs promote the NEO by promoting investment efficiency. PIAC felt competitive neutrality was important, but was a means to achieving investment efficiency. The draft RIT application guidelines capture the nuance that PIAC has put forward.by stating that requiring RIT:[34]

  > *proponents to consider all credible options promotes competitive neutrality, which promotes selecting the most efficient investment. This also encourages efficient outcomes in the longer-term by allowing the contestable market to develop without bearing unnecessary risks arising from inefficient investment.*

- The AEC suggested that the RITs also contribute to the NEO by creating a framework that minimises investment risk for competitive investors, by minimising inefficient network investment. Delta Electricity (Delta) and its report from Marsden Jacob Associates (MJA) added a similar position on risk mitigation, but emphasised the importance of appropriate risk allocation between all parties, including consumers that bear the risk of funding inefficient network investments. The draft RIT application guidelines acknowledge that the RITs manage these risks in their capacity as instruments that promote investment efficiency.

Several submissions expressed views that touch on the barriers that the RITs face for promoting outcomes that contribute to the NEO. While some of our proposed amendments aim to address these barriers, some of these barriers may be difficult to address in this review, which is limited to improving the RIT application guidelines. For instance:

- GreenSync submitted that simplifying the ability for networks to contract with many non-network proponents would improve competitive neutrality outcomes. While section 4 of the RIT application guidelines provides improved guidance on non-network engagement, we do not consider the RIT application guidelines prevents networks from contracting with many non-network proponents. If there are barriers that we can address through this review or through other regulatory changes, we welcome detailed submissions on these barriers.

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34 AER, *Draft RIT–T application guidelines*, July 2018, p. 4; AER, *Draft RIT–D application guidelines*, July 2018, p. 5.

- SA Council of Social Services (SACOSS) submitted that network business' inherent incentive to favour network options counters investment efficiency and competitive neutrality outcomes. We consider that the RITs and the RIT application guidelines prevent network businesses from favouring network options. Our improved guidance on non-network engagement in section 4 of the RIT application guidelines should also contribute to preventing this outcome.
- Energy Queensland encouraged us to improve the RIT process itself to enhance consumer outcomes. CCP20 provided a range of views on this, including how the RITs should better: integrate with the complex environment, consider maturing customer expectations, require concise and effective information, encourage more effective engagement techniques. We have fed this input into our revisions to the stakeholder engagement process (section 4.1 of the updated RIT application guidelines).

We have not incorporated ENA's suggestion to add that a key factor for the RIT–T is to facilitate efficient regulated investment in line with the Integrated System Plan (ISP). To the extent that all investment proposed under the ISP is efficient, the role of the RITs in promoting investment efficiency would already capture this factor.

# 5 New guidance relating to the RIT process

The RIT application guidelines set out the process for and operation of the RITs, as prescribed in the NER. The issues paper discussed areas of this process that we intend to consider in this review.[35] These areas include:

- When we should apply some of the RIT exemptions in the NER. We sought submissions on our initial view that we would not require a RIT assessment where an external financial contribution results in the project falling below the cost threshold. We discuss our draft guidance on this area in section 5.1 below.
- Whether we should be providing guidance to support network businesses in engaging with consumers when applying a RIT. This also included whether we should be providing clearer guidance on and/or closer oversight of how distribution businesses engage with non-network businesses when publishing their non-network options report. We discuss our draft guidance on these areas in section 5.2.
- Whether we can or should be doing more to align the processes between the RIT–T and RIT–D in consulting on non-network options. We discuss our draft guidance on this area in section 5.3.
- Whether there should be clearer guidance on the information network businesses should provide when they cancel RIT assessments. We discuss our draft guidance on this area in section 5.4.

## 5.1 When do the RITs apply?

We have maintained the view expressed in our issues paper that a RIT is not required where the external financial contribution results in the project falling below the cost threshold.[36] In these circumstances, the external financial contribution means that, to the extent of that contribution, the project costs will not be recovered from consumers via regulated charges.

In forming this view, we carefully considered the RIT exemptions provided in the NER.[37] We also noted that this position was consistent with the COAG EC's view that:[38]

> *the RIT–T only applies to investments that will benefit from regulated revenues; that is, regulated revenues recovered from electricity consumers. It does not apply to investments that are funded from other sources, for example augmentations paid for by generators, merchant interconnectors, or investments funded by governments.*

Most submissions supported our initial view that a project would be exempt from the RITs where external funding meant it fell below the relevant RIT cost threshold (see table 4). Submissions from CCP20, ENA, Endeavour Energy, Energy Queensland, JEN and PIAC

35 AER, *Issues paper: Review of the application guidelines for the regulatory investment tests,* February 2018, pp. 21–29.
36 AER, *Issues Paper: Review of the application guidelines for the regulatory investment tests*, February 2018, pp. 22–24.
37 See clauses 5.16.3(a) and 5.17.3(a) of the NER.
38 COAG EC, *RIT–T review*, February 2017, 10.

agreed with our position in the issues paper, which we have also adopted in the draft RIT application guidelines.

Some of these stakeholders emphasised that this RIT exemption should apply, regardless of whether the external financial contribution came inside or outside of the NEM. We agree with this view. Distinguishing whether funding comes from inside or outside of the NEM is important when determining whether that contribution should offset the NEM-wide cost or count as a wealth transfer when applying a RIT. This distinction, however, is not important for determining whether a RIT should apply in the first instance.

Origin Energy submitted that while it agreed conceptually with our view, it questioned whether external contributions would cover both monetary and contributed assets. If the latter, Origin Energy queried how we would assess the contributed asset for maintenance cost purposes.

It is our view of NER clauses 5.16.3(a)(2) and 5.17.3(a)(2) that, if an external party committed to provide a contributed asset that would reduce the estimated capital cost of the most expensive potential credible option to address the identified need to below the relevant RIT cost threshold, then the project would become exempt from a RIT. Since the RIT cost thresholds only apply to capital costs, we would not count any opex associated with maintaining the asset (contributed or otherwise) when determining whether a RIT applies. On this basis, we are also unable to adopt Energy Queensland's suggestion to consider applying RITs to augmentation expenditure (augex) projects with high operating expenditure (opex), even where capex component falls below the threshold.

Bearing the above point in mind, we determine the level of opex that network businesses can recover via network charges through the regulatory determination process. Given this, increases in a network business' opex requirements from maintaining a contributed asset will not automatically allow that business to recover those costs from electricity consumers. Rather, we would subject these costs to an efficiency assessment and consider them within our base-step trend approach to setting opex allowances at the time we make our revenue determinations.[39]

It is worth noting that while the CCP20 agreed with our view, it submitted that it would still encourage RITs to occur in all circumstances since RITs seek an optimum outcome. Regarding this point, the NER require that where a RIT project receives a RIT exemption, with the exception of projects concerning negotiated network services, the network business must ensure, acting reasonably, that the investment required to address the identified need is planned and developed at the lowest cost over the life of the investment.[40] The RIT application guidelines already make this requirement explicit. In addition to specifying this NER requirement, the draft RIT application guidelines also highlight that we encourage network businesses to perform transparent efficiency assessments and procure solutions competitively where possible. We also understand that the rigour of such assessment should be commensurate with the magnitude and risks of the investment at hand.

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39 For information on our approach to setting expenditure, see AER, *Better regulation: Explanatory statement, Expenditure forecast assessment guideline*, November 2013.

40 NER, clause 5.16.3(d) for transmission and 5.17.3(d) for distribution.

Our position on this point does not align with all stakeholder views. For instance, the AEC and Delta submitted that external funds should not exempt a project from a RIT, if the overall project costs still exceed the RIT threshold. These submissions recognised that the RITs provide a valuable transparency measure to ensure there is efficient spending of external funding from non-competitive sources (such as taxes).

While we support transparency in investment decisions, we do not consider this suggestion aligns with the current wording in the NER, where the RIT cost thresholds apply to the capital costs for recovery through regulated network charges. Moreover, we consider the current NER wording is consistent with our regulatory functions provided by the NER and the National Electricity Law (NEL). These functions fundamentally concern promoting the NEO, where the long-term interest of electricity consumers is in their capacity as electricity consumers.

## 5.2 Consumer and non-network engagement in the RITs

Consultation with stakeholders is an integral part of the RITs and takes place throughout the RIT application process. We have proposed changes to the RIT application guidelines that further encourage RIT proponents to engage with stakeholders throughout the RIT application process.[41] Generally, rigorous consideration of both network and non-network options, irrespective of the source of such options, lends credibility to a RIT application and helps identify the preferred option. We have drafted the RIT application guidelines with this sentiment in mind.

CCP20 highlighted the importance of placing the RITs in the broader regulatory context that operationalises the NEM. They recommended consistent and early engagement with stakeholders throughout (and preceding) the RIT application process. Section 4.1 of the updated RIT–D application guidelines notes that early engagement facilitates the development of mutually beneficial performance-based arrangements to share benefits, risks and accountabilities in undertaking an investment. EQ, JEN and SACOSS echo CCP20's sentiments on early engagement, noting that opportunity analysis with demand maps or incentive programs may be useful instruments for facilitating early engagement with stakeholders. APRs may be another means of useful engagement between network businesses and either non-network businesses or consumers.

Our draft RIT application guidelines also reference our 'consumer engagement guideline for network service providers', which states our expectations of how network businesses should engage with their consumers—that is, their 'end users'.[42] They also reiterate the importance of early engagement with the consumers in processes, such as the APRs.

While not explicitly required under the NER, our draft RIT application guidelines recommend RIT proponents make the following documentation publicly available:

- Relevant documents that show detailed modelling, inputs and assumptions used for a RIT assessment.

41 See section 4.1 of the draft RIT application guidelines.

42 For these guidelines, see AER, *Better Regulation: Consumer Engagement Guideline for Network Service Providers*, 2013.

- Submissions received in response to the RIT–T and RIT–D reports, unless marked confidential.[43] In case of confidential submissions, a RIT proponent might explore making the redacted or non-controversial version public.

We consider our draft RIT application guidelines are broadly consistent with the majority of submissions we received on our issues paper. For instance:

- AusNet Services suggested that consumer engagement on RITs should form part of a network's business-as-usual (BAU) engagement processes. This falls within the scope of our consumer engagement guideline and there is no clear need for additional prescription for RITs. Citipower, Powercor and United Energy along with PIAC and CCP20 reiterated the importance of consumer engagement, including using the available guidance in our consumer engagement guideline. Accordingly, our draft RIT application guidelines refer to the available guidance in the consumer engagement guideline and reiterate the importance of effective consumer engagement throughout the process.
- Some stakeholders voiced concerns with the lack of specificity or detail in the RIT application guidelines with respect to consumer engagement. Since the RIT application guidelines give direction to a range of proponents, for the purpose of assessing a range of investment options, our guidance avoids being overly-prescriptive, so as not to limit the applicability of the RIT application guidelines.

However, we have sought to address a number of issues in the updated RIT application guidelines, including:

- An increased emphasis on early engagement with consumers and non-network businesses, for example through the APRs.
- An increased emphasis on the provision of transparent, user-friendly data provision (where this is feasible given firms' confidentiality claims).
- The importance of understanding broader consumer views, recognising that consumers that actively participate in consultation tend to benefit from the proposed projects disproportionately to the costs they will bear (due to postage stamp pricing).

## 5.3 Aligning the different RIT processes

In our Issues Paper, we asked whether we can or should be doing more to align the processes between the RIT–T and RIT–D in consulting on non-network options. We sought submissions on our initial view that the current RIT–T process would accommodate the consultation required for proponents to test the market effectively. We asked whether stakeholders would benefit from guidance to better align information provided in the project specification consultation report with that provided in the RIT–D's non-network options

43 Currently, RIT proponents sometimes publish submissions, but this is not required so can be inconsistent. For example, TransGrid did not publish the submissions it received on it Powering Sydney's Future RIT–T. As another example, for its Eyre Peninsula electricity supply options RIT–T, ElectraNet published the submissions it received on its Project Specification Consultation Report, but did not publish those it received on its Project Assessment Draft Report. See ElectraNet, RIT–T, https://www.electranet.com.au/what-we-do/network/regulatory-investment-test/, accessed 4 July 2018.

report. We also asked whether stakeholders would prefer us to request a rule change to better align non-network consultation under the RIT–T with the RIT–D requirements.

While a rule change is required to mirror the NER requirements for the RIT–D with those of RIT–T, project specification consultation reports should already include sufficient information to assist non-network businesses present alternative potential credible options for RIT–T proponents to consider. Notwithstanding this, we have suggested a few improvements to the current RIT application guidelines in ensuring that RIT proponents effectively test the market for competitive options — for both the RIT–T and RIT–D.

We note that PIAC suggested the need for additional guidance on screening for non-network options in the RIT–D. We consider there is already adequate guidance on screening for non-network options within the existing RIT application guidelines, which is under section 6 of the draft RIT–D application guidelines.

## 5.4 Cancellation of RIT assessments

Our draft RIT application guidelines articulate the need to keep stakeholders informed of any material change in circumstances that a RIT proponent becomes aware of during a RIT assessment. While not explicitly required under the NER, we expect RIT proponents to clearly set out reasons that lead to cancellation of a particular RIT–T assessment, if there has been a material change in circumstances. It is also a best industry practice to keep stakeholders informed as soon as the proponent becomes aware of the material change of circumstances around the identified need.

Stakeholders including the AEC, Endeavour Energy, Energy Queensland, and Origin Energy saw a benefit in us providing further guidance in the RIT application guidelines on cancelling a RIT process. Accordingly, section 4.5.1 of the draft RIT application guidelines gives additional guidance on cancelling RITs and encourages proponents to justify the cancellation of a RIT.

# 6 Issues relating to the application of the RITs

The RIT application guidelines provide guidance to assist RIT proponents in applying the RITs to meet their intended objectives, and thereby better contribute to the NEO. The issues paper discussed areas where the application of the RITs could benefit from newer guidance.[44] These areas, which we expand upon in the following order, include how RIT proponents:

- describe an identified need;
- estimate option value;
- conduct scenario analysis;
- apply the RITs to replacement projects following the repex rule change, and relatedly, how to select an appropriate base case for its cost–benefit analysis;
- account for external funding that they receive for RIT projects;
- treat high impact, low probability (HILP) events;
- account for the external policy environment;
- select the discount rate and treat risks; and
- select an appropriate value of customer reliability (VCR).

## 6.1 Identified need

The RIT application guidelines give conditions to be satisfied in the statement of an identified need. An identified need may consist of:

- Meeting any of the service standards linked to the technical requirements of schedule 5.1 of the NER, or in applicable regulatory instruments (reliability corrective action); and/or
- An increase in the sum of consumer and producer surplus in the NEM.

We consider that some existing RIT applications implicitly define the identified need, but do not clearly articulate it. Further, where RIT proponents explicitly state an identified need, they should not articulate it in a way that deliberately favours the development of credible options towards a particular solution. The draft RIT application guidelines reflect these considerations.

Our draft RIT application guidelines also incorporate the suggestions put forward by stakeholders in their submissions to our issues paper. For instance:

- AusNet Services (whose sentiments are echoed by ENA and Energy Queensland) noted that safety obligations may drive an identified need. The RIT application guidelines allow for safety considerations in the articulation of an identified need. For assistance, we have provided new examples in our draft RIT application guidelines (example 5 of the draft

44 AER, *Issues paper: Review of the application guidelines for the regulatory investment tests*, February 2018, pp. 30–9.

RIT–D application guidelines and example 4 of the draft RIT–T application guidelines). These new examples illustrate augex and repex projects where the identified need for a credible option is to meet a service standard linked to the technical requirements of schedule 5.1 or in applicable regulatory instruments.

- CCP20, CitiPower, Powercor, United Energy, Endeavour Energy and Origin Energy generally agreed with our initial view in the issues paper that an identified need should be the result of rigorous, broad research, and should not be biased towards any particular preferred credible option or stakeholder. PIAC stated that the identified need should be agnostic to solution types and providers, and should be cognisant of other potential network needs that might benefit from a common or coordinated solution. We agree with these views, which we clarify in section 3.1 of the draft RIT application guidelines by stating that:
    - For the RIT–T, proponents should consider all credible options, taking into account without bias: energy source, technology, ownership, the extent it enables electricity trading, whether it is a network option or a non-network option, whether it is intended to be regulated, whether it has a proponent, and any other reasonable factor.
    - For the RIT–D, NER clause 5.15.2(c) prescribes that a RIT–D proponent must consider all options that it could reasonably classify as credible options without bias as to energy source, technology, ownership, and whether it is a network option or a non-network option.

## 6.2 Option value

Our draft RIT application guidelines extend the guidance we previously provided on calculating option value by providing more clarity and updated examples.[45] The main improvements we made in this area included providing:

- Guidance to assist RIT proponents in developing credible options with option value (see section 3.2.3 of the draft RIT application guidelines).
- A clear discussion on option value under the section on uncertainty and risk (see section 3.9.3 of the draft RIT application guidelines).
- A clear in-depth worked example on option value, including the use of decision tree analysis at the end of appendix A of the draft RIT application guidelines.

We consider our draft RIT application guidelines are broadly consistent with the submissions we received on our issues paper. For instance:

- The draft RIT application guidelines provide more clarity and worked examples on how to calculate option value. This is consistent with submissions from the AEC, AEMO, CCP20, GreenSync, SACOSS and SAPN. Improving this guidance should help place

45 For the previous guidance on option value, see AER, RIT–*D application guidelines*, September 2017, pp. 29–30, 61; AER, *RIT–T application guidelines*, September 2017, pp. 34–38, 74.

greater emphasis on option value in RIT assessments. This greater emphasis is consistent with MJA's submission.

- CCP20 submitted that the RIT application guidelines should explicitly consider the potential for staging expenditure and provide a worked example combining non-network options with a network option to stage a project. Our worked example on 'flexibility and option value' in appendix A provides this guidance.
- ENA, Energy Queensland and SAPN suggested the RIT application guidelines acknowledge that option value might sometimes go beyond scenario analysis. Our draft RIT application guidelines now state that a RIT proponent 'should effectively capture option value as a class of market benefit if it preforms scenario analysis in accordance with these RIT application guidelines, whilst also exploring credible options that involve staging decisions that result in option value'. Our guidance also notes that RIT proponents can capture option value beyond what they have otherwise captured by probabilistically weighting credible options over reasonable scenarios, as long as it is not double-counted. For clarity, as JEN has suggested, RIT proponents need not separate option value from other costs and benefits where they have already captured option value by considering all credible options (including staged options) across a range of reasonable scenarios.

Some submissions suggested we use specific scenarios for worked examples on calculating option value.[46] We have chosen a general worked example for simplicity and broad applicability. We encourage stakeholders to review this guidance and suggest whether there is value in adding other worked examples.

Instead of providing additional guidance on calculating option value, CitiPower, Powercor and United Energy referenced our Demand Management Incentive Scheme in suggesting we should support RIT proponents in approximating option value where this analysis would otherwise be prohibitively costly.[47] We support RIT proponents capturing option value consistently with our draft RIT application guidelines because:

- Our draft RIT application guidelines do not increase the prescriptiveness of the previous guidance, but rather clarify the guidance through more worked examples, which the majority of submissions support.
- The Demand Management Incentive Scheme encourages approximations of option value because it applies to projects that fall below the RIT cost threshold. Where projects are sufficiently large to undergo a RIT, it is reasonable and beneficial to capture option value consistently with the draft RIT application guidelines.

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46 Our worked example on option value does not include repex, but AEMO and Endeavour Energy suggested we use scenarios that involve repex. Energy Queensland suggested we use a distribution business' worked example for guidance on how to balance the need for the lowest cost solution while still providing high option value. TransGrid suggested we provide an example of constructing a new transmission line at a higher voltage than is initially needed, when there is a high likelihood that they will eventually need capacity at the higher voltage. We note that our general example in appendix A of the draft RIT application guidelines entails considering building a full-scale network option, when this scale is unnecessary if demand turns out to be low.

47 For further information on the use of approximation methods in this context, see AER, *Explanatory statement: Demand management incentive scheme*, December 2017.

## 6.3 Scenario analysis

The draft RIT application guidelines maintain a similar level of prescription on developing scenarios (see section 3.8 of the draft RIT application guidelines). They continue to provide practical guidance on how RIT proponents can use sensitivity analysis to gauge what scenarios they should explore. They also provide the following principles to guide RIT proponents when developing reasonable scenarios:

- Be conscious of the current NEM transformations and reforms, including pricing reforms, demand response markets and innovative products allowing consumers to select their own price-reliability preference.
- Construct scenarios that are genuinely reasonable, in that they comprise of internally consistent parameters.
- Have regard to AEMO's work in developing modelling forecasts, scenarios and assumptions, such as the information provided in the ISP.

We consider this minor expansion of the previous RIT application guidelines strikes a good balance between different suggestions put forward in submissions, where:

- SAPN and JEN submitted it would be infeasible to prescribe what permutations of sensitivities and scenarios RIT proponents should undertake. Our proposed guidance is not overly prescriptive and continues to require that RIT proponents apply RITs to a level of analysis proportional to the scale and likely impact of each credible option.
- MJA suggested that an increasingly flexible and probabilistic approach to network planning with a larger spread of scenarios would improve insights into future risk. We maintain the current guidance around using sensitivity analysis to determine a reasonable range of scenarios that are likely to affect the analytical outcomes. This approach is consistent with MJA's preference if the future becomes more uncertain and/or estimated outcomes become more sensitive to inputs, as this will then produce a larger spread of scenarios.
- Delta, ENGIE and PIAC suggested several factors that RIT proponents must consider when forming reasonable scenarios (table 8 outlines those factors). We have included many of these suggested factors in our draft RIT application guidelines as recommended considerations, whilst still recognising that the appropriate number and choice of reasonable scenarios is likely to vary for each set of credible options under consideration. For instance, section 3.8.1 of the RIT application guidelines recommends that, when developing reasonable scenarios, RIT proponents:
    - Be conscious of the current NEM reforms and relevant policy developments. This is consistent with PIAC's submission that scenarios must be conscious of the current NEM transformations and reforms.
    - When conducting sensitivity analysis, explore changes in variables that are reasonably likely to affect the performance of credible options, such as technology costs, fuel costs, distributed generation and storage growth. This is consistent with Delta's submission that scenarios should cover these factors.

- Construct scenarios that are genuinely reasonable, in that they comprise of internally consistent parameters. This is consistent with ENGIE's critique that current scenario modelling uses assumptions that are not always internally consistent.

## 6.4 Replacement projects and forming a base case

Consistent with our position in the issues paper, our draft RIT application guidelines provide guidance on replacement projects and programs. This is also consistent with AEMC's final rule determination for the repex rule change, where it recommended we provide additional guidance around the repex projects and programs.[48] Additionally, we have updated the RIT application guidelines to provide more guidance on selecting the base case for both repex and augex projects/programs. In particular, our draft RIT application guidelines provide guidance on:

- How network businesses should treat asset replacement programs under the RITs, as section 2.2 of the draft RIT application guidelines clarifies.
- Estimating costs unique to repex projects. We have discussed this aspect of the repex projects under section 3.5 of the draft RIT application guidelines.
- Selection of the base case. Section 3.3 of the draft RIT application guidelines clearly articulates how RIT proponents should characterise the base case for repex and augex projects in order to meet the identified need.

For assessing options that entail a combination of augex and repex, we do not consider the RIT application guidelines require additional guidance. The AEMC's determination for the repex rule change already provided that a single threshold would apply to all network investment, whether augex or repex or a combination, except where it was driven by an urgent and unforeseen network need.[49] This simplifies the application of the threshold, as it is no longer necessary to consider whether the augmentation component of a mixed-purpose investment would cost more than the threshold.

Submissions to our issues paper indicated that stakeholders are in near-unanimous agreement about providing further guidance in our RIT application guidelines, on applying RITs to repex projects/programs and selecting the base case.

SAPN, for example, supported clarifying the base-case for repex is a credible BAU, noting that it is unclear whether we interpret BAU as running assets to failure. In SAPN's view, BAU should reflect a credible option. Our view is that the base case for repex projects should include credible BAU expenditure on maintenance to manage safety risk, environmental risk and equipment protection, but to the extent this expenditure meets legal obligations or is consistent with efficient industry practice.

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48 AEMC, *Rule determination: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, 18 July 2017.

49 AEMC, *Rule determination: Rule determination: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, 18 July 2017, pp. 63, 66.

This guidance should also help clarify how RIT–D proponents should select the base case in repex situations. For example:

- If the poor condition asset serves a reliability function, then the base case under a RIT–D could be any credible option that maintains conformance to the relevant standard. This may entail replacing a line upon failure, or replacing it when the probability of failure exceeds a stipulated service level.
- If the poor condition asset does not serve a reliability function, then the base case under a RIT–D should be as it is under the RIT–T, which is:[50]

> *a situation in which no option is implemented by, on behalf of the [transmission] network service provider.*

In these circumstances, the distribution business will need to calculate the market benefits of each credible option against a base case, in which:

- Existing assets are retained in place (if lawful to do so) and maintained and serviced (with opex) as required to remain in service as effectively as possible; and
- (Presumably) significant and rising levels of unserved energy will be expected to occur.

Energy Queensland also supported the guidance identified in the issues paper, particularly on assessing options that entail a combination of augex and repex. As discussed above, since the AEMC's determination for the repex rule change clarified there would be a single threshold to apply to all network investments, we do not provide further guidance in this area.

## 6.5 Accounting for external funds when applying RITs

A RIT assessment is required for projects that a government body or private party partially funds if the remaining costs recovered through prescribed transmission services or standard control services exceed the RIT cost threshold. We have included a section in the draft RIT application guidelines (section 3.11.1) that provides guidance and worked examples on how RIT proponents must account for external funds when applying RITs.

Consistent with our position in the issues paper, the draft RIT application guidelines specify that the RIT will treat external funds differently if they come from a:

- A registered participant under the NER or any other party in their capacity as a consumer, producer or transporter of electricity in the relevant market (a participant) [51]; or
- Any other party (other party).

Since the RIT is a market-wide cost–benefit analysis,[52] funds that move:

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50 AER, *Regulatory Investment Test for Transmission (RIT–T)*, June 2010.

51 The draft RIT application guidelines specify that this definition captures entities such as distributed energy resources suppliers and energy service companies.

52 The purpose of the RITs is to identify the credible option that maximises the present value of net economic benefit to all

- Between participants count as a wealth transfer and should not affect the calculation of the final net-benefit under the RIT. This implies that if a participant (for example, a generator) provided funding for a RIT project, we would treat this contribution as a wealth transfer and it would not affect the final net benefit calculated under the cost–benefit analysis.
- From an other party to a participant should count as a reduction in the costs of the option. This funding should consequently increase the final net benefit calculated under a RIT. This implies that if a government or government body provided funding for a RIT project, we would treat this contribution as a reduction in the costs of the option and this would increase the final net benefit calculated under the cost–benefit analysis.

While we received mixed submissions on this position, we hold the view that only our position is consistent with the NER in how it defines the scope of the market and requires the RITs be based on a cost benefit analysis. The range of views before us include[53]:

- CCP20, Endeavour Energy, JEN and PIAC supported our position. In support of this view:
    - PIAC recognised that if a participant (for example, a generator) funds a RIT project, the cost could still be recovered from electricity consumers via the wholesale component of electricity bills.
    - CCP20 also recognised that market participant contributions will ultimately be borne by electricity consumers, whereas government contributions will reduce costs to electricity consumers.
- ENA, ENGIE, Energy Queensland, GreenSync, SAPN, and CitiPower, Powercor and United Energy considered that both external funds from participants and other parties should increase the net benefit of a credible option. Notwithstanding that we consider this position is not consistent with the NER, we also do not share this view because:
    - As PIAC noted, if a generator funds a project, this cost could still be recovered from electricity consumers via the wholesale component of electricity.
    - We do not share ENGIE's view that all would benefit if a RIT project had negative net benefit but a generator that would benefit from the project funded some of the project costs so it would pass the RIT. The original RIT would have captured the project's market benefits that would accrue to electricity generators. If these generation benefits were too small to offset the cost of the original RIT, the generator would not be able to provide enough funding for the project to pass a RIT without being worse off itself.

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those who produce, consume and transport electricity in the relevant market ('the preferred option'). This is where 'relevant market' is the NEM for the purposes of the RIT–D. For the RIT–T, this is any of the markets or exchanges described in the NER, for so long as the market or exchange is conducted by AEMO. See NER chapter 10 and clauses 5.16.1(b) and 5.17.1(b).

53 NER clauses 5.16.1(b) and 5.17.1(c)(1) require the RITs be based on a cost–benefit analysis. NER clauses 5.16.1(b) and 5.17.1(b) require the scope of the market be all those who produce, consume and transport electricity in the 'market' (for the RIT–T) or the 'NEM' (for the RIT–D). For the purposes of the RIT–T, 'market' is, 'any of the markets or exchanges described in the Rules, for so long as the market or exchange is conducted by AEMO'.

- The AEC, Delta and SACOSS considered that no external funds should increase the net benefit of a credible option. We do not hold this view because:
    - While we agree with Delta that external funds are not a market benefit unless they increase the consumer and producer surplus under a range of scenarios, 'consumer and producer surplus' for the purposes of the RIT are limited to all those who produce, consume and transport electricity in the relevant market (that is, participants). Therefore, if an other party provides funding to a participant, this will increase consumer and producer surplus under a RIT.
    - As discussed above, consumer surplus in the context of the RITs concerns electricity consumers in their capacity as consumers of electricity. SACOSS submitted that funds external to the market would likely be government funds, which are also consumer funds. While we could characterise tax revenue as 'consumer funds', we could not characterise this as 'electricity consumption costs'. While SACOSS's logic is consistent with a society-wide cost–benefit analysis, it is not consistent with the RIT, which is a market-wide cost–benefit analysis.

## 6.6 Treatment of high impact, low probability events

Section 3.8.3 of the draft RIT application guidelines provides guidance on how RIT proponents can account for HILP events via its scenario analysis. We have added this guidance to the current RIT application guidelines after, in its RIT–T review, the COAG EC recommended our RIT–T application guidelines provide more guidance on how to better account for HILP events, such as the 'black system' event experienced in South Australia in 2016.[54]

The draft RIT application guidelines advise that RITs should capture HILP events by:

1. Including a reasonable scenario where the HILP event occurs.
2. Costing the impact of that HILP event occurring. In costing this event, we would expect the RIT proponent to include the market benefit category, changes in involuntary load shedding using a reasonable forecast of the value of electricity to customers. As a practice, the RIT proponent would use a measure of the VCR to reflect this value.
3. Weighting the economic impact of the event by a reasonable estimate of its probability of occurring.

By following this guidance, the cost–benefit analysis performed under the RIT should appropriately weight HILP events. Some submissions to our issues paper considered HILP events are typically underweighted in normal cost–benefit analysis. We do not share this view. Rather, if a RIT proponent has incorrectly weighted a HILP event, we consider it would be because they:

- Did not include a reasonable scenario (or scenarios) that featured that HILP event, or in including the HILP event, included a scenario that was unreasonable.

- Costed the impact of the HILP event using an estimate of VCR that did not reasonably reflect the value of electricity to the consumers affected by the event.
- Did not cost the impact of a market benefit (such as involuntary load shedding) relating to the HILP event when they should have, by forming an unreasonable opinion that it was not a material class of market benefit that required quantification.
- Weighted the economic impact of the event by a weighting that did not reflect its probability of occurring.

It is consistent with economic theory to weight reasonable scenarios by their probability of occurring in performing a cost-benefit analysis.[55] Choosing an alternative weighting would have no reasonable economic basis and would only serve to distort the outcome of the test. Some stakeholders, like SAPN, suggested we allow RIT proponents to weight HILP events by more than their probability of occurring. In contrast, other stakeholders, like the AEC, considered that allowing this would result in inaccurately weighting HILP events in a way that would give RIT proponents freedom to misrepresent the impact of such events.

If HILP events have historically been incorrectly captured, despite being included as a probabilistically weighted reasonable scenario, then this warrants RIT proponents considering whether they have correctly quantified the costs and benefits associated with these events. For instance, it might be that the economic costs of losing reliability are greater when there are HILP events. If there was a reasonable basis to form this view, such as sound supporting evidence, then a higher VCR metric should apply to such events.[56]

## 6.7 Environmental policy and the National Energy Guarantee

We have updated the previous RIT application guidelines on how to account for the evolving policy environment. For instance, in the draft RIT application guidelines, section:

- 3.5 updates our current guidance on treating costs associated with complying with laws and regulations, which includes environmental policies.
- 3.7.3 updates the guidance we previously only provided in the RIT–T application guidelines, and incorporates this into the RIT–D application guidelines as well. This guidance covers calculating market benefits that arise from cost savings in meeting mandated targets. This section provides guidance on accounting for the effects of existing environmental policies in the market benefits calculation, which assesses how removing network congestion lowers the total cost of delivering an environmental policy set by government.
- 3.8.1 updates our current guidance on accounting for environmental policy uncertainty by including reasonable scenarios in which possible environmental policies would exist that would result in costs and benefits from compliance with the relevant laws.

55 Environmental Assessment Institute, *Risk and uncertainty in CBA: Toolbox paper*, April 2006, p. 27.

56 See, for example: Oakley Greenwood, *Valuing reliability in the National Electricity Market*, 2011, p. 21. The evidence may not support the use of a higher VCR metric for extended outage durations.

Our updates to the previous guidance mainly reflect that the RIT application guidelines should:

- Be sufficiently broad to apply to new policies when they arise. This recognises that the design of the National Energy Guarantee (the Guarantee) is still in development.
- Be able to apply to a broader range of policies than environmental policies. This recognises that the Guarantee will aim to promote energy reliability, security and affordability, as well as setting an emissions target.[57]
- Acknowledge that when RIT proponents develop reasonable scenarios, among other things, they should be conscious of relevant policy developments, including those concerning carbon emissions, renewable energy, reliability, energy security and other factors. For example, if the introduction of the Guarantee could affect the ranking or sign of credible options (or just the ranking, if the identified need was for reliability corrective action), the RIT proponent should include it in a reasonable scenario.
- Be consistent between the RIT–T and RIT–D when it comes to calculating market benefits that arise from cost savings in meeting mandated targets.
- No longer reference the carbon pollution reduction scheme, which was a previous policy.

We consider this proposed approach broadly aligns with stakeholder submissions on our issues paper (see table 12 for more details).

## 6.8 Discount rate and treatment of risks

The draft RIT application guidelines supports a similar approach to what we encourage currently, which is also specified in the RITs themselves. This entails:

- Using a discount rate appropriate for the analysis of a private enterprise investment in the electricity sector and consistent with the cash flows that the RIT proponent is discounting.
- Using the regulated cost of capital as the lower bound for the discount rate.

This approach in the RITs is consistent with several stakeholder submissions. For instance:

- Using a discount rate appropriate for analysing a relevant private investment is consistent with AEC's and Delta's views that the discount rate should be similar to that used for commercial return calculations on an equity basis (that is, a market-based discount rate).
- Having the regulated cost of capital as the lower bound is consistent with CCP20's suggestion that private sector hurdle rates exceed their cost of capital.

In our view, the approach set out in the RITs provides RIT proponents with flexibility to account for the different levels of risk between projects when setting discount rates. Having regard to submissions to the issues paper, the draft RIT application guidelines provide the following advice on the use of flexibility:

57 See Energy Security Board, *Overview: Retailer reliability and emissions guarantee*, 7 November 2017.

- As a default, a RIT proponent should use the same discount rate for different credible options to address a given identified need. Rather than capturing the relative riskiness of different options through the discount rate, we prefer RIT proponents capture the relative risk factors of different credible options through its scenario analysis. This guidance has regard to submissions as:
    - AEC, Delta, Endeavour Energy, GreenSync, JEN, PIAC and SACOSS supported us providing this guidance after we flagged it in our issues paper.
    - SAPN and ENA supported our view that the default approach should be to adopt the same discount rate across all options. While they did not want further guidance or prescription in this area, they advised this was because network businesses' current practice is already consistent with this approach. In contrast, we see this guidance has value because there have been deviations from this practice the past. Moreover, this guidance is also suitably flexible as RIT proponents can deviate from the default if they have a good reason to do so.
- If a RIT proponent has a sound reason to depart from the above default by using a different discount rate for a particular credible option, it must clearly and transparently provide this reasoning, including providing supporting evidence. It must also show if or how this decision affects the ranking of credible options. This is consistent with submissions from PIAC and JEN, which noted that while networks should retain discretion to apply different discount rates, they should clearly justify this decision with supporting evidence.

We have also had regard to submissions in suggesting that we expect RIT proponents to explore:

- Whether as part of its scenario analysis, there is reason to include reasonable scenarios with different discount rates. If it includes a scenario with a lower than expected discount rate, it would also be reasonable to explore a scenario with a higher than expected discount rate (and the regulated cost of capital should be the lower bound).
- When sensitivity testing the outcome of its cost–benefit analysis, if applicable, illustrate 'boundary values' for discount rates at which the preferred option changes. The RIT–D proponent can then discuss the plausibility of those values and analyse this risk. This is consistent with CCP20's submission, which also advised that RIT proponents should analyse this risk from a consumer perspective.

## 6.9 Value of customer reliability

The VCR represents the economic harm to customers per MWh that arises from involuntary loss of supply of electricity. Selecting an appropriate VCR is becoming more important, particularly with an increase focus on system security.

The current RIT application guidelines provide limited guidance on selecting VCR. In section 3.4.3 of the draft RIT application guidelines, we have included new guidance that advises on:

- What factors RIT proponents should have regard to when considering what VCR to apply. This includes things like willingness to pay and factors that cause VCR to vary.

- How RIT proponents should use VCR estimates that are up-to-date, fit for purpose, based on a transparent methodology and published by an independent expert. It explains that currently the VCR that AEMO uses for network planning in Victoria should meet a number of these criteria (although may require adjustments to reflect differences in customer make-up). It also recognises that we will become responsible for calculating VCR from 31 December 2019, and our values should meet these criteria.
- How RIT proponents should consider reasonable scenarios with higher and lower than expected VCRs, with the expected VCR having basis in an accepted estimate, such as those produced by AEMO (or, in the future, by the AER). It also explains how RIT proponents should clearly justify using an expected VCR that differs from an accepted estimate.
- Sensitivity testing the outcome of its cost–benefit analysis for changes in VCR and, if applicable, illustrating 'boundary values' for VCRs at which the preferred option changes.

We have considered submissions to our issues paper in proposing these additions to the RIT application guidelines. For instance:

- CCP20, ENA and SAPN noted that VCR could be an appropriate measure to capture the effect of HILP events. Our new section on HILP events (section 3.8.3 of the draft RIT guidelines) cross-references our new guidance on VCR.
- CCP20 suggested using AEMO's VCR as a default in RIT applications, weighted by the proportions of customer types relevant to the project in that particular RIT with any excursion from AEMO values being well-justified. ENA and Energy Queensland echoed CCP20's thoughts, stating that proponents should use VCR estimates from a reputable source. This is consistent with our current guidance, which has also recognised that we will become responsible for publishing a VCR estimates from 31 December 2019.
- CCP20 submitted that VCR should be sensitivity tested. Similarly, JEN, ENA, Energy Queensland, SAPN, TransGrid and PIAC seek guidance on how VCR could be varied.

While we have provided additional guidance, we have intentionally taken more of principled rather than a prescriptive approach. We consider that the RIT application guidelines do not need to be overly prescriptive on the selection of an appropriate VCR, particularly as the VCR could vary project by project. Further, we consider that the RIT application guidelines and existing methodologies for calculating VCR are sufficient to monetise the economic risks associated with depriving unconnected customers of supply in the event of an outage. However, we also consider that stakeholders and network businesses would benefit from some commentary on the selection of appropriate VCR in the RIT application guidelines. To that end, the updated RIT application guidelines have been modified to emphasise the importance of using reliable, trusted VCR values from an independent source, and subjecting those values to scenario and sensitivity analysis throughout.

# 7 Integrated System Plan

AEMO has recently published its inaugural ISP. The ISP stems from a recommendation in the Finkel Review for more strategic planning of transmission infrastructure, including a new planning mechanism to facilitate the efficient development and connection of new renewable energy zones (REZs).[58]

While the ISP is yet to have formal status in the NER, it extends on the functions of the National Transmission Network Development Plan (NTNDP), which has formal status in the NER and the NEL[59] Since it extends on the functions of the NTNDP, we have permitted AEMO to integrate its 2017 NTNDP into its 2018 ISP.[60]

There is a reasonable possibility that the NER and NEL will be amended to give AEMO the formal function to annually publish an ISP. Given the current ISP extends on the current NTNDP, it is plausible that any future legislative change might integrate the NTNDP into the ISP.

Bearing this in mind, there may be further need to update the RIT application guidelines once the ISP framework is formalised. Nevertheless, the submissions in table 15 and table 16 highlight a strong preference for us to provide guidance on how to account for the ISP in the RITs. On this basis, where possible we have provided broader guidance that balances the need to be helpful with the need to be relevant under different plausible circumstances. For instance, where possible, we have provided guidance that can apply to material published by AEMO in developing the NTNDP, ISP or similar documents.[61]

We have extended the guidance that the RIT–T application guidelines already provide on using AEMO's NTNDP for developing assumptions to use in a RIT–T analysis. This guidance now covers how RIT proponents might use the information in AEMO's ISP to support their analysis in the RIT–T or RIT–D, by providing:

- Guidance on how to use material in the ISP as a starting point for developing assumptions (section 3.4.1). This clarifies that RIT proponents should use the ISP technical/input assumptions as the starting point for input assumptions. They should then evaluate these assumptions and update them as necessary. It is worth noting that if the ISP framework is formalised and requires full consultation on the ISP, we would likely have a stronger in-principle preference for RIT proponents to accept these assumptions as a default, and only depart if there is convincing evidence otherwise.
- An example of how a RIT–T proponent might apply a RIT–T analysis to a REZ, or how a RIT–D proponent might account for the preferred ISP network development path when

58 The Finkel Review recommended the introduction of 'Integrate Grid Plans', which AEMO is developing under the name, 'Integrated System Plan'. See Commonwealth of Australia, *Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future*, June 2017, p. 26.

59 NEL 49(2)(a); NER cl. 5.20.2.

60 AEMO, *Integrated System Plan Consultation*, December 2017, p. 3.

61 For example, see section 3.4.1 of the draft RIT application guidelines.

applying a RIT–D (see section 3.4 of the relevant draft RIT application guidelines). The example in the RIT–T application guidelines clarifies that a RIT proponent:

  - May use the ISP as a basis for articulating an identified need.
  - May use investments identified in the ISP to form the basis for a credible option to meet an identified need.
  - Should not, as a practice, treat the network development pathway as a series of projects that will occur across all reasonable scenarios.

- A statement that RIT proponents should have regard to the ISP when considering benefits that accrue to other regions in the NEM (section 3.7.3).
- A statement that RIT proponents should have regard to information in the ISP when developing reasonable scenarios (section 3.8.1).
- An example of how to apply the RIT–T to support a 'whole of network' perspective in planning (section 3.8.4 of the draft RIT–T application guidelines).
- A definition of a REZ in appendix B of the RIT application guidelines.

This guidance accounts for stakeholder submissions in that it:

- Recognises that RITs are fundamentally sound, and suggests how they should apply to REZs. This is consistent with submissions from AEC, CCP20, Delta, ENGIE, MJA, Origin Energy and SACOSS. Providing guidance on applying RITs to REZs is also consistent with submissions from AEMO and TEC.
- Suggests how RIT proponents should use the ISP as a key input into more detailed modelling, consistent with ENGIE's suggestion. In this way, the RITs provide results that are more granular than the ISP for stakeholders to review, consistent with submissions from Delta and MJA.
- Recommends using material that AEMO publishes, like the ISP, as a starting point for developing assumptions. This entails having regard to this material in developing modelling forecasts and scenarios. This also includes informing the RIT proponent's understanding of how different credible options affect the broader development of the NEM. This guidance is consistent with:
  - Submissions from AEMO, ENA, PIAC, Snowy Hydro, Spark Infrastructure and TransGrid, which suggested that the RITs take ISP assumptions, forecasts, inputs and range of scenarios as common assumptions.
  - Submissions from ENA, Spark Infrastructure and TransGrid, which requested there be flexibility to modify these assumptions if there is new information suggesting there has been a material change in circumstances.
  - ENGIE's submission that network businesses should use AEMO's ISP scenarios for RITs, whilst allowing for some local customisation.
  - Delta and MJA's submission that saw value in using ISP assumptions, particularly in developing scenarios, but considered this should not restrict RIT proponents from using other scenarios and assumptions.

- Suggests how RIT–T proponents can use information in the ISP to form an identified need, as TEC and Delta recommended.
- Provides guidance for how RIT proponents can use information in the ISP for the RIT–D, as well as the RIT–T. This recognises Energy Queensland's submission that changes to reflect the ISP should apply to both the RIT–T and RIT–D.

Some stakeholders made suggestions that we do not consider would promote the NEO and/or would require broader framework changes that are outside the scope of this review. As such, the draft RIT application guidelines do not:

- Suggest the scope of options considered in the ISP should satisfy 'all credible options' as a default (in contrast to Spark Infrastructure's submission). The ISP is a macro NEM-wide development plan, with a strong transmission and generation focus. For a RIT proponent to identify the credible option that maximises the net economic benefit across the NEM, it should explore the range of credible options set out in NER clause 5.15.2 and evaluate the credible options other parties propose to meet the identified need.
- Suggest RIT proponents include AEMO's recommended network development path as a base case. Rather, we suggest RIT proponents should continue to use the guidance in section 3.7.1 of the draft RIT application guidelines on how to treat committed, anticipated and modelled projects. This recognises that individual projects identified in AEMO's ISP will fall into one of these three categories. See table 15 in appendix A for more details.
- Support changes that would require changing the NER. These include, among other things, exempting 'ISP priority projects' from RITs or allowing these projects to bypass parts of the RIT–T. For our detailed response to these submissions, see table 16 of appendix A.

# 8 Variations not raised in the issues paper

In addition to the areas raised in the issues paper, we have proposed additional revisions to the RIT application guidelines. These include amendments:

- Suggested by SAPN and ENA to provide more guidance on adding new classes of market benefits.
- Suggested by AEMO to include transitional measures for RITs in progress following changes coming out of this review.
- Suggested by CCP20 to streamline the RIT–T and RIT–D application guidelines where possible.
- That we saw as beneficial when amending the RIT application guidelines, but were not necessarily identified in stakeholder submissions.

While table 2 summarises and explains the majority of these amendments, we also provide additional commentary on adding new classes of market in section 8.1.

### Table 2: Proposed revisions not raised in the issues paper

| Revision | Reason | Reference |
|---|---|---|
| Re-ordering sections of RIT–D application guidelines to mirror the structure used in the RIT–T | Reducing unnecessary inconsistency between the RIT application guidelines makes them more accessible to parties engaging with both RIT–Ts and RIT–Ds. We used the structure of the RIT–T application guidelines, as this appeared more intuitive to follow. This also responds to the CCP20's submission that the two separate RIT–T and RIT—D guidelines should be common where possible. | Throughout the RIT–D application guidelines |
| Deleted previous section relating to the 'commencement of the RIT–D' | We originally introduced this section to assist RIT–D proponents in transitioning away from the previous regulatory test, and was therefore no longer relevant. | Previously under section 1.2.2 of the RIT–D application guidelines |
| Revised that a RIT–T applies to a RIT–T project, instead of to a transmission investment | Changed to align with current NER wording, which the RIT–T application guidelines have not yet reflected. | Section 2.2 of the RIT–T application guidelines |
| Revised circumstances where RIT proponents do not need to apply RITs | Changed to align with new NER wording, such as the new reference to the 'protected event emergency frequency control scheme' | Section 2.2 of RIT application guidelines |
| Added that a RIT investment is | Updated for consistency with NER 5.17.3(c)(4) | Section 2.2.1 of |

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| only subject to the 'urgent and unforeseen circumstances' exemption if it is not a contingent project | and 5.16.3(b)(4). | the RIT application guidelines. |
| Including (RIT–T) and re-ordering (RIT–D) guidance on what constitutes an interested party for the purposes of disputing a RIT | The NER definition of 'interested party' was updated since we last amended the dispute resolution section of the RIT–T application guidelines. We moved this section of the RIT–D application guidelines into the 'dispute resolution' section as it relates specifically to that topic. | Section 5 of the RIT application guidelines |
| Changed references from transmission business to RIT–T proponent, where relevant | This reflects the NER wording, aligns with the RIT–D approach, and reflects that a RIT–T proponent may be a distribution business in the case of joint-planning | Throughout the RIT–T application guidelines |
| Added an explanation for how the new RIT application guidelines will apply to RITs that had been in progress during RIT application guideline reviews. | AEMO submitted there was a need to include a clear transitional measure. | Section 1.6 of the draft RIT application guidelines |

## 8.1 New classes of market benefits

We have incorporated ENA's and SAPN's suggestion to revise the guidance we provide for including additional classes of market benefits in the RITs. Section 3.6.2 of the draft RIT application guidelines provide some high-level guidance on what factors we will consider when determining whether to approve a new class of market benefit. For instance, we will consider whether the proposed benefit:

- should already be reflected in another market benefit class. If it is effectively a component of a pre-existing class of benefits, there is no need to introduce a new class. In these cases, the RIT–T proponent should consider whether it should perform an additional calculation to add this 'sub-component' into the market benefit class. If it has already captured this benefit indirectly, it should not perform a separate calculation that would result in double counting the value of the benefit.
- would accrue to a producer, consumer or transporter of electricity in the relevant market. If the class of benefit falls outside the scope of the market, the proponent should not include it in its cost–benefit analysis, as this would be an externality.
- will, due to its nature, occur as a wealth transfer and therefore not affect the net economic benefit that accrues to all those that produce, consume or transport electricity in the relevant market. For clarity, a wealth transfer is where a benefit to one party in the market is a direct cost to another party in the market, such that the total change in net benefits is zero.

We also advise that, to the extent a class of market benefit exists in the RIT–T but not the RIT–D, a RIT–D proponent should apply to include it in its RIT–D if it expects it to be relevant and material. Currently, this applies to the following classes of market benefits:

- changes in fuel consumption arising through different patterns of generation dispatch;
- changes in ancillary services costs; and
- competition benefits being net changes in market benefit arising from the impact of the credible option.

Similarly, if a market benefit class exists in the RIT–D but not the RIT–T, a RIT–T proponent should apply to include it in its RIT–T if it expects it to be relevant and material. Currently, this only applies to one class of market benefit — 'changes in load transfer capacity and the capacity of embedded generators to take up load'.

We have proposed this amendment because, while certain classes of market benefits are more likely occur with transmission rather than distribution investments (and vice versa), it is important to recognise that this is not always the case. For example, with the rise in distributed energy resources and the increased sophistication of demand management capabilities, we can expect that distribution investments will increasingly deliver benefits that we have traditionally seen at the transmission level. Moreover, encouraging distribution and transmission businesses to consider similar classes of market benefits should assist them in considering how they can more proactively work together and use joint planning to address particular identified needs.

The draft RIT application guidelines do not specify the additional classes of market benefits that the ENA and SAPN suggested in their submissions. For instance, they do not include:

- ENA's suggestion to acknowledge there are circumstances where avoided fuel costs are a benefit category, as this would often fall under the existing market benefit class, changes in fuel consumption arising through different patterns of generation dispatch.
- SAPN's suggestion to include 'the value of distribution generation for the broader NEM' and 'network and wholesale market access for customer groups' as benefit categories. Depending on the nature of these values, these would likely be captured by one or a combination of the following market benefit classes:
    - Changes in load transfer capacity and the capacity of embedded generators to take up load.
    - Changes in fuel consumption, ancillary services costs or competition benefits (noting that we now advise RIT–D proponents to apply to include classes of market benefits listed under RIT–T in their RIT–Ds assessments where these will be material).

# A Response to submissions on the issues paper

This is a summary of the key points raised in submissions on our issues paper for our review of the RIT application guidelines, as well as our response to these points. We received the following 26 submissions on our issues paper:

1. Aurora Energy
2. AusNet Services
3. Australian Energy Market Operator (AEMO)
4. Australian Energy Council (AEC)
5. CitiPower, Powercor, United Energy
6. Clean Energy Council (CEC)
7. Clean Energy Finance Corporation (CEFC)
8. Consumer Challenge Panel 20
9. Delta Electricity (Delta)
10. Endeavour Energy (Endeavour)
11. Energy Networks Australia (ENA)
12. Energy Queensland (EQ)
13. ENGIE
14. Essential Energy, whose position is generally in line with ENA's
15. GreenSync
16. Hydro Tasmania
17. Jemena Electricity Networks (JEN)
18. Marsden Jacob Associates (MJA), supporting submission for Delta
19. Origin Energy (Origin)
20. Public Interest Advocacy Centre (PIAC)
21. SA Council of Social Services (SACOSS)
22. SA Power Networks (SAPN)
23. Snowy Hydro
24. Spark Infrastructure
25. Total Environment Centre (TEC) , which in principle, supports submissions from TransGrid and PIAC
26. TransGrid, which expresses support for the views in ENA's submission

Table 3 summarises submissions relevant to question 1 of the issues paper, which asks: do you agree that the RITs promote the long-term interests of consumers by promoting competitive neutrality and investment efficiency? Are there any other factors we should consider?

For the majority of our proposed changes in response to this question, see section 2.1 of the draft RIT application guidelines on the purpose of the RITs.

### Table 3: Submissions on how the RITs promote the NEO

| Submission | Summary | Response |
|---|---|---|
| AEC, CCP, ENA, EQ, JEN | Generally agrees with the AER's view in the issues paper on the role of the RITs in promoting the NEO. A well-constructed RIT will promote competitive neutrality and investment efficiency.<br><br>Supports applying RITs to identify solutions that best promote customers' long-term interests, including via non-network options (NNOs). | We agree that the RITs promote the NEO by promoting competitive neutrality and investment efficiency. |
| SAPN, | Effective agreement with the issues | The draft RIT application guidelines |

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| TransGrid | paper.<br><br>SAPN supports applying RITs to identify solutions that best promote customers' long-term interests, including via NNOs.<br><br>TransGrid phrased the RITs as facilitating considering different investment options so that consumers' needs are met at the lowest cost over the long-term. | emphasise the role of the RITs in promoting the NEO, including by promoting competitive neutrality and investment efficiency. This drafting draws a connection between considering all credible options with the promotion of investment efficiency and the NEO. |
| Endeavour, PIAC, Snowy Hydro | Expressly agreed with the efficiency objective. Endeavour considered the revised RIT application guidelines should maintain promoting efficient investment decisions as the key objective. The RITs ensure the preferred option is determined on merit.<br><br>PIAC saw the RITs' role is to promote the NEO by ensuring efficiency of investment and, where relevant, services. Competitive neutrality can be important for achieving efficient investment, but is not the goal in of itself and should be considered alongside factors like robustness and optionality in identify the efficient option.<br><br>Snowy Hydro phrased this role as ensuring consumers only pay for transmission investments that are economically efficient and optimal overall for the NEM. | We agree that the RITs ultimately promote the NEO by promoting investment efficiency (from a NEM-wide perspective), and that competitive neutrality is a means to that end. The draft RIT application guidelines have highlighted this relationship, but still recognise that competitive neutrality is a significant value-add of the RITs. |
| AEC | Adds a third factor: creating a network investment framework that is predictable for competitive investors. If competitive investors have confidence that interconnector can only strand their generator if it is justified on clear net benefit grounds, then their risks can be minimised. | We agree with this view, but note that the third factor appears to be a direct consequence of promoting investment efficiency. As such, we have made this connected outcome explicit in our draft RIT application guidelines. |
| CCP20 | An important aspect of effective RIT application to meet the NEO is to integrate RITs with a complex environment. The RIT application guidelines should seek synergy with the wider regulatory, economic and social framework that encourage innovation and cost-effective solutions.<br><br>Other important aspects include considering maturing customer expectations by supporting changing community expectations regarding new technologies, network costs and sustainability. The RIT application guidelines should also require concise and effective information to pursue conciseness, simplicity and brevity. They should also encourage more creative and | The guidance provided in the draft RIT application guideline recognises and draws on external developments, such as the changes to annual planning reports and the development of the ISP (for example, see additional guidance under sections 3.4.1). If this guidance is insufficient, we encourage submissions on how we might improve this.<br><br>The draft RIT application guidelines encourage a number of these principles under section 4 on stakeholder engagement. We encourage input on if or how these could be improved further to encourage these principles as effectively as possible. |

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| | effective ways of engaging NNO providers as key customers of the RIT process. | |
| Delta and MJA | RITs, when properly applied, are the most appropriate way to ensure consumers bear appropriate risk levels on network investments. When transmission developments are undertaken outside the NER planning framework, this increases risk to the competitive market and increases the risk of stranded transmission assets. Signalling appropriate risk allocation between consumers, networks and market participants will reinforce proper incentives resulting in competitive neutrality and investment efficiency. | If the RITs promote investment efficiency, this promotes consumers bearing a more appropriate level of risk by reducing the risk that might fund stranded assets. Our draft RIT application guidelines highlight how these goals are related. We note that while appropriate risk allocation promotes the NEO, instruments that promote this are not limited to the RITs. For example, risks are also shared through incentive regulation and ex-post capex reviews. Of note, the AEMC is considering appropriate risk allocation mechanisms in its coordination of generation and transmission investment review. |
| ENA | Considers a further key factor is the role of the RIT–T in facilitating efficient regulated investment in line with the ISP. | To the extent the ISP promotes optimised investments based on system-wide costs and benefits, then the ENA's suggested role will be a sub-component of the RIT–T's role in promoting efficient decision making. |
| EQ | Also supports improving the RIT process to enhance consumer outcomes. | Our draft RIT application guidelines aim to do this. |
| GreenSync | While RITs intend to promote the NEO, competitive neutrality outcomes can be improved by simplifying the ability for networks to contract with many non-network proponents to resolve a network issue. | This submission appears to question the effectiveness of how RITs operate rather than their purpose. To the extent the RITs' objectives are undermined by difficulties in contracting, we welcome input on how we (via these RIT application guidelines or other mechanisms) can reduce these barriers. |
| Origin | The RIT should continue to be the primary mechanism through which large network investments are economically assessed. It is vital that an independent AER assessment continues so that uneconomic investments are not progressed. The RIT promotes the NEO by providing an independent evaluation of the costs and benefits of augmentations above the pricing threshold. | We agree, but note that the RITs do not necessarily provide an independent evaluation as the network businesses apply them (except for in Victoria, where AEMO has this role). We have a dispute resolution role and if a RIT project is a contingent project, in practice, its capex funding has been contingent on our approval that the business has successfully completed a RIT. Section 2 of this explanatory statement clarifies the AER's role in compliance monitoring and dispute resolution throughout the RIT application process. |
| SACOSS | The inherent incentive for network options counters the RIT's promotion of competitive neutrality and investment efficiency. | We have recently developed a demand management incentives scheme to help improve these incentives. The AEMC is also exploring these incentives in its 'electricity network economic regulatory framework review'. |

Table 4 summarises submissions relevant to question 2 of the issues paper, which asks: Do you agree that a RIT assessment is not required where the external financial contribution results in the project falling below the cost threshold?

### Table 4: Submissions on exemptions to the RITs

| Submission | Summary | Response |
|---|---|---|
| AEC, Delta | If the overall costs exceeds the threshold, a RIT should be required irrespective of the funding source. The RIT provides a valuable transparency measure to ensure that external funding from non-competitive sources (such as taxes) is spent efficiently. | Consistent with our regulatory jurisdiction, the RIT cost thresholds in the NER reflect the capital costs to be recovered through network charges. This is consistent with the NEO, where the long term interest of electricity consumers is in their capacity as electricity consumers, rather than as tax payers. |
| CCP20 | RITs should not be required where the external funding is applied to bring the net cost to customers below the test threshold. However, the RIT seeks an optimum outcome and we should encourage it in all circumstances. | See our response to ENA, Endeavour and EQ below. In principle, we also agree that it is good for major investment decisions to be supported by a robust, transparent cost-benefit analysis. Also see section 5.1 of this explanatory statement for clarification on when RITs apply. |
| ENA, Endeavour, EQ | Agrees with the exemption, but considers the same treatment of external contributions should apply regardless of that funding's source. That is, if external financial contributions lowered the costs network customers pay to below the relevant threshold, the project should be exempt. | We note this view and add that the discussion on wealth transfers concerns how external funding affects the net benefit during RIT application. Since the NER base whether a RIT applies in the first instance on project cost, we do not intend to distinguish between external funding sources on this point. |
| | EQ also suggests considering applying RITs to augex projects with high opex, even where the capex component falls below the threshold. | We could not require this under the current NER. However, a network business could still consult on a cost benefit analysis, similar to a RIT. |
| JEN, PIAC | Agrees with the proposed position on fully funded projects. | The draft RIT application guidelines capture the position proposed in the issues paper. |
| Origin | Agrees conceptually with the AER's view. In terms of external contributions, it asks whether this would cover both monetary and contributed assets. If the latter, Origin queries how the asset will be assessed for maintenance cost purposes. | Our view is that this would cover both types of contributions. The NER specify that the RIT exemption threshold is based only on capital costs. For clarity, if a RIT does apply, maintenance costs should be factored into the cash flows over the investment assessment period, even if the capital asset component was contributed. |

Table 5 summarises submissions relevant to questions 3–5 of the issues paper, which ask:

- How do you think we should amend the RIT application guidelines to better facilitate consumer engagement throughout the RIT application process?

- What specific guidance would help distribution businesses better use their NNOs reports and non-network screening requirements to engage with non-network businesses? Are there specific ways we should complement this guidance with greater oversight over distribution business' non-network engagement activities
- Do you agree that the RIT–T process accommodates the consultation required for proponents to effectively test the market, but would benefit from guidance to better align information provided in the project specification consultation report (PSCR) with that provided in the NNOs report under the RIT–D? Alternatively, would it be preferable to request a rule change for non-network consultation under the RIT–T to more closely mirror what the NER require for the RIT–D?

For the majority of our proposed changes in response to these questions, see section 4 of the draft RIT application guidelines on the stakeholder engagement process in applying the RITs.

### Table 5: Submissions on consumer and non-network engagement

| Submission | Summary | Response |
|---|---|---|
| | **Consumer engagement** | |
| AusNet Services, CitiPower, Powercor, United Energy, Endeavour, JEN, TransGrid | Consumer engagement falls within the scope of the AER's consumer engagement guideline and there is no clear need for additional prescription for RITs.<br><br>AusNet submitted that RITs should form part of a network's BAU engagement processes.<br><br>CitiPower, Powercor, United Energy submitted the AER could reference the consumer engagement guideline, but it is not necessary for the AER to provide prescriptive guidance on consumer engagement as their own stakeholders are best placed to advise them on this.<br><br>JEN adds that a flexible engagement approach will best facilitate improved outcomes.<br><br>TransGrid adds that transmission businesses already effectively consider NNOs. | We agree that network businesses should undertake stakeholder engagement as part of their normal operations. While his kind of engagement falls within the scope of our consumer engagement guideline, any encouragement towards stakeholder engagement given with respect to RIT applications is valuable for reminding proponents of these principles.<br><br>Our draft RIT application guidelines are not overly prescriptive and should support a flexible engagement approach. Any additional guidance represents principles that non-network stakeholders have proposed in their submissions. The draft RIT application guidelines reference our Consumer Engagement Guideline. |
| EQ, JEN, SACOSS | Agrees with additional guidance to support a consistent, best practice approach to customer engagement.<br><br>JEN sees benefits with engaging directly with aggregators and large customers that could provide NNOs.<br><br>EQ, in particular, would like more information on engagement type, purpose, cost, time and effort involved in the different options. EQ believes in | Section 4.1 of the draft RIT application guidelines is a new section providing principles-based guidance on consumer engagement. This guidance emphasises the value in engaging early and on an on-going basis. |

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| | earlier engagement, which may include opportunity analysis with demand maps or incentive programs, well before a formal RIT. | |
| TEC | TEC concurs with the CCP that consumer engagement in RITs has been inadequate. They have had a strong industry incumbent focus. At the very least, networks should, notify every consumer advocate it deals with at the outset of every RIT, and invite them to participate in informal consultations and make formal submissions. It should then be required to inform the AER of its engagement steps and how it has incorporated feedback into the RIT outcome. | Proponents are already required to consult with interested stakeholders, and to reflect the effect that this consultation has on the RIT application process through subsequent reports. |
| | **Various points on improving non-network engagement** | |
| AusNet Services | Recent regulatory changes have increased information available to non-network businesses, and AusNet Services frequently engages with these stakeholders. It would be helpful to understand the specific concerns before adding prescriptive requirements to the RIT application guidelines. | Our primary concern is that NNOs, where they exist and are feasible, are given equal attention to the network options considered by a proponent undertaking a RIT application, so that RIT proponents choose the option that maximises the net economic benefit across the market. Guidelines relating to non-network engagement are meant to be instructive, not prescriptive. |
| AEC and TEC | 1) AEC considered the RIT application guidelines should articulate that Requests for Proposal for NNOs must not contain more onerous provisions than those required of the network options. TEC requested the AER propose solutions under the current NER to overcome the limited use of NNOs as some networks have made it difficult for non-network proponents to satisfy their requirements, such as by requiring onerous availability guarantees.<br>2) AEC requested increased guidance on how to use the PSCR to test the market effectively. TEC requested clearer guidance on how networks can use their RIT engagement requirements to engage with non-network businesses. This could include being more proactive in maintaining a Register of Interested Parties and advertising emerging constraints on an annual basis before a RIT process commences. | 1) NER clause 5.15.2 requires RIT proponents consider credible options without bias to technology or ownership, among other factors. We will investigate any real or perceived attempt to place relatively onerous provisions on a non-network business. We echo the TEC's interest in seeing NNOs more rigorously considered and have added text to the guidelines encouraging stakeholder engagement (see section 4.1 of the draft RIT application guidelines).<br>2) NER clause 5.16.4(b) already prescribes what information a PSCR must include. Noting that we intend to take a principles-based approach to providing guidance on non-network engagement, we encourage specific suggestions on what guidance might improve how RIT–T proponents test the market. We are cautious of providing overly prescriptive guidance on stakeholder engagement and consider the RIT application guidelines are already accommodate |

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| | | this engagement. |
| AEMO | 1) Transparent and consistent information is important for service providers to be on a level planning field and the most efficient option is selected.<br>2) Supports guidance to reflect information RIT–T proponents seek and what is required in RIT consultation. AEMO has implemented this when running RIT–Ts through requests for expressions of interest.<br>3) Transparency can be limited when proponents are reluctant to provide information claimed as confidential, and the AER could provide guidance on resolving such issues. | 1) We agree with this view, noting that adequate information availability is a necessary condition for the choice of the most efficient option in a RIT application. It is worth noting that RIT proponents should devote as much effort as is practical in searching for and consolidating the relevant information when conducting a RIT application.<br>2) We support the view that proponents should give guidance to stakeholders as to the type of information required in submissions.<br>3) In the event that we are required to provide guidance on the validity of confidentiality claims made by stakeholders, it should be on a case-by-case basis. |
| CCP20 | 1) The RIT application guidelines should better integrate RITs with other parts of the regulatory framework. This applies for consumer engagement, as well as when engaging non-network businesses early to screen for NNOs.<br>2) The RIT application guidelines should support more creative ways of networks engaging with the market by seeking their involvement as agents for consumers and other market participants.<br>3) The RIT application guidelines should include the principles of strategic sourcing. These include engaging suppliers early and developing mutually beneficial performance-based arrangements to share benefits, risks and accountabilities.<br>4) The AER should reduce the complexity, volume and administrative overhead of the RITs and related processes. For example, use readily available public data, standard data formats, electronic data files, develop a 'pro forma' network support agreement.<br>5) The AER should test and overcome road blocks contributing to less effective RIT applications, particularly the low rate of addressing constraints with third party, novel NNOs. | 1) The RITs serve their own, independent purpose within the existing regulatory framework, and as such, they are separate from other regulatory instruments. The RIT application guidelines are clear with respect to the appropriate practices for undertaking consumer and non-network engagement.<br>2) While we support this view, the RIT application guidelines do not prohibit creative forms of engagement between RIT proponents and stakeholders.<br>3) Stakeholder engagement is encouraged early within, and at each stage of, the RIT application process. The RIT application guidelines are drafted with the intention of encouraging proponents to carefully consider the benefits, risks and accountabilities associated with an investment proposal.<br>4) While we recognise the benefit of consistency that comes with utilising reliable, trusted data sources, we also note that proponents should adjust inputs throughout their scenario and sensitivity analysis to suit the particular circumstances surrounding their RIT proposal. While this kind of analysis may incur a considerable administrative burden on the proponent, we consider it necessary |

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| | | in the interests of selecting the most efficient option for meeting the identified need.<br>5) The updated RIT application guidelines encourage proponents to make further efforts to address constraints with third party, novel NNOs. Section 3.2 details how we are promoting better RITs, including through our new demand management incentive scheme. Section 2.1 explains how we can use our compliance monitoring role and Quarterly Compliance Reports to encourage compliance with the NER and the RIT application guidelines. |
| Delta, MJA | A prerequisite for confidence and rigour in modelling is transparency, allowing stakeholders to assess the veracity of proposed economic benefits. This requires publishing assumptions, modelling details and modelling results down to at least the half-hourly market outcomes. This should also include any security assumptions and constraints used. | We agree that transparency in modelling of different scenarios within the RIT application process should be encouraged. However, we recognise the right for proponents to protect commercially sensitive information in their applications. |
| ENA | RIT stakeholder consultation forms part of networks' wider engagement strategies and the RIT application guidelines should not add guidance given AER consumer engagement guidelines exist. Networks also value targeting the engagement to fit the nature and complexity of different RIT investments. | We agree with this view, and recognise that there are unique circumstances associated with each individual RIT application. As such, the RIT application guidelines are not intended to be overly-prescriptive. |
| ENGIE | 1) The AER should prescribe an effective methodology to deal with the inherent bias in the current process and ensure that the option value of the NNO in the face of uncertainty is assessed effectively.<br>2) Recommends prescribing transmission businesses make public the submissions they receive. | 1) We are cautious of publishing overly prescriptive RIT application guidelines, and note we will assess whether RIT proponents have been compliant in adequately considering NNOs. The dispute process within the RIT application process provides opportunity for stakeholders to express their concerns where a proponent has not properly considered NNOs. Additionally, section 4.1 of the updated RIT application guidelines prescribes early engagement with stakeholders leading up to, and during, the RIT application process. Section 3.2 and 2.1 of this explanatory statement outline mechanisms for encouraging effective stakeholder engagement throughout the RIT application process.<br>2) While it is desirable from a |

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| | | transparency perspective that proponents publish the submissions they receive throughout the RIT application process, we recognise that commercially sensitive information may need to be kept confidential, such that publishing does not take place. |
| EQ | Greater visibility of NNOs would be helpful. The AER could publish an annual report of viable or emerging NNOs. To support NNO providers, networks should continue to provide clear information early on. Greater engagement through the NNO screening process will likely better cement a network's position for its NNO report. | We aim to encourage RIT proponents to engage more effectively with non-network businesses. We will attempt to intervene where a RIT proponent has not given due consideration to NNOs throughout the RIT application process, through the dispute resolution process, compliance monitoring (see section 2.1), and through the instruments described in section 3.2 of this explanatory statement. |
| GreenSync | Sees an opportunity for AER to provide guidance and share learnings around how NNOs are assessed across industry. The AER and networks should collaborate to improve the RIT—D structure, appreciating that it is currently inflexible to innovative NNOs. There have been multiple occasions where networks issue a NNOR without consulting their registered non-network businesses. Questions that a network can unilaterally declare a zero possibility for a non-network solution. | Where a RIT proponent has not properly considered their NNOs, we will generally assess their application for compliance and request that they reconsider NNOs. There are no prescriptions in the RIT application guidelines which prohibit a proponent from considering innovative or combined network options/NNOs. We seek to continually engage with networks to improve the RIT application guidelines. |
| Origin | Distribution networks should better use smart meters instead of installing separate assets to enable network support services. For example, smart meters should be used to enable load control services. | Smart meters should assist distribution businesses in implementing network support and load control services. From an affordability perspective, any rollout of smart meters should occur gradually. |
| PIAC | 1) The RIT application guidelines should ensure meaningful and effective engagement with non-network businesses and other stakeholders. Consumer engagement is better targeted at consumer representatives who can provide insight on willingness to pay and provide continuity between the revenue determination and RIT processes. This is not to say networks should not engage with local communities in a balanced way if there are affected by the proposed project and there is benefit in doing so.<br>2) The RIT application guidelines should ensure NNOs are treated fairly with respect to process and accurately reflect risk, value of optionality and | 1) The RIT application guidelines should already accommodate stakeholder engagement, including consumers and non-network businesses.<br>2) Proponents have a responsibility for rigorously assessing NNOs through the RIT application process. Where a proponent has not done so, we will follow up with the proponent and request that they further consider NNOs. There are no provisions within the RIT application guidelines which preclude the possibility of stand-alone power systems being used as the solution to an identified need. NER clauses 5.16.4 and 5.17.4 give details on publishing summaries of modelling methodologies and submissions to the RIT application |

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| | expenditure timing. Modelling, forecasts and assumptions which should be consistent, open and transparent to help promote effective exploration of NNOs. Recommends AER provide explicit guidance on considering stand-alone power systems as a NNO as these can be cost effective but face various barriers that reform processes are considering.<br>3) Supports more guidance on screening for NNOs in RIT–Ts. Following the repex rule change, there is also benefit in providing specific guidance on how to screen for NNOs for repex. There may be merit in better align the two RITs on screening for NNOs, but this must consider the effectiveness of the existing RIT–D requirements and whether the current distribution arrangements is suitable for transmission. | reports. While not explicitly required under the NER, we consider it best practice for RIT proponents to publish relevant documents that show detailed modelling, inputs and assumptions used for the RIT assessment, as well as submissions received in response to the RIT application, unless marked confidential.<br>3) Specific guidance has been added to the RIT application guidelines with respect to repex following AEMC's rule change. Efforts have been made to align the RIT–D and RIT–T application guidelines for consistency. We consider the current guidance on screening for NNOs is adequate within the existing RIT application guidelines. |
| CitiPower, Powercor, United Energy | While guidance is not required on this, there can be significant differences between a RIT and non-network proponents' understanding of risk mitigation costs. It will help for non-network businesses to engage with networks early to understand the risk profile of addressing the identified need. | We agree with this view, and encourage RIT proponents to engage with stakeholders on proposed investments as early in the planning process as is practical. |
| SAPN | 1) SAPN is open to hearing from stakeholders on how it can improve its RIT–D engagement, but no further guidance is warranted as this is already provided and additional engagement should be tailored to circumstances. Supports relying on the AER's current principles-based engagement guidelines.<br>2) It appears some consumer reps feel engagement is somewhat lacking in how contingent projects are detailed in the AER's determination process. | 1) We agree with this view.<br>2) The RIT application guidelines have been drafted with the intention of being applicable to a broad range of RIT applications. On the subject of contingent projects, consumer representatives are welcome to consult with RIT proponents and us where they feel it is necessary to do so. |
| EQ | 1) The current interpretation of the RIT rules may not support innovative approaches to engage with NNOs, including earlier engagement. EQ welcomes guidance on comparing network options with NNOs, particularly as NNOs are often submitted incrementally or are only available to solve an identified need.<br>2) Suggests aligning Ergon and Energex's 'registered participants' list | 1) We understand EQ's preferred approach entails procuring NNOs using a risk-based pricing methodology early on to manage its network before a constraint emerges. We do not see the RIT framework obstructing this approach, as the requirement to conduct a RIT occurs when the capital cost of meeting an identified need is above a certain threshold. If EQ's approach to NNOs |

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| | with the list AEMO maintains.<br>3) Suggests assessing how information already published supports the RIT to ensure efficiency. Suggests promoting earlier constraint identification, including improvements through demand maps and tools. | is successful, we understand that this would avoid the need to conduct a RIT in the first instance.<br>2) This alignment should not be an issue so long as the updated list accurately enumerates the stakeholders who take an interest in Ergon's/Energex's investments.<br>3) We encourage RIT proponents to consider already published information where relevant to a particular RIT application. The RIT application guidelines should currently facilitate early constraint identification. |
| TransGrid | TransGrid supports NNOs and considers the regulatory framework should incentivise transmission businesses to innovate and build up the market, similar to the innovation scheme for distribution businesses. | We encourage RIT proponents to give equal weight and consideration to network and NNOs throughout the RIT application process. The existing guidelines should provide sufficient opportunity for non-network businesses to present credible options to RIT proponents, and that where a proponent has not adequately NNOs, we will follow up with them.<br>Currently, there is not a demand management incentive scheme for transmission expenditure as this would require a rule change from AEMC. We expect that this will be explored further, given that it was a recommendation from the retail electricity pricing inquiry (REPI). |
| | **Aligning the RIT processes on non-network engagement** | |
| CCP20 | On aligning RIT processes, the two separate RIT–T and RIT–D application guidelines should be common where possible. | We agree with this view and, where the NER permit, we have proposed increased consistency between the updated RIT–D and RIT–T application guidelines. |
| ENA | There is no need to amend any test, guideline or rules to better align the RIT–T and RIT–D requirements to consult on NNOs. | We are making efforts to align the RIT–D and RIT–T application guidelines for consistency where possible. This does not change the consultation steps that the NER prescribe. |
| EQ, Origin | Does not object to better aligning the RIT–T and RIT–D on the NNOs report. These should include sufficient information to assist non-network businesses present credible options. | We are making efforts to align the RIT–D and RIT–T application guidelines for consistency. The current guidelines already articulate the requirements placed on non-network businesses when they choose to present credible options to a proponent. |
| SACOSS | SACOSS recommends requesting a rule change to align non-network consultation under the RIT–T with that under the RIT–D. Simply proposing more guidance is insufficiently prescriptive and does not address the inherent incentive for | We are of the view that the RIT–T already accommodates non-network consultation. If a proponent shows bias to invest in network options through the RIT application process, we will assess their application for compliance and request |

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| | transmission businesses to invest in network options. | that they reconsider NNOs more rigorously. |

Table 6 summarises submissions relevant to question 6 of the issues paper, which asks: What additional guidance should the RIT application guidelines provide regarding the information network businesses should publish when they cancel RIT assessments? For the majority of our proposed changes in response to this question, see section 4.5 of the draft RIT application guidelines on reapplication of the RIT.

### Table 6: Submissions on information when cancelling RITs

| Submission | Summary | Response |
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| AEC, Endeavour, EQ, Origin | The RIT application guidelines would benefit from information on cancelling a RIT process, as the current guidance is limited.<br><br>The AEC considered there is a need to provide reasons for cancelling a RIT. Origin felt that if a RIT was cancelled on uneconomic grounds, greater clarity as to why could inform future decision making<br><br>Endeavour, JEN and EQ added that additional reporting should not be too burdensome as cancellations should not cause consumer harm if the identified need no longer exists. JEN supports guidance on the level of detail a RIT proponent would need to provide | Section 4.5 of the updated RIT—D and RIT–T application guidelines gives guidance on cancellation of RITs and encourages proponents to justify the cancellation of a RIT. |
| AEC | Supports RITs being completed or cancelled, and not suspended part way with a view to recommence later. | The updated RIT application guidelines give provisions for the cancellation of a RIT application in cases where the identified need ceases to exist — that is, the RIT should only be cancelled when the proposed investment is no longer necessary. This is not to say that the insights gained from a cancelled RIT application cannot be utilised elsewhere, including in a future RIT application with a similar identified need to the cancelled RIT. |
| CCP20 | Should a RIT be cancelled, the investment made by potential providers of solutions should be recognised and opportunity provided/encouraged for the non-network businesses to 're-submit' their project to the network at some other time, or to third parties. | We are of the view that the provisions for stakeholder engagement within the RIT application guidelines are already accommodative in terms of allowing non-network businesses to re-submit their project to the network business at some other time, or to third parties. |
| ENA | No further guidance is required on information to publish following RIT cancellations. | Section 4.5 of the updated RIT—D and RIT–T application guidelines gives guidance on cancellation of RITs and encourages proponents to justify the cancellation of a RIT. |

Table 7 summarises submissions relevant to question 7 of the issues paper, which asks: Do you agree with our proposed approach of providing further guidance on how RIT proponents should describe an identified need? For the majority of our proposed changes in response to this question, see section 3.1 of the draft RIT application guidelines on 'identified need'.

### Table 7: Submissions on describing identified needs

| Submission | Summary | Response |
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| AEC | Agrees that a network augmentation should occur if there is a system-wide net benefit, not as a means of assisting a particular generation investment. Is concerned that identified needs will speculate on the future benefit, this should take into account the risk that such benefits will not materialise. | The identified need in a RIT proposal should not speculate as to the future benefit of network options. On the contrary, the identified need should remain neutral so as to allow for the consideration of a broad range of alternatives. Section 3.1 of the updated RIT application guidelines gives guidance on the definition of an identified need. |
| AusNet Services | The RIT application guidelines should recognise that safety obligations might drive an identified need. Where an asset in poor condition can no longer be operated and maintained to meet legislative safety obligations, increasing safety risk can be as material a driver of network investment as reliability risk, particularly where the replacement of assets has been efficiently deferred beyond the end of their originally foreseen life. | The RIT application guidelines allow for the possibility of investment driven by safety obligations. |
| CCP20 | The AER should have a 'hold point' early in the RIT process to ensure the identified need is framed from a consumer perspective and acknowledges the effect of risk to consumers on this objective. | We agree with this view. We will follow up with RIT proponents who do not clearly state an identified need in accordance with the provisions in section 3.1 of the RIT application guidelines.<br><br>We will check that the identified need is appropriately articulated after stage 1 of the RIT application process (project specification consultation report for RIT–T and draft project assessment report for RIT–D). If the identified need is poorly specified, we will request the NSP re-publish their draft/ consultation report, correcting the error, or we will report the compliance breach as part of our compliance monitoring role (see section 2.1 of this explanatory statement). |
| CitiPower, Powercor, United Energy | Additional guidance will not assist stakeholders in this aspect of applying RITs. Descriptions of identified needs to date have taken account of local and jurisdictional specifications the network. | Some RIT applications have not explicitly defined the identified need, or have stated the identified need in a way that favours the RIT proponent's preferred credible network option. Section 3.1 of the draft RIT application guidelines encourage proponents to clearly articulate an unbiased identified need. |

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| Delta , SACOSS | Supports the AER's proposed approach of providing further guidance on how to describe identified needs. | The approach we have taken in the draft RIT application guidelines is consistent with the approach proposed in our issues paper. |
| ENA (EQ supports this response) | The ENA is unclear on the precise approach the AER is proposing and does not require more guidance on identified needs. However, an example of how to frame a safety-related identified need would be useful (where the network consider repex is required to address an increasing safety risk). Also, projects identified in the ISP may provide more focus to identified needs. | The updated RIT application guidelines give an example of a repex project driven by compliance with safety requirements — see Example 5: Characterisation of the base case for meeting a service standard obligation in the RIT–D application guidelines and the same example, numbered Example 4, in the RIT–T application guidelines. Section 3.1 of the draft RIT application guidelines explain how to clearly articulate an identified need. We agree the ISP may be useful in defining identified needs, while noting that the scope of the ISP is broader than each individual RIT application, and as such, proponents should treat ISP material rigorously in their analysis of specific proposed investments. |
| Endeavour | It is important to afford networks some discretion to frame the identified need in a way that is meaningful to non-network providers, which Endeavour tried to do in its Marayong zone substation RIT–D. Endeavour would not like descriptions to become relatively homogenous and uninformative, as this would be of less value to prospective non-network businesses. Suggests maintain the current guidance that suggested RIT proponents may find it useful to explain the likely outcomes if no credible option were adopted. | We generally agree with this view. However, we have added greater detail to the RIT application guidelines (see Section 3.1 of the RIT application guidelines) in terms of clearly articulating an unbiased identified need. |
| JEN | Agrees with the AER. If a proposed option benefits a particular participant, it should be considered alongside all alternative options based on their net market benefit. Welcomes additional guidance and examples in line with the intent of the NER, especially to assist with applying RITs to replacement projects. | Section 3.1 of the updated RIT application guidelines gives further direction on clearly articulating an unbiased identified need. Owing to the AEMC's repex rule change, repex projects can be treated similarly to other RIT applications in terms of defining an identified need. The guidelines are already accommodative in this respect. |
| Origin | The identified need that focuses on a network reliability aspect must demonstrate how the proposed investment will prevent a breach of the Reliability Standards. There is a risk that network businesses claim reliability benefits where supporting evidence is minimal. These claims should be tested to determine if the reliability standards are to be breached. This provides a firm benchmark with which to assess if a network augmentation will help alleviate | We agree with this view and have made efforts to reflect these sentiments in the draft RIT application guidelines. |

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| | this issue as the least cost solution.<br><br>Claims of network reliability should be tested against the current program of work undertaken by the AEMC and AEMO to determine if network augmentation is the least cost solution. | |
| PIAC | The RIT application guidelines should ensure the identified need is well understood and defined in terms of consumer impact/the NEO. It should be agnostic to solution types and providers, and should be cognizant of other potential network needs that might benefit from a common/coordinated solution. Guidance should not be too prescriptive, supports principles and examples. | We agree with this view, and have attempted to reflect these sentiments in section 3.1 of the draft RIT application guidelines to ensure that identified needs are clearly articulated in an unbiased and agnostic fashion. |

Table 8 summarises submissions relevant to question 8 of the issues paper, which asks: Is there any specific guidance you would like us to provide in clarifying how RIT proponents should calculate option value, make forecasts and test different states of the world? Are there particular scenarios where a worked example would be helpful in providing this guidance?

### Table 8: Submissions on option value, forecasting, testing states of the world

| Submission | Summary | Response |
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| AEC, AEMO, CCP20, GreenSync, SACOSS, SAPN | Support more clarity and worked examples on how to calculate option value. | We have expanded our guidance to provide more clarity and worked examples on how to calculate option value. |
| AEC | Each scenario and weighting should have the same burden of proof as the core scenario, and should consider the case where the proposed upgrade does not deliver the physical benefits promised. | We expect that in performing scenario analysis in accordance with the draft (and current) RIT application guidelines, the market benefits of different credible options will differ across scenarios.<br><br>We advise the AEC to review the draft RIT application guidelines and suggest if and what additional guidance we should provide on specifying an appropriate 'burden of proof'. |
| AEC | Forecast consistency is important, and where available, proponents should be required to use recent, publicly available forecast supply and demand data. | The draft RIT application guidelines provide a new section on selecting reasonable inputs (see section 3.4), which supports using recent, publicly available data. |
| CCP20 | The RIT application guidelines should require proponents to consider the potential for staging expenditure and how to include this in the options analysed. A worked example involving combining NNOs with a network option to stage a | Our worked example on 'flexibility and option value' in appendix A provides guidance on staging. |

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| | project would be useful. | |
| CitiPower, Powercor, United Energy | Additional guidance will not assist stakeholders in this aspect of applying RITs. The RIT application guidelines should reflect the approach undertaken in the final Demand Management Incentive Scheme (DMIS) decision, which found it reasonable to approximate option value where the cost of doing a costlier analysis is unviable. | Since the RIT application guidelines already include guidance on option value, we appreciate the view that no additional guidance is necessary. We do not propose to extend the guidance or to increase its prescriptiveness, but rather clarify the guidance through use of more worked examples. It is worthwhile noting that the DMIS applies to projects that fall below the RIT cost threshold, and there is less need to rely on approximations for larger projects that are subject to RITs. |
| Delta | Suggests a different approach to valuing risk than maximising net market benefits by calculating an expected NPV over scenarios weighted on likelihood. This can include incorporating cost/benefit ratios and/or real option analysis in the assessment process. | The RITs are based on maximising expected NPV, consistent with their purpose in the NER to identify the credible option that maximises the present value of the net economic benefit in the market. Nevertheless, real option analysis should occur within this analysis, consistent with the guidance provided at the end of appendix A in the draft RIT application guidelines. |
| Delta, ENGIE, PIAC | Supports guidance to encourage RIT proponents to conduct robust scenario analysis.<br><br>PIAC submitted that scenarios must be conscious of the current NEM transformations and reforms, including pricing reforms, demand response markets, innovative products allowing consumers to select their own price-reliability preference.<br><br>Delta submitted these scenarios should cover different technology costs, fuel costs, distributed generation and storage growth.<br><br>ENGIE suggested standardising scenarios and exploring the full range of uncertainty. It considered current scenario modelling has limited scope, reflects current policies and government ambitions and uses assumptions that are not always internally consistent within a sensitivity/scenario. | We have included many of these as recommended considerations when selecting reasonable scenarios under section 3.8 of the draft RIT application guidelines.<br><br>We have not included this as a requirement because any RIT–T analysis must be proportionate to the scale and likely impact of each credible option and therefore the appropriate number and choice of reasonable scenarios is likely to vary for each set of credible options under consideration. |
| ENA (EQ supports this response), SAPN | Supports acknowledging that option value may sometimes go beyond scenario analysis. | Our draft RIT application guidelines now state that a RIT proponent 'should effectively capture option value as a class of market benefit if it performs scenario analysis in accordance with these application guidelines, whilst also exploring credible options that involve staging decisions that result in option value'. Our guidance also notes that the RITs allow proponents to capture option |

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| | | value beyond what they have otherwise captured by probabilistically weighting credible options over reasonable scenarios, as long as it is not double-counted. |
| ENA (EQ supports this response), SAPN, JEN | No further detail is required on how networks should develop scenarios. SAPN suggested we avoid prescribing how many permutations of sensitives should be undertaking as these cannot feasibly be determined ex-ante.<br><br>JEN noted that this guidance should remain flexible enough for a balanced analysis. While varying multiple sensitivity parameters at once may sometimes be valuable, it would add too much complexity and opaqueness to require this always. | The draft RIT application guidelines maintain the current level of detail on developing scenarios (see section 3.8 of the draft RIT application guidelines). They provides practical guidance on how RIT proponents can use sensitivity analysis to gauge what scenarios they should explore. The draft RIT application guidelines recognise it is infeasible to prescribe what permutations of sensitivities and scenarios RIT proponents should undertake. |
| ENGIE | Recommends prescribing a type of modelling methodology principles. Abridged modelling should only be allowed where benchmarking against time series modelling shows that they are fit for purpose. Recommends the scenario planning (or learning) process that Shell pioneered. | The draft RIT application guidelines provide modelling principles, the majority of which are under sections 3.7 to 3.9. While this guidance for the RIT–T is similar to what we already provide, we have expanded our RIT–D guidance to better align the two RIT application guidelines. |
| JEN | Welcomes more clarity on the level of assessment expected for these areas. The RIT application guidelines indicated that little more than appropriate consideration of credible options is required for option value, but the issues paper indicates broader concerns. Since option value is already captured in considering credible options, separating it from other costs and benefits would be impractical. If this is required, JEN would appreciate additional guidance on how to separate this value. | RIT proponents need not separate option value from other costs and benefits where they have already captured option value by considering all credible options (including staged options) across a range of reasonable scenarios |
| MJA | Transmission planning requires an increasingly flexible and probabilistic approach with a larger spread of scenarios. This would provide improved insights into future risks. | We agree an increasingly flexible and probabilistic approach to network planning with a larger spread of scenarios would improve insights into future risks. Since our non-prescriptive guidance for using sensitivity analysis to determine a reasonable range of scenarios is fit-for-purpose, if the future becomes more uncertain and estimated outcomes become more sensitive to inputs, this should produce a larger spread of scenarios |
| MJA | There will likely be increasing value on real options in transmission developments. The RIT–T framework already provides for this, but it may need | Clarifying and expanding our guidance on option value should help place a greater emphasis on option value in RIT assessments, thereby allowing its role to |

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| | to be strengthened. | be strengthened where appropriate. |
| PIAC | Supports developing a more consistent approach to the forecasts used in modelling. These should be consistent where possible (incumbent on the network to justify deviations) and transparent to promote effective engagement. AEMO has a role in developing modelling forecasts, scenarios and assumptions.<br><br>Sensitivity analysis should reflect the magnitude and uncertainty, and consistency requirements should not limit this. | The draft RIT application guidelines include a new section on 'selecting reasonable inputs' (section 3.4), that provides guidance on this. |
| PIAC | Supports conducting more robust scenario analysis. The scenarios must be conscious of the current NEM transformations and reforms, including pricing reforms, demand response markets, innovative products allowing consumers to select their own price-reliability preference. | We have included these as recommended consideration when selecting reasonable scenarios under section 3.8 of the draft RIT application guidelines. We have not included this as a requirement because any RIT–T analysis must be proportionate to the scale and likely impact of each credible option and therefore the appropriate number and choice of reasonable scenarios is likely to vary for each set of credible options under consideration. |
| TransGrid, Endeavour, EQ, AEMO | Provided specific suggested for worked examples on option value:<br><br>TransGrid: constructing a new transmission line at a higher voltage than is initially needed, when there is a high likelihood that the capacity at the higher voltage will ultimately be used.<br><br>Endeavour: refer to scenarios encountered in their reviews of previous RITs, for both augex and repex.<br><br>EQ: Supports a distributor's worked example for guidance on how to balance the need for the lowest cost solution while still providing high option value.<br><br>AEMO: examples on how to calculate option value for network options, NNO and repex projects. | We have chosen a general worked example for simplicity and broad applicability. We encourage stakeholders to review this guidance and suggest whether there is value in adding other worked examples.<br><br>Regarding TransGrid's suggestion, our general example in appendix A of the draft RIT application guidelines entails considering building a full-scale network option, when this scale is unnecessary if demand turns out to be low. |

Table 9 summarises submissions relevant to questions 9 and 15 of the issues paper, which asks:

- Would any guidance in addition to the areas listed in section 5.3 of this issues paper assist in the application of the RITs to repex projects? Is there particular guidance stakeholders would like to help understand how the RITs will apply to asset replacement programs?

- Should we revise the RIT–D application guidelines to clarify that a 'business-as-usual' (BAU) base case should be used for repex projects? Is there any other guidance the RIT application guidelines should provide on selecting an appropriate base case?

### Table 9: Submissions on repex and characterising the base case

| Submission | Summary | |
|---|---|---|
| CCP20, JEN | Agrees with providing guidance on the base case. | We have provided additional guidance on the base case in section 3.3 of the draft RIT application guidelines. |
| CCP20 | Supports guidance on applying risk versus cost methods, as repex tends to use the risk-based method. Guidance could include preferred sources of costs and probability of consequence values as this would likely improve consistency and transparency of RITs. | Section 3.3.1 of the draft RIT application guidelines gives guidance on repex projects. |
| CCP20 | The RIT cost thresholds should capture large replacement programs | Following the repex rule change, and updates to the RIT application guidelines, RIT cost thresholds should capture large replacement programs. |
| CitiPower, Powercor, United Energy, PIAC, SACOSS, TransGrid | Supports the AER's proposal to update the RIT application guidelines to clarify that the base case in RITs for repex is a credible BAU option, rather than an unrealistic option.<br>ENA suggested we add that this BAU expenditure is consistent with good industry practice to manage safety risk, environmental risk and equipment protection requirements. | We have maintained our view in the issues paper to use a BAU base case for repex projects unless, in the case of a RIT–D, a failure to replace (or implement a substitute for) the network element would violate applicable reliability standards. |
| CitiPower, Powercor, United Energy | The trigger point for the timing of the base case scenario would be when the monetised service costs exceed the replacement project costs. Otherwise, additional guidance will not assist stakeholders in applying RITs to repex. The NER already provide flexibly to not undertake a RIT for ongoing works, such as for geographically dispersed, high-volume, low cost replacement works (such as pole replacements). There may also be circumstances where the credible BAU option is to replace the asset prior to failure, and the RIT application guidelines should permit this flexibility. | We have adjusted the RIT application guidelines to reflect that the trigger point for the timing of the base case scenario would be when the monetised service costs exceed the replacement project costs (see section 3.3.1 of draft RIT application guidelines). |
| ENA | The RIT—D application guidelines already allow proponents to select an alternative option as the base case where 'run-to-failure' does not represent a credible BAU alternative. Suggests amending the RIT–T guidance to allow a BAU base case to be adopted, which may entail an alternative credible option being | We agree with this view and have updated the RIT application guidelines accordingly. |

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| | considered as the base case.<br><br>The RIT application guidelines do not require changes to distinguish projects and programs. | |
| Endeavour | It is warranted to clarify 'BAU' as the base case as 'do nothing' could imply failure to keep assets functional. | We agree with this view and have updated the RIT application guidelines accordingly. |
| Endeavour | Requests guidance on asset replacement scenarios. However, considers that networks should determine the timing of asset retirements (consistent with the AEMC's view not to have a network retirement reporting guideline). Welcomes working with industry to establish an agreed set of principles that are suitably high level. | We have adjusted the RIT application guidelines to reflect that the trigger point for the timing of the base case scenario would be when the monetised service costs exceed the replacement project costs (see section 3.3.1 of the draft RIT application guidelines). |
| EQ | The current NER insufficiently recognise the difference in repex and augex drivers. Supports the guidance identified in the issues paper, particularly on asset replacement programs and assessing options that entail a combination of augex and repex.<br><br>The level of NNO engagement for repex projects should be reviewed. Unlike with augex, RIT projects will rarely have the ability to defer or avoid repex (the ability here is mainly to share the scope of the project).<br><br>The base case should reflect credible, compliant BAU activities. These will vary between identified needs. | Given that repex programs are subject to a RIT (provided the expected cost of the project is greater than the relevant cost threshold) following the repex rule change, if a combined augex/repex project similarly exceeds the relevant cost threshold, it will still be subject to a RIT.<br><br>The updated RIT application guidelines should sufficiently encourage RIT proponents to engage with non-network businesses throughout the RIT application process.<br><br>We agree with the view that the base case should reflect credible, compliant BAU activities and have updated the RIT application guidelines accordingly (see section 3.3.1 of the draft RIT application guidelines). |
| Essential Energy | Requests the AER clarify when RITs should apply to replacement programs. It suggests the following text:<br><br>"Where a NSP [network business] intends replacing multiple low value assets (as described by clauses 5.12.2(c)(1B)(iv) and Schedule 5.8(b2)(4) of the NER4), at multiple geographically dispersed locations, the total annual value of these works is not considered to be addressing a single identified need and therefore is not considered to meet the trigger for assessment under the RIT.<br><br>"However, where there is potential that a non-network option is, or forms a significant part of, a potential credible option in relation to a specific program, the NSP [network business] shall consider the value of the specific program as a trigger for assessment under the | We consider Essential Energy's position is reasonable. It might also be valuable to incorporate SAPN's exception, where a RIT should apply if the identified need involves potentially replacing poles along the entire network line. |

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| | RIT."<br><br>The guidance the AER plans to provide on asset retirements around mid-2018 should be the start of the process to taking a value-based approach to investments, rather than an end-point. In moving industry to a risk-cost framework, we need a broader public consultation process. | |
| JEN | Welcomes guidance on all four items identified in section 5.3 of the issues paper. | We have updated the RIT application guidelines to assist in identifying the base case for repex projects (see section 3.3.1 of the draft RIT application guidelines). |
| PIAC | Additional guidance would be beneficial regarding the definition of replacement programs (as opposed to separate replacement or refurbishment projects) to help provide consistency between network businesses | We have updated the RIT application guidelines to assist in identifying the base case for repex projects (see section 3.3.1 of the draft RIT application guidelines). |
| SAPN | Supports clarifying the base-case for repex is a credible BAU option. It is unclear whether the AER interprets BAU as running assets to failure, and in SAPN's view, BAU should reflect a credible option. However, SAPN recommends the AER maintain the current flexibility for networks to define BAU as appropriate as the RIT application guidelines should not prejudge a network's particular asset management practices.<br><br>There is no apparent need for further guidance on how to apply a RIT–D to repex as the NER are clear. | We have updated the RIT application guidelines to assist in identifying the base case for repex projects (see section 3.3.1 of the draft RIT application guidelines). |
| SAPN, TransGrid | Ongoing work programs (such as pole replacement) would not be subject to a RIT<br><br>TransGrid noted the regulatory determination process assess this expenditure.<br><br>SAPN considered the repex rule change was clear on this point and the only exception might be where the identified need involves potentially replacing poles along an entire network line. | See response to Essential Energy's submission. |
| TransGrid | The RIT application guidelines should provide an example of a repex project driven by compliance with safety requirements | The draft RIT application guidelines give an example of a repex project driven by compliance with safety requirements — see Example 5 (4 in the RIT–T application guidelines): Characterisation of the base case for meeting a service standard obligation in the RIT–D application guidelines. |

Table 10 summarises submissions relevant to question 10 of the issues paper, which asks: Do you agree that the RIT is a market-wide cost–benefit analysis? Do you agree that, as a consequence of this, funds that move between parties within the market should not affect the final net-benefit, but funds that comes from outside the market to a party within the market should increase the final net benefit?

For the majority of our proposed changes in response to this question, see section 3.11 of the draft RIT application guidelines on 'externalities'.

### Table 10: Submissions on accounting for external funds

| Submission | Summary | Response |
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| AEC, Delta, SACOSS | Does not support including funding that comes from outside the market to a party within the market as a means to increase the final net benefit.<br><br>Delta noted that external funds are not a market benefit unless they increase the consumer and producer surplus under a range of scenarios.<br><br>Taking the view that funds external to the market would likely be government funds, SACOSS noted that this would distort the consumer risk equation, as government funds are also consumer funds. | We maintain the view in our issues paper that contributions from Other Parties increase a RIT project's net benefit.<br><br>'Consumer and producer surplus' for the purposes of the RIT are limited to all those who produce, consume and transport electricity in the relevant market (that is, Participants). Therefore, if an Other Party provides funding to a Participant, this will increase consumer and producer surplus under a RIT.<br><br>Based on the above logic, while we could characterise tax revenue as 'consumer funds', we could not characterise this as 'electricity consumption costs'. |
| CitiPower, ENA, ENGIE, EQ, GreenSync, Powercor, SAPN, United Energy | Financial contributions from both NEM or non-NEM third parties should be treated equally. What matters is the cost to consumers.<br><br>EQ also noted it would like to further understand the AER's proposal for how to consider fuds that are external to the NEM. SAPN noted that off–setting regulated investments by external contributions is distinct from the issue of considering second round interactions as to the transfer of surplus between consumers and producers, which rightly should be excluded from the RIT—D analysis.<br><br>ENGIE provided an example where a RIT–T project has a net cost, but it would have a net benefit to a generator that wants to fund a proportion of the project's costs to get the project across the line in a way that everyone would win. | We maintain the view in our issues paper that contributions from Other Parties increase a RIT project's net benefit. We also consider this is consistent with the view that what matters is the cost to consumers. As PIAC noted, if a generator funds a project, this cost could still be recovered from electricity consumers via the wholesale component of electricity.<br><br>We do not share ENGIE's view that it would be beneficial to all if a RIT project had negative net benefit but a generator that would benefit from the project funded some of the project costs so it would pass the RIT. The original RIT would have captured the project's market benefits that would accrue to electricity generators. If these generation benefits were too small to offset the cost of the original RIT, the generator would not be able to provide enough funding for the project to pass a RIT without being worse off itself. |
| CCP20, Endeavour, JEN, PIAC | Agrees with the AER's initial view. PIAC notes that if a generator funds a RIT project, the cost could still be recovered via the wholesale component of electricity | Our draft RIT application guidelines maintain this view. |

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| | bills.<br><br>CCP20 noted that market participant contributions will ultimately be borne by electricity consumers whereas government contributions will reduce costs to electricity consumers |

Table 11 summarises submissions relevant to question 11 of the issues paper, which asks: Do you agree that the scenario analysis currently prescribed in the RIT application guidelines can sufficiently capture the effects of high impact, low probability events and system security requirements? Do the RIT–T application guidelines require expanding to assist proponents in accounting for these events? Is there specific guidance you would like on this topic, or particular scenarios where a worked example would be helpful—and how (if at all) should this differ between the RIT–D and RIT–T application guidelines? For the majority of our proposed changes in response to this question, see section 3.8.3 of the draft RIT application guidelines.

### Table 11: Submissions on high impact, low probability (HILP) events

| Submission | Summary | Response |
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| AEC | Concerned that undue weight may be given to HILP events which will be extremely judgemental and difficult to challenge. This may create a large amount of subjective benefit for an expensive physical asset, when the same benefit more sensibly could have been achieved through an inexpensive control scheme.<br><br>The cost effective way to protect against catastrophic disruptions to a power system is through: 1) rules and controls that ensure the power system is operated within the secure technical envelope, supported by, 2) non-credible event control schemes, such as fast load or generation shedding. | The draft RIT application guidelines advise that RIT proponents should weight any reasonable scenario that features a HILP event by its probability of occurring. When we monitor RIT applications through our compliance activities, we will assess whether HILP metrics are reasonable and reflect the risk and consequences associated with certain events. |
| AEMO | The RIT application guidelines should clarify preferred ways of assessing investments to manage risks relating to HILP events and system security needs for greater consistency across the NEM. | The draft RIT application guidelines introduce guidance on this topic under section 3.8.1. |
| CCP20 | The existing RIT framework should accommodate HILP events through network security standards and appropriately selecting parameters. VCR should be the appropriate parameter to capture the impact of these events. A retrospective review of PSF may provide a case study as this consultation drew parallels to HILP events. | We agree with this view. The guidance we have provided in the draft RIT application guidelines should be consistent with this view. |
| Delta | HILP events are difficult to quantify and proponents should treat this net benefit | We agree with this view and consider our guidance on HILP events in the draft RIT |

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| | carefully. Transmission assets may not be the best solution to the consequences of HILP events. Incentives should allow NNOs compete to provide security services. | application guidelines supports carefully treating these events. Moreover, the RIT–T should promote competitive neutrality to assist NNOs compete to provide security services. |
| ENA, EQ, TransGrid | Suggests the AER note that while scenarios will generally be weighted by their probability of occurrence, the RITs provide the flexibility for networks to adopt different scenario weightings where justified. It should reflect this by amending clause (4)(a)(ii) of the RIT–T and (6)(a)(ii) of the RIT—D to remove the reference to the need to weight each scenario by its probability of occurring.<br><br>TransGrid felt networks should be able to adopt different scenario weightings where consultation indicates that consumers prefer avoiding HILP events. EQ noted that assumptions on likely weightings should be transparent through the RIT process. | We respond to this view in section 6.6 of this explanatory statement. |
| ENA | Suggests the AER state that VCR for HILP events may be a multiple of typical VCR values. | Sections 3.4.3 and 3.8.3 provide guidance on VCR and HILP events, respectively. If a RIT proponent has sound evidence that HILP events have a higher VCR associated with them, it should apply a VCR that corresponds to that evidence. |
| Origin | The AER should provide greater scrutiny of augmentations based on a HILP event occurring. AEMO has a greater ability to manage the NEM by classifying certain HILP events as 'protected events' to reduce the economic impact if an event did occur. Welcomes guidance on AEMO's new powers may affect RITs basing a network augmentation on a HILP event. | Our new guidance on HILP events in the draft RIT application guidelines should provide clarity to RIT proponents. This should also give us a sound basis to scrutinise any analysis applied to these events during our RIT compliance activities. |
| JEN, PIAC, SACOSS | Agrees HILP events can be captured in modelling by including an extreme scenario with low probability weighting. That is, by normal probabilistic assessment as set out in the current RIT application guidelines.<br><br>PIAC adds that the potential for HILP events also highlights the importance of capturing option value as it may be better to have a lower cost solution that retains the option to do more if the probability of a HILP event increases. | We agree with these views, which are consistent with our new guidance in the draft RIT application guidelines.<br><br>It is also worth noting that we have expanded the guidance we provide on option value (see section 6.2 of this explanatory statement). |
| SAPN | The RIT application guidelines do not require examples on how to consider extreme scenarios, as these are already expected to be weighted by their low | RIT proponents should weight any reasonable scenario that features a HILP event by its probability of occurring. If a RIT proponent has sound evidence that |

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| | probability of occurrence. Capturing the COAG EC's request might entail amending clause 6(a)(ii) of the RIT–D to give higher weights to HILP scenarios. They could also engage on whether it should amend the approach to VCR for wide-spread disruptions associated with HILP events (for example, by applying a VCR multiplier). | HILP events have a higher VCR associated with them, it should apply a VCR that corresponds to that evidence. See sections 3.4.3 and 3.8.3 of the draft RIT application guidelines for our guidance on VCR and HILP events, respectively |

Table 12 summarises submissions relevant to question 12 of the issues paper, which asks: What additional guidance would stakeholders find useful in regarding the treatment of environmental policies in the RIT–T application guidelines?

### Table 12: Submissions on environmental policies and the RITs

| Submission | Summary | Response |
|---|---|---|
| CCP20 | A RIT should be required for projects resulting from government or regulatory body specifications. | We agree. This is consistent with the current RIT application guidelines, as well as our proposed amendments. |
| CCP20, Delta, Snowy Hydro | If the NEG proceeds, it would support updated guidance how RIT–T assessments should treat this.<br>Delta would support guidance on how proponents can limit assessments to the NEG and emission reduction targets that the government implements | Since the design of the Guarantee is still underway, our draft RIT application guidelines only include broad guidance. If details later emerge, this may warrant us providing a more specific worked example at the end of this review. |
| Delta | Suggests proponents consider a range of future environmental goals to ensure their investment remains robust. | We have provided guidance on selecting reasonable scenarios. This includes having regard to policy developments and performing sensitivity analysis to see what factors are likely to affect the ranking or sign of credible options. |
| ENA, TransGrid | It would be useful to acknowledge that transmission businesses should adopt the ISP's environmental policy scenarios and approach to incorporating these in wholesale market modelling (unless the proponent can make the case that more up-to-date information makes these inappropriate). | Our draft RIT application guidelines advise that when developing reasonable scenarios, RIT proponents should consider, among other factors, policy developments and AEMO reports like the NTNDP, ISP or equivalent. |
| ENA | before NEG implementation, RIT–T wholesale market modelling should adopt a constraint on carbon emissions to be delivered by whatever policy is implemented. These should also adopt ISP assumptions on the VRET and QRET. | The draft RIT application guidelines maintain the previous advice, suggesting it is reasonable for RIT proponents to assume that the targets set by policy are met. |
| ENGIE | Recommends the base case only include current policies and not attempt to second-guess global responses and future state and federal government environmental policies. Proponents should test global responses and | We agree. This is consistent with the current RIT application guidelines, as well as our proposed amendments. |

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| | additional policy assumptions together with internally consistent technology assumption in the relevant stretching scenarios/futures. | |
| EQ | Changes to the RIT–T application guidelines on this area should also be relevant to the RIT–D. | We have proposed to align the two RIT application guidelines more, including with the guidance we provide on this area. |
| GreenSync | Consumer and investment choices, along with policy settings, are important inputs. While elements of the NEG are not confirmed, renewable energy will grow across all states and this should be accounted for. This position should also align with the ISP. | Our draft RIT application guidelines advise that when developing reasonable scenarios, RIT proponents should consider, among other factors, current NEM reforms, policy developments and AEMO reports like the NTNDP, ISP or equivalent. Section 3.4 of the draft RIT application guidelines advises proponents on using independent, reputable and up-to-date inputs and forecasts. |
| Snowy Hydro | Understands that the current RIT application guidelines already provide guidance on how to account for policy uncertainty. | We agree, and we have only proposed minor amendments to our previous guidance. |
| TransGrid | Suggests updating the references to the former carbon pollution reduction scheme. | We have removed our previous guidance on this scheme. The draft RIT application guidelines either provide general guidance or use the RET as a specific example. |

Table 13 summarises submissions relevant to question 13 of the issues paper, which asks: Do you support our proposal to expand our RIT application guidelines to specify that, as a default, RIT proponents should use the same discount rate when comparing different credible options? For the majority of our proposed changes in response to this question, see section 3.4.2 of the draft RIT application guidelines on 'discount rates'.

### Table 13: Submissions on discount rates

| Submission | Summary | Response |
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| AEC, Delta | The discount rate should be similar to the discount rated used for commercial return calculations on an equity basis (that is, a market-based discount rate) as this more closely reflects the risk profile of equity and consumers. The customer is exposed to the risk of the asset not being required, which parallels the risk that a market-based investor faces.<br>The RIT, being built on the NEO, should be using a discount rate equivalent to customers' total risk, which is not the regulated discount rate. | The RITs require RIT proponents use a discount rate appropriate for the analysis of a private enterprise investment in the electricity sector and consistent with the cash flows that the RIT proponent is discounting.<br>The draft RIT application guidelines do not suggest this should reflect the regulated rate of return. Rather, this guidance recognises that the RITs require the regulated cost of capital reflect the lower bound for the discount rate. |
| AEC, Delta, Endeavour, GreenSync, | Supports the AER's proposal.<br>PIAC and JEN noted that while networks should retain discretion to apply a | The draft RIT application guidelines largely reflect our proposal in the issues paper. |

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| JEN, PIAC, SACOSS | different discount rate, they should clearly justify this decision with supporting evidence. JEN also requested guidance on what evidence the AER would require. | Since unusual circumstances would justify RIT proponents applying different discount rates to different credible options, it is difficult to provide guidance on this. Theoretically, a project-specific cost of capital might apply where specific investors bear the risk of one particular credible option, and those investors require a higher real rate of return for participating.[62] |
| CCP20 | Large expenditure in the short term for large benefits that may only accrue many years needs to be effectively compared to smaller investment with more certain, shorter term benefits. The flexibility to apply discount rates reflecting project specific uncertainties over future cash flows from a consumer perspective is important for optimising expenditure to manage risks | Rather than capturing the relative riskiness of different options through the discount rate, we prefer RIT proponents capture the relative risk factors of different credible options through scenario analysis. If future market benefits of projects are uncertain, probability-weighting scenarios should capture these risks. |
| CCP20 | RBA analysis supports a view that private sector firms assess capital investments using hurdle rates well in excess of their cost of capital. | We consider this is broadly consistent with the RITs, which require using the regulated cost of capital as the lower bound. |
| CCP20 | The range of discount rates tested must reflect uncertainties of specific projects and the risk appetite of consumers.<br><br>RIT proponents should illustrate 'boundary values' for discount rates at which the preferred option changes. The proponent can then discuss the plausibility of that value and analyse this risk from a consumer perspective | The draft RIT application guidelines advise that we expect RIT proponents to explore sensitivity testing and discuss the risks of meeting the boundary values for the discount rate. |
| ENA, SAPN | Supports the AER's view that the default approach should be to adopt the same discount rate across all options, this is the current practice. As such, there is no need to provide further guidance or prescription on this area. | The draft RIT application guidelines provide guidance on our 'default approach', but this guidance is suitably non-prescriptive. Moreover, this guidance has value because there have previously been deviations from our preferred 'default approach'. |
| EQ | Supports a consistent approach to assigning a discount rate and commentary on where rates might differ, particularly where investments have different risks due to different timeframes.<br><br>It is unclear that the regulated cost of capital as the lower bound tests a full range of scenarios. | Where investments have different timeframes, the discount rate should appropriately account for the opportunity cost of capital, with no project-specific adjustments required.<br><br>In addition to including the regulated cost of capital as the lower bound, we encourage RIT proponents to explore reasonable scenarios with other discount rates. We also encourage RIT proponents to perform sensitivity analysis and identify boundary values where the preferred |

62 Commonwealth of Australia, Handbook of cost benefit analysis, sections 5.1-5.2, January 2006, pp.64-65.

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| | | option changes (boundaries may not represent plausible values, and the lower bound may be below the regulated cost of capital,). |

Table 14 summarises submissions relevant to question 14 of the issues paper, which asks: what kind of additional guidance, if any, would you like the RIT application guidelines to provide on selecting an appropriate VCR? For the majority of our proposed changes in response to this question, see section 3.4.3 of the draft RIT application guidelines on 'value of customer reliability'.

### Table 14: Submissions on VCR

| Submission | Summary | Response |
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| AEC | Prefers recent, publicly available data be referenced, to the extent possible. It is worth noting that the Reliability Panel determined that regional VCR reduces with the length of supply interruptions. | We agree that reliable, independent sources should be used for retrieving VCR metrics, which can then be modified to reflect the unique circumstances associated with a particular RIT application. Any adjustment to VCR, including one that reflects an increased length of supply interruption, should be justified by the RIT proponent in their RIT application. |
| AEMO | Requests guidance on selecting VCR for the focus of future resilience to indicate the economic threshold level for reinforcing the power system against risk. | Sections 3.4.3 and 3.8.3 of the draft RIT application guidelines provide guidance on VCR and HILP events, respectively. |
| CCP20 | The AER should reflect on submissions to Power Sydney's Future (PSF), where VCR was controversial. AEMO VCR values should be the default, weighted by the proportions customer types relevant to the project with any excursion well-justified. VCR used should be 'capped' by how consumers might respond if the value was 'offered' to the market (referencing Darryl Biggar's analysis for PSF).<br><br>VCR should be sensitivity tested. RIT proponents should illustrate the 'boundary values' for VCR at which the preferred option would change. The proponent can then discuss the plausibility of this VCR value and consider this in the analysis of risk from a consumer perspective. | We have reflected on PSF when advising that RIT proponents base VCR on an independent and broadly accepted source (such as AEMO or us in the future), with appropriate adjustments (such as weighing to reflect customer type). We also advise that any excursion from reliable, independent VCR metrics should be well justified. We agree that VCR metrics should be sensitivity tested and have adjusted the RIT application guidelines accordingly.<br><br>We agree and have incorporated this suggestion into the draft RIT application guidelines. |
| Delta | VCR higher than the market price cap creates investment distortion between generation, demand response and transmission. The AER should revisit VCR to harmonise signals given the value of reliability for transmission and | We have included new guidance on estimating VCR in section 3.4.3 of the draft RIT application guidelines. This highlights that we will likely be responsible for estimating VCR in the future, and will then take such theoretical |

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| | competitive market participants. | and methodological considerations into account. |
| ENA supported by EQ | Supports the AER's position that RIT proponents should use VCR estimates from a reputable source and the RIT application guidelines need not be overly prescriptive. | We concur with this view on using a reputable source, but we also consider it is best for this source to be independent. We have expanded our guidance on selecting VCR, but we have taken a principles-based approach, rather than one that is overly prescriptive. |
| Endeavour | VCR differs between unconnected and connected customers. Since the current RIT application guidelines do not provide guidance for greenfield development situations, Endeavour adopts the same VCR regardless of the project driver. Endeavour welcomes guidance on monetising the economic risks associated with deriving unconnected customers of supply.<br>VCR should reflect the full value customers place on being connected to the NEM. As transformation accelerators, there will be a greater divergence between the VCR and the true value of grid connections. | Currently, we are satisfied with Endeavour's current approach of using the same VCR for greenfield and brownfield customers. If Endeavour finds evidence that these customer types (as with any customer type) value reliability at different levels, then this can inform the VCR they use. As with other customer types, Endeavour should use an independent and well-accepted VCR metric, and then weight this by customer type.<br>If current VCR metrics are not reflecting the full value of grid connections, nor an appropriate distinction between brownfield and greenfield customers, then we expect to explore this further if we become responsible for developing a new VCR methodology. |
| JEN | While guidance on VCR is already sufficient and should not be too prescriptive, it might benefit stakeholders to have more guidance on how VCR could be varied. | We have expanded our guidance on selecting VCR, but we have taken a principles-based approach, rather than one that is overly prescriptive. |
| GreenSync, Origin | It would be beneficial to utilise one VCR indicator across RIT assessments to prevent networks from varying the method to suit its drivers. Recommends the use of the NEM wide study undertaken by AEMO.<br>Origin noted that AEMO's study should be periodically updated to better reflect consumer sentiment. | We agree that reliable, independent VCR benchmarks such as those offered by AEMO are useful for encouraging consistency across RIT applications. We are also cautious of writing overly prescriptive guidelines and as such, have given proponents the freedom to modify the VCR metric as long as the modification is well-justified. |
| PIAC | Agrees and supports more guidance. VCR could vary by a number of factors and the AER should develop a separate guideline on applying VCR that includes its use in RITs. This is subject to a rule change proposal that PIAC is currently developing. | We have expanded our guidance in the draft RIT application guidelines on selecting VCR for the RITs. If we have a future role in publishing VCR, we will transparently develop and consult on our methodology. |
| SACOSS | Additional guidance is important, as it relates to what constitutes a reputable | We agree that more guidance on calculating VCR is useful, so we have included this in the draft RIT application |

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| | source. | guidelines. |
| SAPN | It is also worth considering if a VCR could be developed to apply specifically to HILP events. | The updated RIT application guidelines reflect this sentiment. |
| ENA, EQ, SAPN, TransGrid | Agrees it is worth noting that VCR could vary between projects and should reflect factors including: outage length, width of affected area, and customer type. | Our draft RIT application guidelines have noted this. |

Table 15 summarises submissions relevant to question 16 of the issues paper, which asks: Given AEMO is currently developing the Integrated System Plan (ISP), what additional guidance would stakeholders find useful in the RIT–T application guidelines with respect to the ISP? For the majority of our proposed changes in response to this question, see section 3.4.1 of the draft RIT application guidelines.

### Table 15: Submissions on the ISP

| Submission | Summary | Response |
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| AEC, CCP20, Delta, ENGIE, MJA, Origin SACOSS | The RITs are fundamentally sound and should apply to REZs and other strategic development ideas. Identifying a project in the ISP should not trigger a RIT–T exemption.<br><br>The AEC noted that the ISP should be limited to AEMO recommending transmission networks consider certain extensions of a national character that are likely to pass the RIT–T.<br><br>Delta and MJA considered the RIT–T should complement the ISP by providing rigour, transparency and currency, with modelling that has consulted on assumptions and granular results for stakeholders to critically review. Similarly, ENGIE considered the ISP would be a key input into more detailed RIT modelling.<br><br>ENGIE suggested ISP modelling lacks the details to assess each element of transmission augmentations effectively. It is also beyond the scope of the current ISP to consider NNOs properly.<br><br>MJA considered that exempting strategic developments from the RIT would increase costs to consumers through increased risks in the competitive market and the risk of stranded transmission assets. RIT–T is a properly designed cost benefit analysis, that would identify the economic and option value of developments such as REZs. | We agree with this position.<br><br>Along with AEC's suggestion, we consider the ISP also has a role in informing input assumptions within the cost–benefit analysis, similar to the NTNDP's current role in the RIT–T (see section 3.4 of the draft RIT application guidelines).<br><br>On Origin's request, given REZs with higher rankings are more likely to be economic and are more likely to be progressed first, we expect to see RIT proponents progress RITs relating to these identified needs first. While we will have regard to AEMO's analysis, particularly when understanding expected wholesale market and inter-regional impacts of different REZs, we will also consider each RIT on its merits. See section 3.4.1 of the draft RIT application guidelines for an example of applying the information in an ISP to a RIT. |

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| | Origin requested we also clarify how conclusions drawn from the ISP in respect to REZ rankings might influence the economic justification for a network investment. | |
| AEC, AEMO | AEC suggested we consider the ISP and treatment of REZs in light of the historical experience with scale efficient network extensions (SENEs) under NER 5.19.<br><br>AEMO submitted that since supply rather than demand is becoming an increasing investment driver, it needs confidence that generation will support priority REZs so transmission networks can rely on AEMO's assumptions about future generation capacity at REZs. | Through its coordination of generation and transmission investment review, the AEMC is considering the experience of SENEs to date, among other factors, in considering what planning and risk-sharing frameworks will promote the NEO. RIT proponents will treat costs, benefits and risks associated with REZ development within the context of the regulatory framework in place.<br><br>When relying on assumptions about future generation capacity, RIT proponents should follow section 3.7 of the draft RIT application guidelines on how to treat committed, anticipated, and modelled projects. |
| AEMO, TEC | Suggests guidance applying RITs to REZs for transmission investments to support new generation. | Section 3.4.1 of the draft RIT–T application guidelines provides an example of how RIT–T proponent might apply a RIT–T analysis to a REZ. |
| AEMO, Delta, TEC | The ISP can form the basis of identified needs.<br><br>TEC requested we specifically clarify how REZs identified in the ISP could establish an identified need for new transmission infrastructure.<br><br>Delta characterised this as, the ISP can guide transmission networks on the projects to more closely evaluate. | An identified need (discussed in section 3.1 of the draft RIT application guidelines) is what the RIT proponent seeks to achieve by investing in the network and should meet an objective (such as increasing market benefits or meeting reliability standards). Given AEMO's preferred development path aims to meet network objectives whilst minimising costs, we would expect RIT proponents could a project within this path as a credible option to meet an identified need. |
| AEMO, ENA PIAC, Snowy Hydro, Spark Infrastructure, TransGrid | RITs should take ISP assumptions, forecasts, inputs and range of scenarios as common assumptions.<br><br>ENA, Spark and TransGrid noted that these assumptions may be modified if there is new information that there has been a material change in circumstances.<br><br>PIAC notes that the ISP is a good vehicle for developing modelling consistency in RITs.<br><br>The ENA felt that ISP assumptions the AER could adopt would likely cover future | This point is sensible and we encourage RIT proponents to use ISP analysis as a starting point to ease the analytical burden. Section 3.4.1 of the draft RIT application guidelines provides guidance on how RIT proponents should consider the NTNDP, ISP or equivalent document in forming assumptions.<br><br>Recognising that the broad ISP analysis will unlikely be sufficiently extensive, individual RIT |

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| | emissions policies, the NEG, technology costs, DER uptake, wind generation capacity factors, solar irradiation assumptions and timing of generator retirements. That said, it considered there may need to be more flexibility with the inaugural ISP.<br><br>AEMO submitted that RIT proponents could take ISP assumptions on demand forecasts, generation expansion and environmental policies, each adjusted for sensitivities. | applications may need to add scenarios to the broad ISP scenarios.<br><br>We also agree that it is sensible to depart from ISP assumptions if external circumstances change, and note that the RIT consultation processes will remain important so that identifying these external changes will not necessarily be limited to RIT proponents' discretion. |
| AEMO, ENA, PIAC, TransGrid | Supports the AER clarifying that the projects in AEMO's recommended network development path form the base case of projects.<br><br>The ENA noted this would include ISP-identified complementary interconnector projects, intra-regional transmission projects and extensions to priority projects.<br><br>It is worth noting that we understand this 'base case of projects' represents projects that will occur in all reasonable scenarios (similar to how we currently treat 'committed projects' under the RITs). | Consistent with current guidance: committed projects should form part of all states of the world, anticipated projects should be included in all 'relevant' states of the world, and appropriate market development modelling will determine the choice of modelled projects in a given state of the world.[63]<br><br>If a project in AEMO's recommended path is an 'anticipated project', a RIT proponent should consider this information when deciding what 'relevant' states of the world to include it in. If a RIT proponent's market development modelling is similar to AEMO's ISP modelling, its 'modelled projects' will likely be consistent with information in the ISP.[64] |
| AEMO, TransGrid | AEMO's ISP work could bypass the PSCR stage.<br><br>In particular, AEMO suggested that priority projects that the ISP recommends as 'least regret' could be fast-tracked under the RIT–T. For instance, the ISP has already consider to some extent, many tasks required under the RIT–T, particularly for the PSCR. | This would require a change to the NER.<br><br>Moreover, we would be hesitant to support this proposal because the PSCR stage is particularly important for facilitating the proposal of targeted NNOs. |
| CCP20 | Suggests requiring a statement as to how the project is consistent with the ISP. The AER could require networks to articulate why a RIT parameter was not adopted from AEMO | We consider this would have value, particularly as the RITs require networks to take a NEM-wide view, for which the ISP is an enabling tool. |
| Delta, MJA | Saw value in using ISP assumptions, particularly in developing scenarios, but considered this should not be restrictive. | This point is sensible and the draft RIT application guidelines encourage RIT proponents to |

63 See AER, RIT–T application guidelines, 18 September 2017, p. 15.

64 For definitions of committed, anticipated and modelled projects, see AER, Final: RIT–T, June 2010, paragraphs (18)–(20).

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| | The ISP could provide scenarios covering the conceivable range of NEM inputs and outcomes under the scenario inputs, identifying common transmission needs across the scenarios. However, the ISP should not prevent proponents for using other scenarios and assumptions. There would be considerable risks of relying on the ISP base case or mandating use of ISP scenarios.<br><br>Delta submitted the ISP should provide consistent parameters for the treatment of relative costs of different technologies and uptake scenarios. However, the RIT application guidelines should require proponents test other scenarios and assumptions to ensure these are up-to-date at the time of the RIT. | consider AEMO data, as well as the inputs, assumptions and reasonable scenarios it provides in the ISP, NTNDP and equivalent documents.<br><br>The draft RIT application guidelines also encourage RIT proponents to consider up-to-date information. For example, while AEMO will update the ISP annually, if material investments are unexpectedly committed within the year, this will affect the reasonable scenarios considered in a RIT. |
| ENGIE | The AER should prescribe a scenario planning process for AEMO to follow when preparing the ISP. The process for developing the NTNDP should include market modelling as well as the existing cost based modelling to ensure that “real world” dispatch pattern variations are also captured. Model benchmarking against real market outcomes should be included in the process to ensure the model is “fit for purpose<br><br>Networks should use the AEMO prepared scenarios for RITs (with some local customisation of the AEMO scenarios that retain the scenario definitions). | We do not have the authority to prescribe how AEMO forms its ISP or NTNDP.<br><br>Our draft RIT application guidelines encourage RIT proponents to consider the ISP, NTNDP and equivalent documents when forming reasonable scenarios. |
| EQ | The predominately transmission-level focus is too limited for the ISP. In some scenarios, the lowest cost option for delivering reliability and security of the NEM while meeting emissions targets will exist at the distribution-level. As such, changes to the RIT–T application guidelines to reflect the ISP should also apply to the RIT–D. | It is important to consider all credible options, not just transmission options, when calculating what investments deliver the highest net benefit across the NEM. We are proposing to provide the same guidance on how to consider the ISP in the RIT–D application guidelines as we do for the RIT–T. |
| PIAC | Suggests aligning ISP and RIT–T processes to ensure consistency and prevent duplication of effort that causes delays, costs and uncertainty. | While each RIT should have regard to the ISP, these follow distinct processes as they service different purposes. The ISP is a strategic development plan that AEMO will refresh annually, whereas a RIT is a cost–benefit analysis that occurs before a network business makes an investment decision. |
| Spark Infrastructure | The AER should accept the scope of options considered in the ISP as satisfying the requirement of 'all credible options' (NER 5.15.2), the proponent may | We do not agree, and providing this would likely undermine the RIT's ability to promote competitive neutrality and investment efficiency. The ISP provides a broad strategic |

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| | but need not consider other options. | development plan of the NEM and lacks the granularity to capture the scope of credible options for a particular identified need. |
| TEC | Supports REZs if they do not lead to speculative investment in transmission networks that may lead to unnecessary costs and stranded assets if market conditions change. | We agree, and consider the RIT is an important means to test the efficiency of these investments, to promote the long-term interest of electricity consumers. |

In response to question 16 on the ISP in the issues paper, some stakeholders raised broader concerns with the RIT framework. Table 16 summarises and responds to these concerns, although we note that these concerns are out of the scope of this RIT application guidelines review.

### Table 16: Submissions raising RIT framework concerns following from the ISP

| Submission | Summary | Response |
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| AEMO, Hydro Tasmania, Snowy Hydro, Spark Infrastructure | The AER should limit RIT–T assessments of priority ISP projects to an alternative approvals process.<br><br>Snowy Hydro, Spark Infrastructure consider this could entail assessing the efficiency of delivering project such as by requiring it to competitively source the most efficient means to deliver the transmission investment.<br><br>AEMO suggested this procedure could be similar to what the US Federal Energy Regulatory Commission did under Order 1000. | This would require a change to the NER.<br><br>Moreover, we are not convinced ISP consultation will be fit to replace the stakeholder consultation applied to individual RITs, which facilitates the proposal of targeted NNOs and allows consumers to test individual project proposals. |
| AEMO, CEFC | The ISP presents an opportunity to consider how to modify the NER, RITs and RIT application guidelines to enable delivery of a long-term plan.<br><br>CEFC considered the ISP will support this if it shows that coordinated investment delivers lower overall costs than ad-hoc upgrades. The transmission planning framework should proactively support the energy market transition while taking into account the costs and benefits to energy consumers. | Changing the RIT framework would require changing the NER.<br><br>We are open to stakeholders suggesting improvements to the RIT framework. Currently, we consider the RIT framework should support a long-term plan, as long as that plan consists of efficient investments that would deliver the highest net market benefits across the NEM. |
| Hydro Tasmania, Snowy Hydro, TransGrid | The current RIT–T is unable to fully assess large strategic investments in the NEM due to its limited ability to consider all market benefits. For instance, it does not include social and environmental benefits and | Changing the RIT framework would require changing the NER.<br><br>Moreover, we do not share this view. The RIT–T captures social and environment benefits where these are priced. If these benefits are unpriced but a government |

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| | benefits that can be achieved outside the electricity market, such as changes in costs to other sectors from lower energy prices. | makes a financial contribution commensurate with the unpriced social benefit, the RIT–T would capture this contribution as an increase in the project's market-wide net benefit. In these cases, the final net benefit under the RIT will effectively capture social and environmental benefits. |
| Hydro Tasmania, Snowy Hydro, TransGrid | The current RIT–T is unable to fully assess large strategic investments in the NEM because it fails to undertake assessments in a timely manner. For instance, it has a lengthy process and can be delayed by individual interests through the disputes process. | Changing the RIT framework would require changing the NER.<br><br>Moreover, we do not share this view. Clauses 5.16.4 and 5.17.4 mandate only a minimum of 18 weeks consultation period i.e. a 12 week minimum consultation period between PSCR and PADR stages, followed by a 6 weeks minimum consultation between PADR and PACR stages. In practice, RITs take longer as a cost–benefit analysis can be complex and time-consuming. However, this is consistent with prudent and efficient decision making, particularly given we require RIT proponents apply RITs to a level of analysis that is proportionate to the scale and likely impact of each credible option.<br><br>The RIT dispute resolution process does not unduly delay the RIT process as we can only commence a dispute determination process if there are valid grounds for the dispute and must make a determination within a maximum of 100 days from the lodgement of dispute. |
| Snowy Hydro, TransGrid | The current RIT–T is unable to fully assess large strategic investments in the NEM because it offers limited flexibility to appropriately weight scenarios based on strategic objectives. | Changing the RIT–T (as opposed to the RIT application guidelines) is out of the scope of this review. Nevertheless, the current approach of weighting scenarios based on their expected probability of occurrence is important for estimating the investment value. Selecting inputs that diverge from what is forecast to occur would distort the outcome of the cost–benefit analysis, which would promote inefficient investments and undermine the NEO. |
| Hydro Tasmania, Snowy Hydro, TransGrid | The current RIT–T is unable to fully support strategic investments and facilitate REZ and supporting transmission interconnection because it favours incremental development. By restricting new developments to incremental argumentations, it costs more in the long-run by not capturing economies of scale benefits.<br><br>It also creates a “chicken and egg” | The RIT framework supports appropriate developments from a NEM-wide perspective and requires proponents undertake market development modelling and scenario analysis, as well as consider inter-regional impacts and changes in costs to other parties. In doing this, the RIT cost–benefit analysis should capture benefits associated with economies of scale.<br><br>The AEMC is currently considering |

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| | dilemma for generation and transmission. | whether there is a "chicken and egg" dilemma, and what changes to the regulatory framework might improve this, via its coordination of generation and transmission investment review. |

Table 17 summarises submissions on topics that were not raised as specific questions in the issues paper. Where we have reflected these suggestions in the draft RIT application guidelines, we have referenced where we have made this amendment in the 'response' column below.

### Table 17: Other points raised in submissions

| Submission | Summary | Response |
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| AEC | Is concerned when RITs are completed well before the identified need (this has taken six years). There should be a time limit, particularly given the rapid market and technological changes. | If we wanted to create this requirement, this would require an amendment to the NER rather than the RIT application guidelines.<br><br>Currently, a lengthy period could occur if, at the outset, the RIT progressed well in advance of the identified need. We would have concerns with this RIT, as there would be limited ability to identify a need and make reasonable forecasts.<br><br>This period could also be lengthy if, through the RIT process, the proponent identified that it would maximise net benefits to defer the credible option. This outcome would align with the NEO. If, in that time, circumstances materially changed such that the preferred option changed, it would have not aligned with the NEO for the investment to have occurred earlier (particularly if the originally expected need for the investment never materialised). |
| AEC | To calculate the full cost of the proposed upgrade, RIT proponents must also include the cost of relieving intra-regional constraints. Also, relieving intra-regional constraints may improve the existing network sufficiently to improve consumers' outcomes and obviate the need for the main network upgrade proposed. Costs of outages to existing network assets required to facilitate upgrades should be included. | We agree that RIT proponents should capture these as changes in market benefits. We also note that the quantification of these changes in market benefits will not be apparent in all RITs. This is because: (1) RITs must not require a level of analysis disproportional to the scale and likely impact of each credible option considered, (2) RIT–T proponents must only quantity classes of market benefits considered material, (3) RIT–D proponents may quantify classes of market benefits where material or where this may change the preferred option.[65] |

65 See NER 5.16.1(c)(2) and (5), 5.17.1(c)(2) and (d).

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| AEC | Separable components of an augmentation should be appropriately identified as RIT options since certain components could deliver significant benefits on their own. | Clauses 5.16.3(e) and 5.17.3(e) of the NER prohibit RIT proponents from treating different parts of an integrated solution to an identified need as distinct and separate options for determining whether the RITs apply to those parts. Once a RIT has applied, we recommend RIT proponents consider staging options in exploring benefits that relate to option value. |
| AEMO | Requires appropriate transitionary measures for RITs in progress following changes coming out of this review. | The draft RIT application guidelines make this clarification under section 1.6. |
| AEMO | Supports providing more clarity to the RIT application guidelines to ensure they remain relevant. | Our draft RIT application guidelines provide greater clarity through more simplified text and new worked examples. |
| AEMO | Suggests guidance on how to assess non-physical investments to meet a system need, like IT and communication systems. | We have not added this specific guidance in the draft RIT application guidelines. If there are areas that lack clarity on how RITs will apply to these types of investments, we welcome specific suggestions on what additional guidance stakeholders would find useful (such as, assessing particular classes of market benefits or forming identified needs). We are also happy to work with AEMO in forming a worked example. |
| CCP20 | The two separate RIT—D and RIT–T application guidelines should be common where possible. Preferably, there is one guideline with an appendix identifying explicit departures for different applications. The RIT application guidelines should also form part of joint planning decisions between transmission and distribution networks. | While we have maintained two RIT application guidelines, we have aligned the structure of the RIT application guidelines. We have also made other drafting efforts to align the two RIT application guidelines where possible. We consider this will assist distribution and transmission businesses in joint planning. We have also included additional guidance on joint planning in throughout the draft RIT application guidelines. |
| CEC, TEC | Requests a lower threshold, lower transaction cost instrument than the RIT–D to avoid limiting opportunities for NNOs. TEC submitted that the need for this has grown with the recent growth of DER, which offer potentially lower cost solutions to network constraints and replacement needs.<br><br>Alternatively, as PIAC argues, network businesses should be required to aggregate similar projects to see if they meet the RIT threshold. | Establishing alternative economic assessments outside the RIT cost threshold is out of the scope of this RIT application guidelines review. In addition, network businesses can consider NNOs outside the RIT process, and the regulatory framework encourages this when efficient (for example, via the incentive regulation framework and demand management incentive scheme for distribution).<br><br>Clause 5.17.1(e) of the NER specifies that the RIT–D permits a single assessment of an integrated set of related and similar investments. |
| CEC | Ergon Energy's Optimal Incremental | Our understanding of OIP is that Ergon |

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| | Pricing (OIP) strategy is a good example of how to improve the RIT–D and engagement with non-network businesses whilst minimising transaction costs. | engages with demand management proactively to avoid identified needs from arising in the first instance. The draft RIT application guidelines now emphasise that ongoing and proactive stakeholder engagement outside of the RIT process, still has an important bearing on the quality of non-network engagement during RITs (see section 4 of the draft RIT application guidelines). |
| CEC | The AER should change the requirements on distribution businesses regarding the Distribution Annual Planning Report to transition from a report-based approach to a geographic information system (GIS)-driven portal to enable better market access and usability of data. | While the APR requirements are not within the scope of the RIT application guideline review, we published a DAPR template last year (and are currently developing a TAPR guideline) to support network businesses providing APR data in consistent, user-friendly, information-age ready format. |
| CitiPower, Powercor, United Energy | Concerned with the length of the RIT process, which can take up to two years, during which time, the relevance of the identified need and NNOs can change. This is challenged by technological change leading to platforms for instant engagement and dispatch. These platforms will make many NNOs readily available, most likely at a lower cost than the contractual RIT requirements. | If a project is subject to a RIT–D, the consultation requirements in the NER can add very little time (if there are no NNOs and the cost is less than $10 million, a RIT–D proponent can publish a project assessment final report as soon as practical after publishing a notice of no NNOs). For large projects where there are NNOs, consultation can add 4.5 months. In practice, RIT–Ds take longer as a cost–benefit analysis can be complex and time-consuming. However, this is consistent with prudent and efficient decision making, particularly given we require RIT proponents apply RITs to a level of analysis that is proportionate to the scale and likely impact of each credible option. |
| AEC, Delta, MJA | Support for independent RIT assessments. AEC was concerned that RIT proponents control the modelling, including determining the input assumptions and reporting the outcomes.<br><br>MJA noted that if it is not possible for RIT modelling to be transparent, then independent parties should undertake the modelling. Delta felt an independent party should coordinate the modelling and scenario analysis to avoid potential biases. Ideally, the AER should undertake transparent RIT modelling. | While AEMO is responsible for the planning of the Victorian transmission network, clause 5.10.2 of the NER requires RIT proponents to either be distribution or transmission businesses. We do not have the authority to make such an amendment, which would require a change to the NER.<br><br>The draft RIT application guidelines specify that RIT proponents should make their modelling, forecasts and assumptions should be consistent, open and transparent (see 4.2–4.4 of the draft RIT application guidelines). |
| Delta, MJA | Cautions against least-cost modelling rather than maximising net benefits. | The RITs seek to maximise net market benefits, not to minimise costs. While the RIT–T includes least-cost market development modelling in estimating different states of the world, we understand this is an appropriate of this |

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| | | modelling. |
| ENA | The RIT application guidelines review can provide most value through practical guidance in areas that have to-date been sources of delay and potential dispute, as well as areas where the current framework and practice may no longer suit emerging technologies or meet customer expectations. | The draft RIT application guidelines aim to achieve this. The areas we consulted on in the issues paper and specifically aim to address originated from issues raised through RIT compliance and areas that COAG determined required new guidance in light of broader changes in the NEM. |
| ENA, SAPN | The AER should revise guidance for including 'other benefits' in the RIT—D. ENA felt this should acknowledge there are circumstances where avoided fuel costs might become a relevant benefit category. SAPN considered additional classes might include the value of: 1) distribution generation for the broader NEM, 2) network and wholesale market access for customer groups. | The draft RIT application guidelines now include a section on adding new classes of market benefits (see section 3.6.2). This provides some high-level guidance, and advises that, to the extent a class of market benefit exists in the RIT–T, a RIT–D proponent should apply to include it in its RIT–D if it expects it to be relevant and material (and vice versa for RIT–T proponents). |
| Citipower, Powercor and United Energy , Endeavour, SAPN | The RIT application guidelines should not be overly prescriptive or administratively burdensome and only warrant incremental changes.<br>Endeavour noted that the current RIT application guidelines strike a good balance.<br>Citipower, Powercor and United Energy submitted that, in general, the RIT application guidelines should be flexible as localised and jurisdictional complexities limit how the RIT application guidelines can prescribe solutions. | The draft RIT application guidelines try to adopt a similar balance of prescription to flexibility as the previous RIT application guidelines. Most of the changes to content are incremental. We have made some more substantial structural changes to better align the RIT–D and RIT–T application guidelines, which promotes consistency, clarity and joint planning. |
| ENGIE | Given the growing role of decentralised generation, customers acting as prosumers, and move away from large generation, the RIT–T should perhaps be more, not less stringent. | While updating the RIT–T application guidelines does not change how stringent the RIT–T is, it can increase clarity to help us better monitor and promote compliance. |
| SACOSS | Has previously raised concerns on the Heywood Interconnector RIT–T about insufficiently weighing costs and benefits against regulatory uncertainty surrounding network investments. It has also raised concerns around projecting benefits in the distant future, readily dismissing NNOs and the timing of investment. | We understand these concerns relate to RIT compliance and do not necessarily require amendments to the RIT application guidelines. Where applicable, we encourage specific suggestions on how and where we should amend our draft RIT application guidelines to better address these concerns. |
| SAPN | The RIT application guidelines should reiterate that NEM market benefits can be accommodated in the capex objectives, as the capex objectives in the NER do not explicitly refer to market benefits. | Clause 6.5.7(a) of the NER requires we assess whether a distribution business is proposing to achieve the capex objectives of meeting/managing demand, complying with regulatory requirements, and maintaining the quality, reliability and security of supply at efficient costs. The concept of 'efficient' costs to meet those objectives should have regard to both |

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| | | costs and market benefits. For instance, assessing how to efficiently meet demand and maintain reliability should have regard to the value of changes in load curtailment.<br><br>If SAPN considers the capex objectives do not have sufficient regard to market benefits delivered across the NEM, it would be reasonable to explore changes to the NER as opposed to additions in to the RIT application guidelines. |
| Spark Infrastructure | Supports pricing reform and adopting proper price signals in investment evaluation processes. | We agree. Section 3.4 of the draft RIT application guidelines add that as a principle, RIT proponents should use inputs based on market data where this is available and applicable. |