



Better Regulation

Explanatory statement

Draft regulatory investment test for distribution and application guidelines

June 2013

© Commonwealth of Australia 2013

This work is copyright. Apart from any use permitted by the Copyright Act 1968, no part may be reproduced without permission of the Australian Competition and Consumer Commission. Requests and inquiries concerning reproduction and rights should be addressed to the Director Publishing, Australian Competition and Consumer Commission, GPO Box 3131, Canberra ACT 2601.

Inquiries about this document should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001
Tel: (03) 9290 1444
Fax: (03) 9290 1457
Email: AERInquiry@ aer.gov.au

Shortened forms

Shortened term	Full title
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
DNSP	distribution network service provider
MW	Megawatt
NEM	National Electricity Market
NER	National Electricity Rules
NSP	network service provider
RIT-T	regulatory investment test for transmission
RIT-D	regulatory investment test for distribution
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
VCR	value of customer reliability
WACC	weighted average cost of capital

Request for submissions

This explanatory statement is part of the Australian Energy Regulator (AER)'S Better Regulation program of work, which follows on from changes to the National Electricity and Gas Rules announced in November 2012 by the Australian Energy Market Commission (AEMC). The AER's approach to regulation under the new framework will be set out in a series of guidelines to be published by the end of November 2013.¹

Interested parties are invited to make written submissions to the AER regarding this document by close of business on Thursday 18 July 2013.

Submissions should be sent electronically to: AERInquiry@aer.gov.au. The AER prefers that all submissions sent in an electronic format are in Microsoft Word or other text readable document form.

Alternatively, submissions can be sent to:

Mr Chris Pattas
General Manager
Network Operations and Development
Australian Energy Regulator
GPO Box 520
MELBOURNE VIC 3001

We prefer that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim.
- provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on the AER's website at www.aer.gov.au. For further information regarding the AER's use and disclosure of information provided to it, see the ACCC/AER Information Policy, October 2008 available on the AER's website.

Enquiries about this paper, or about lodging submissions, should be directed to the Network Regulation branch of the AER on (03) 9290 1444.

¹ Further details on the consultation processes and other guidelines are available at <http://www.aer.gov.au/node/18824>.

Contents

Shortened forms	3
Request for submissions	4
Contents.....	5
Executive Summary	6
1 Introduction	7
1.1 Requirements of the National Electricity Rules	7
1.2 The RIT-D.....	7
1.3 Consultation.....	8
2 RIT-D and application guidelines	9
2.1 Market benefits	9
2.2 Customer initiated projects	10
2.3 Removal of the base case	11
2.4 Additional distribution level market benefits	11
2.5 STPIS	12
2.6 Interested parties	13
2.7 Determining discount rates	14
2.8 Deemed Values	15
2.9 Guidance on stakeholder consultation	16
2.10 Illustrating the RIT-D process	17
2.11 Clause 5.17.4(d) notices and screening for non-network options	17
2.12 Guidance on the lead party in joint planning.....	18
2.13 Reapplication of the RIT-D.....	19
2.14 General guidance on market benefits	19
2.15 Transition from Regulatory Test.....	20
2.16 Estimating option value.....	21
2.17 Estimating costs under uncertainty	22
2.18 Estimating costs generally	22

Executive Summary

The Australian Energy Regulator (AER) is responsible for the economic regulation of electricity transmission and distribution services in eastern and southern Australia under chapters 6 and 6A of the National Electricity Rules (NER). We also monitor the wholesale electricity market and are responsible for compliance with, and enforcement of, the NER. We have similar roles for gas distribution and transmission under the National Gas Rules (NGR).

Consistent with the requirements of cl. 5.17 of the NER, the AER must develop and publish a regulatory investment test for distribution (RIT-D) and accompanying RIT-D application guidelines (the application guidelines). The application guidelines are designed to provide guidance to businesses applying the RIT-D and enhance transparency and consistency in investment decision making.

In terms of the overall assessment framework, the RIT-D process takes place before investment decisions are made. The RIT-D requires distribution network service providers (DNSPs) to consider and assess all credible options before they choose the best option available to meet their networks needs (the preferred option).² The application guidelines set out guidance on how to assess these options and the circumstances in which businesses are required to consider and quantify market benefits when undertaking a RIT-D. The application guidelines aim to ensure that the level of complexity required in the RIT-D process is commensurate with the value and impact of distribution projects.

We commenced the RIT-D development process with the release of a RIT-D Issues paper (Issues paper) on 21 January 2013. The Issues paper provided a brief overview of the history of the development of the existing Regulatory Test for distribution investments (Regulatory Test) and requirements for a RIT-D.³ It discussed the issues we are required to address in the RIT-D and application guidelines. Submissions on the Issues paper closed on 25 February 2013.⁴

We have since developed a draft RIT-D and application guidelines in accordance with cl. 5.17.1 and 5.17.2 of the NER. Submissions on the draft RIT-D and draft application guidelines are due by close of business on Thursday 18 July 2013.

² NER, cl. 5.15.2(a). A credible option may be an option (or group of options) that addresses the identified need, are commercially and technically feasible and can be implement in sufficient time to meet the identified need. Credible options might be alternative investment projects, or initiatives like demand management schemes.

³ AER, Issues paper: *Regulatory Investment test for Distribution*, January 2013.

⁴ Submissions were received from AusGrid, Endeavour Energy, Essential Energy (the NSW DNSPs); Jemena, SP AusNet, CitiPower, Powercor Australia and United Energy (the Victorian DNSPs); ActewAGL Distribution; Aurora Energy Pty. Ltd. (Aurora); SA Power Networks; Ergon Energy Corporation Limited (Ergon); Energex Limited (Energex); Total Environment Centre Inc. (TEC); Energy Networks Association (ENA); Grid Australia; EnerNOC.

1 Introduction

In conjunction with the RIT-D, we must develop and publish application guidelines for the operation and application of the RIT-D.⁵ The draft application guidelines are designed to provide guidance to businesses applying the RIT-D and enhance transparency and consistency in investment decision making.

This explanatory statement sets out the provision of the NER and the purposes of and reasons for which the draft RIT-D and application guidelines are developed.⁶ This document should be read in conjunction with the draft RIT-D and application guidelines.

1.1 Requirements of the National Electricity Rules

The RIT-D arose out of the Australian Energy Market Commission (AEMC)'s national distribution planning arrangements review.⁷ The RIT-D will replace the existing Regulatory Test for distribution investments. This rule change came into effect on 1 January 2013.⁸ Under cl. 5.17.2(d) of the NER, we are required to develop and publish the RIT-D and application guidelines by 31 August 2013. The RIT-D and application guidelines must be developed in accordance with the distribution consultation procedures.

The distribution consultation procedures require the AER to publish the draft RIT-D and application guidelines with an explanatory statement and invite written submissions. Within 80 business days of publishing the draft RIT-D and application guidelines, we must publish the final RIT-D and application guidelines. We may also publish any issues, consultation and discussion papers as we consider appropriate.⁹

1.2 The RIT-D

Clause 5.17 of the NER requires a RIT-D proponent to conduct a RIT-D before it makes an investment decision to address an identified network need. Under cl. 5.17.3(a) of the NER, a RIT-D should be applied to all distribution investments, unless the investment falls under specified exceptions.

The purpose of the RIT-D is to ensure that RIT-D proponents use appropriate measures to assess all credible options before they choose the best option available to meet their network's augmentation needs (the preferred option).¹⁰ The preferred option is the most economical investment project among all credible options in that it is the project that maximises the present value of the net economic benefit to all those who produce, consume and transport electricity in the National Electricity Market (NEM).¹¹ For the avoidance of doubt, a preferred option may have a net economic cost where the identified need is for reliability corrective action. Based on the use of the Regulatory Test and the nature of distribution investments generally, the majority of RIT-D projects will likely be where the identified need is for reliability corrective action.

⁵ NER, cl. 5.17.2(a).

⁶ NER, cl. 6.16(b)(2).

⁷ AEMC, *Final Report: Review of National Framework for Electricity Distribution Network Planning and Expansion*, 23 September 2009. .

⁸ AEMC, *National Electricity Amendment (Distribution network and expansion framework) Rule 2012 No.5*, 11 October 2012.

⁹ NER, cl. 6.16(b).

¹⁰ NER, cl. 5.15.2(a).

¹¹ NER, cl. 5.17.1(b).

1.3 Consultation

On 21 January 2013, we released a RIT-D Issues paper calling for submissions discussing the relevant issues and requirements of a RIT-D and application guidelines as set out in cl. 5.17 of the NER.

Prior to release of the draft application guidelines, we held workshops on the pre-draft RIT-D application guidelines. These workshops were held in Sydney and Melbourne on 15 and 16 May 2013. Stakeholders who attended the workshops were invited to submit comments.

Stakeholders are encouraged to make submissions on the draft RIT-D and application guidelines. Submissions are due by close of business on Thursday 18 July 2013.

1.3.1 Further RIT-D workshops

As required by the NER, we have included worked examples in the draft application guidelines. These examples illustrate a particular explanation in the draft application guidelines. Therefore, we chose not to use complex examples that aimed to illustrate several processes or problems simultaneously.

We are open to accepting further suggestions of worked examples from stakeholders, particularly where this will improve the quality and/or clarity of the application guidelines. We intend on holding further workshops in late June 2013 to further develop the examples contained in the draft application guidelines.

2 RIT-D and application guidelines

The NER requirements for the development of the RIT-D are prescriptive. As a result, we have limited ability to control the simplicity of the RIT-D. This explanatory statement sets out the AER's proposed approach and reasons on the RIT-D provisions. There is particular focus on those provisions which are not prescribed in the NER.

2.1 Market benefits

A RIT-D proponent must consider whether each credible option could deliver the classes of market benefits specified under cl. 5.17.1(c)(4) of the NER.

2.1.1 Proposed approach

We propose that RIT-D proponents include all classes of market benefits in its analysis that it considers to be material when applying a RIT-D. However, the quantification of market benefits is optional for reliability driven projects.

2.1.2 Reasons for the proposed approach

ENA and network service providers (NSPs) submitted that the processes and analysis required under the RIT-D should be significantly simpler than under the regulatory investment test for transmission (RIT-T). In particular, these submissions noted that market benefits associated with load curtailment and network losses would be significantly less under the RIT-D and unlikely to have inter-regional impacts.¹² ENA and SA Power Networks submitted that significant impacts on the wholesale market would be unlikely because any projects where transmission system upgrades are credible options would fall under the RIT-T.¹³ Further, embedded generation in the distribution network would typically be in the order of a few MWs to a few tens of megawatts (MW)s, which is likely to represent under 0.5 per cent of peak demand in the representative region. As a consequence, ENA and SA Power Networks submitted that only elements of the RIT-D that were material to identifying the preferred option should be required.¹⁴ It further submitted that DNSPs need the flexibility to ignore entire classes of market benefits at the start of the process and therefore should not be required to prove immateriality for each assessment, if reasons have already been provided.

We consider that the NER captures the proportionality principle by not obliging RIT-D to quantify market benefits in every application of the RIT-D. Clause 5.17.1(d) of the NER specifies that:

A RIT-D proponent may, under the regulatory investment test for distribution, quantify each class of market benefits under paragraph (c)(4) where the RIT-D proponent considers that:

- (1) any applicable market benefits may be material; or
- (2) the quantification of market benefits may alter the selection of the preferred option.

However, we note that the AEMC's Final Rule Determination qualifies this discretion:

The Commission confirms that it is the intention of clause 5.17.1(d) that the quantification of market benefits is optional under the RIT-D. However this clause must be read in conjunction with 5.17.1(b) which states that:

¹² ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 3; AusGrid, Endeavour Energy, Essential Energy (the NSW DNSPs), *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 3.

¹³ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 2; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 3.

¹⁴ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 2; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 3.

“(b) ...For the avoidance of doubt, a preferred option may, in the relevant circumstance, have a negative net economic benefit (that is, a net economic cost) where an identified need is for reliability corrective action”.

Therefore, where an identified need is not for reliability corrective action, a RIT-D proponent would need to quantify both the applicable costs and market benefits associated with each credible.

2.2 Customer initiated projects

Clause 5.17.4 of the NER sets out the procedures that RIT-D proponents must follow in applying the RIT-D. The RIT-D procedures outline a three stage process which includes:

- Non-network options report
- Draft Project Assessment Report (DPAR)
- Final Project Assessment Report (FPAR).

It also specifies that stakeholder consultation on the RIT-D project should occur.

2.2.1 Proposed approach

Our proposed approach is to maintain the requirements set out in the NER. In accordance with cl. 5.17.4 of the NER, a RIT-D assessment is required under the NER, even if the conduct of the RIT-D would adversely affect the overall timing of a customer-initiated project.

2.2.2 Reasons for the proposed approach

Several submissions noted that the RIT-D process should be sufficiently short so it does not to disrupt customer initiated projects.

ENA and SA Power Networks submitted that RIT-D proponents should be able to complete the RIT-D without significantly disrupting external parties' construction programs.¹⁵ This is because customer-initiated projects typically have lead times of 12–18 months. Therefore, RIT-D proponents should be able to rule options as technically unfeasible if they cannot be completed within the customer's required supply date.

We consider that a RIT-D assessment is required under the NER, even if the conduct of the RIT-D would adversely affect the overall timing of a customer-initiated project. This is because a RIT-D project can only be exempt from a RIT-D if it falls within the exemption clauses set out under cl. 5.17.3(a) of the NER. Some customer-initiated projects may fall under cl. 5.17.3(a)(3) of the NER, which specifies:

the cost of addressing the identified need is to be fully recovered through charges other than charges in respect of standard control services or prescribed transmission services.

Given the NER is prescriptive in this area; our proposed approach is to maintain these requirements.

¹⁵ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 2; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 2.

2.3 Removal of the base case

The application guidelines clarify that where the identified need is reliability corrective action; the base case need not reflect a 'do nothing' state of the world.

2.3.1 Proposed approach

We propose that RIT-D proponents be allowed to select one credible option to serve as the base case against which other credible options are compared. This may involve comparing credible options against a 'do nothing' base case.

2.3.2 Reasons for the proposed approach

We sought comment in the Issues paper on the removal of the requirement to compare the effect of each credible option against a 'do nothing' base case, in light of the historical preponderance of reliability-driven network investments in the NEM. Ergon submitted that the relevance of 'a do nothing' option could drastically increase in light of reforms to security/reliability standards. They further submitted that under the proposed deterministic risk-based or output-based security criteria, it would be difficult to determine the appropriate level of investment without a 'do nothing' base case.¹⁶ Problems may arise where a credible option has a negative value and the local jurisdiction requires a positive outcome in comparison to doing nothing. Further, the Victorian DNSPs, ENA and SA Power Networks submitted that the application guidelines should not preclude a DNSP from including a 'do nothing' base case in the RIT-D assessment.¹⁷

Where the identified need is for a reliability corrective action, a relative ranking of options is required for identifying the credible option. To simplify the required analysis and to avoid the need to formulate a 'do nothing' base case where such an outcome is not feasible, the draft application guidelines allows RIT-D proponents to select one credible option to serve as the base case against which other credible options are compared. Under these circumstances, the 'base case credible option' may be the preferred option if it offers the highest relative benefit of all the credible options. However, this does not preclude RIT-D proponents from comparing credible options against a 'do nothing' base case.

2.4 Additional distribution level market benefits

Clause 5.17.1(c)(4) of the NER requires RIT-D proponents to consider whether a credible option could deliver specified classes of market benefits.

2.4.1 Proposed approach

We propose that it is appropriate to give RIT-D proponents the option to consider wholesale market impacts, where such impacts could reasonably be considered material.

2.4.2 Reasons for the proposed approach

We consider it appropriate to allow proponents to identify other relevant costs and market benefits that have not been specified in the NER. These proponents can seek our written confirmation that the relevant costs can be considered under the RIT-D.

¹⁶ Ergon Energy, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 5.

¹⁷ Jemena, SP AusNet, CitiPower, Powercor Australia and United Energy (the Victorian DNSPs), *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 7; ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 4; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 4.

ENA, NSW DNSPs and SA Power Networks submitted that the RIT-D should provide the opportunity for proponents to identify other relevant costs and market benefits in RIT-D assessments.¹⁸ RIT-D proponents would then seek the AER's written confirmation to determine whether they could be considered under the RIT-D. Further, EnerNOC submitted that if the availability and dispatch payments made by the DNSPs could be counted as economic costs, then they should be counted as economic benefits as well.¹⁹ Grid Australia also submitted that reductions in wholesale dispatch costs and ancillary services requirements could capture benefits associated with improved demand management not already captured in the NER.²⁰

A demand response payment is, at least partly, compensating consumers for the cost of not consuming electricity. To this extent, benefits that energy consumers receive from dispatch payments would be offset by the negative market benefit of not consuming electricity. These benefits are captured under cl. 5.17.1(c)(4)(i) of the NER which specifies that the RIT-D must:

Require the RIT-D proponent to consider whether each credible option could deliver...changes in voluntary load curtailment.

As a result, we consider it is appropriate to give RIT-D proponents the option to consider wholesale market impacts, where such impacts could reasonably be considered material.

Voluntary load curtailment

If we are to consider changes in voluntary load curtailment, it would be consistent to also consider demand response payments as a market benefit. Depending on the value of customer reliability (VCR), the change in voluntary load curtailment (as a negative market benefit) could completely offset the demand response payment received by the consumer. Such an option could then be compared against a network or distributed generation option that avoided voluntary curtailment of load, but required spending on capital and operating costs.

The NER already allows improved reliability above the mandated minimum level to be included in the RIT-D analysis.²¹ Improvements in foregone distribution losses are captured under cl. 5.17.1(c)(4)(vii) of the NER. Further, clause 5.17.1(c)(8) of NER does not allow environmental benefits to be considered as a market benefit under the RIT-D, as they are external to the NEM.

The conceivable range of market benefits from demand side participation projects is not completely certain. We are of the view that, theoretically, it is possible for demand management projects to have a demand side impact on the wholesale market. However, we also recognise that the majority of demand management projects would be too small to have a material impact on the wholesale market. Therefore, we are of the view that it is appropriate to give RIT-D proponents the option to consider wholesale market impacts, where such impacts could reasonably be considered material.

2.5 STPIS

The RIT-D Issues paper sought views on whether the service target performance incentive scheme (STPIS) should be modified to take into account the impact of credible options.

¹⁸ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 6; NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 4; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 7.

¹⁹ EnerNOC, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 7.

²⁰ Grid Australia, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 7.

²¹ NER, cll 5.17.1(c)(4)(i)-(ii); 5.17.1(c)(5).

2.5.1 Proposed approach

We propose not to revise STPIS targets as a result of a RIT-D.

2.5.2 Reasons for the proposed approach

We are of the view that STPIS payments effectively represent a wealth transfer and should not be included in the RIT-D. Guaranteed service level payments under the STPIS flow from DNSPs to consumers to compensate consumers for poor performance. Further, allowed revenue is adjusted in line with the DNSP's performance. We consider that this constitutes a wealth transfer. Therefore, we will not revise STPIS targets as a result of a RIT-D.

This view is also supported by submissions we received on the Issues paper. ENA, NSW DNSPs and SA Power Networks submitted that STPIS payments represented a wealth transfer between NEM parties and should not be included in the RIT-D.²² ENA and SA Power Networks also submitted that it would be disproportionate burden on DNSPs to consider the impact of a single project on STPIS targets with respect to the value of the augmentation.²³

The NSW DNSPs submitted that there is only a tenuous link between the STPIS and RIT-D projects.²⁴ RIT-D impacts should be assessed at the subsequent determination as opposed to under the STPIS. Therefore, we consider that the STPIS targets should not be revised.

2.6 Interested parties

An interested party is a person including an end user or its representative who, in the AER's opinion, has the potential to suffer a material and adverse NEM impact from the investment identified as the preferred option in the DPAR or the FPAR.²⁵ We are required to provide guidance on material and adverse market impacts for the purposes of defining interested parties.

2.6.1 Proposed approach

The draft application guidelines set out that material and adverse market impacts for the purposes of defining interested parties should include:

- An impact on a network operator or other stakeholders such as aggregators or energy service companies in the NEM that:
- Constrains the network operator's ability to fulfil functions mandated under the NER; or
- Undermines the stakeholder's ability to perform its operations to the extent that it can no longer operate or perform a particular function. This may result from physical obstruction or a substantial reduction in profitability; or
- An impact on an electricity consumer, in their role as a consumer of electricity that reduces the quality or reliability of their electricity supply below what is required under the NER or reduces the sum of consumer and producer surplus.

²² ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 8; NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p 5; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, pp. 9–10.

²³ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 8; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, pp. 9–10.

²⁴ NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p 5.

²⁵ NER, cl. 5.16.4; 5.16.5; 5.17.4; 5.17.5.

2.6.2 Reasons for the proposed approach

We sought stakeholder views on who we should consider an interested party under the definition in the NER.²⁶ We also sought views on the guidance stakeholders would find useful in interpreting the definition of interested parties and whether the change in terminology from material and adverse 'market impacts' to 'NEM impacts' improved clarity.

Stakeholders generally submitted that the change in terminology was positive. However, TEC submitted that while the change improved clarity, it did so at the expense of more considered and holistic decision-making.²⁷

Further, while ENA and SA Power Networks supported the change in principal, they questioned the legal robustness in achieving the outcome of preventing disputes by third parties.²⁸ The Victorian DNSPs submitted that the application guidelines should set out the reasoning for the change in terminology, to assist interested parties in understanding the scope of the RIT-D and the grounds on which disputes may be raised. The Victorian DNSPs submitted that the application guidelines should address how the AER will determine whether disputing parties have the potential to suffer a material and adverse NEM impact.²⁹ This should include a threshold on material and adverse NEM impact and what constitutes a manifest error.

We note that the NER establishes the definition for interested parties. Therefore, we have limited ability to depart from the definition. The draft application guidelines provide clear guidance on what we expect is a material and adverse market impact.

It is relatively simple to define material and adverse NEM impacts in terms of what they are not. That is, they do not concern impacts relating to personal detriment and personal property rights (or anything external to the NEM). However, it is also important to develop a definition for material and adverse NEM impacts. In the draft application guidelines, we have defined this as:

- An impact on a network operator in the NEM that constrains the network operator's ability to operate and fulfil its functions required under the NER; or
- An impact on an electricity consumer, in their role as a consumer of electricity that reduces the quality or reliability of their electricity supply below what is required under the NER or reduces the sum of consumer and producer surplus.

2.7 Determining discount rates

The RIT-T and the Regulatory Test have specified a particular method for determining the discount rate for present value calculations. They state that a commercial discount rate appropriate for the analysis of a private enterprise investment in the electricity sector should be used. They also specify that this discount rate should be consistent with the cash flows being discounted. In the Issues paper we sought stakeholder views on whether the RIT-D should specify the same methodology for determining the discount rate as the RIT-T and Regulatory Test.

²⁶ Interested parties are defined as end users or their representatives who we consider could suffer a material and adverse NEM impact from the proposed preferred option.

²⁷ TEC, *Submission to the AER RIT-D Issues Paper*, 11 February 2013, p. 5.

²⁸ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 9; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 11.

²⁹ Victorian DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 11.

2.7.1 Proposed approach

For regulatory consistency, we propose having the same method for determining the discount rate across both regulatory investment tests. The methodology under the RIT-T specifies that the present value calculations must use a commercial discount rate appropriate for the analysis of a private enterprise investment in the electricity sector. The discount rate used must be consistent with the cash flows being discounted and proponents should use the regulatory weighted average cost of capital (WACC) as the lower bound.

2.7.2 Reasons for the proposed approach

Different types of RIT-D projects will carry different level of risks, and RIT-D proponents need the flexibility to account for this when determining the discount rate. The RIT-T methodology for determining the discount rate is sufficiently flexible to be adjusted between projects. If appropriate, RIT-D proponents can adjust the discount rate to reflect differences associated with projects in regional areas.

This flexible approach is supported by the Victorian DNSPs. They submitted that, given the regulatory WACC remains a contentious issue and recent volatility in capital markets has led to significant changes in the risk free rate. Therefore, it would seem counterproductive to *hard wire* a discount rate or a methodology for determining the discount rate in the application guidelines at this time.³⁰ For this reason, we do not intend on providing worked examples for determining the discount rate.

2.8 Deemed Values

Submissions made to the Issues paper noted that the AER should establish deemed values, such as updated unit rates from regulatory proposals, while allowing RIT-D proponents to apply more complex quantification methods where appropriate.

2.8.1 Proposed approach

Our proposed approach is not to prescribe ranges for sensitivity, because these are likely to change between RIT-D assessments. However, the RIT-D will prescribe that RIT-D proponents use the VCR in the RIT-D calculations, as prescribed in their respective jurisdiction.

2.8.2 Reasons for the proposed approach

Submissions on the Issues paper noted that we specify the following:

- guidance regarding variances to apply in the sensitivity analysis. Deemed values for variances should be provided for the VCR, costs and discount rates.
- the application guidelines should not prescribe ranges for the purpose of sensitivity testing.
- annually clarify its views on the value of customer reliability.

We do not consider prescribing ranges for sensitivity, because these are likely to change between RIT-D assessments. For instance, the variability of input costs may be different between network and non-network options. Also, demand sensitivity may differ between regions, for example in lower temperate climates. For this reason, we consider that RIT-D proponents are in a better position for determining these values.

³⁰ Victorian DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 12.

Where applicable, a RIT-D proponent should use a reasonable measure of the VCR in calculating market benefits. A RIT-D proponent should use VCR estimates from a reputable source, such as the AEMO or the AEMC. If a NEM-wide reliability framework tasks an entity with the role of calculating VCR, then the RIT-D proponent should use these estimates for VCR in the relevant region. The RIT-D retains a flexible view on the calculation of the VCR, as it needs to account for any possible changes to the reliability framework.

2.9 Guidance on stakeholder consultation

A RIT-D proponent must consult with the following persons on the RIT-D project:

- all Registered Participants
- AEMO
- interested parties
- non-network providers.

If the RIT-D proponent is a DNSP:

- persons registered on its demand side register.

2.9.1 Proposed approach

We do not propose to include specific guidance on stakeholder consultation because we note that the NER provides detailed guidance on this issue. Clause 5.17.4(a) of the NER, specifies:

If a RIT-D project is subject to the regulatory investment test for distribution under clause 5.17.3, then the RIT-D proponent must consult with the following persons on the RIT-D project in accordance with this clause 5.17.4:

- (1) all Registered Participants, AEMO, interested parties and non-network providers; and
- (2) if the RIT-D proponent is a Distribution Network Service Provider, persons registered on its demand side engagement register.

2.9.2 Reasons for our proposed approach

We consider that RIT-D proponents are able to maintain a register of, interested parties as required by cl. 5.17.4(a) of the NER.

ENA and SA Power Networks submitted that the application guidelines should clarify how DNSPs identify and maintain the contact details of various parties for consultation. This is because not all registered participants, interested parties or non-network providers would have registered their interest through the DNSP's Demand Side Engagement Register. They were also concerned that the list of Registered Participants available on the AEMO website lacked contact details and included parties that would have no interest in the activity of the relevant DNSP. Their preference was to notify the AER, AEMO and parties registered on the DNSP's Demand Side Engagement Register.³¹

We are of the view that RIT-D proponents are able to maintain their own demand-side contact registers. This will be achieved by keeping each proponent's website up-to-date with well targeted

³¹ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 13; SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 14.

information about the Demand Side Engagement Register. The website should clearly explain how demand-side participants can have their contact details included on the register.

2.10 Illustrating the RIT-D process

In response to the Issues paper, a number of submissions suggested that the AER should provide sample flowcharts explaining how the RIT-D process operates.

2.10.1 Proposed approach

We have included a flowchart under section 3 of the application guidelines. This illustrates how projects flow through the RIT-D process.

2.10.2 Reasons for our proposed approach

We agree that diagrams helping explain the RIT-D process will be useful in explaining the operation of the RIT-D. Figure A in section 3 of the draft application guidelines illustrates how different sized projects may flow through the RIT-D process.

Figure A shows the RIT-D process where a non-network option is or forms a significant part of a potential credible option. It also shows how RIT-D proponent is not required to prepare and publish a DPAR if it made a determination under paragraph (c) and has published a notice under paragraph (d) and the estimated capital cost of the preferred option is under \$10 million³². This is where sub paragraph (c) states that a RIT-D proponent does not need to prepare and publish a non-network options report if it determines, on reasonable grounds, that no non-network options are potential credible options, or form a significant part of a potential credible option.

If the preferred option has an estimated capital cost under \$20 million, the RIT-D proponent may discharge its obligations to publish its final project assessment report under paragraphs (o) and (p) by including its final project assessment report as a part of its Distribution/Transmission Annual Planning Report.³³

2.11 Clause 5.17.4(d) notices and screening for non-network options

Clause 5.17.4(d) of the NER sets out that a RIT-D proponent make a determination and publish a notice setting out the reasons for its determination, including any methodologies and assumptions used in making its determination (Notice).

2.11.1 Proposed approach

We have formalised guidance on how to screen for non-network options under part 7 of the draft application guidelines. We are of the view that a Notice as required under cl. 5.17.4(d) of the NER and the Draft Project Assessment Report (DPAR) as required under cl. 5.17.4(i) of the NER are separate documents. They should not be used interchangeably.

2.11.2 Reasons for our proposed approach

It is essential to set out formal guidance on screening for non-network options. Clause 5.17.3(c)(1) of the NER requires the application guidelines to provide guidance and worked examples on how to make a determination under cl. 5.17.4(c) of the NER. RIT-D proponents can only make a determination under cl. 5.17.4(d) of the NER. This is after it has determined that no non-network

³² NER, cl. 5.17.4(n).

³³ NER, cl. 5.17.4(s).

options could be potential credible options or form a significant part of a potential credible option to address the identified need. A RIT-D proponent cannot reasonably make such a determination without screening for non-network options beforehand.

SA Power Networks submitted against formalising guidance on how to screen for non-network options, because it would probably become redundant over time due to the rapid technological change.³⁴ We consider guidance on how to screen for non-network options to be useful for ensuring that RIT-D proponents apply the RIT-D consistently and transparently. We believe the guidance we have provided is sufficiently broad to be relevant following future technological changes.

SA Power Networks queried whether the Notice and DPAR could be the same where the project is large enough to require a DPAR and the RIT-D proponent did not identify any viable non-network options. SA Power Networks submitted that the AER should explain what differences should exist between the Notice and the DPAR if they could not be the same.³⁵

We are of the view that a Notice and DPAR are different documents under the NER. The Notice explains why no non-network options were potential credible options or could form a significant part of a credible option. The DPAR contains detailed information on the cost-benefit analysis under the RIT-D.

2.12 Guidance on the lead party in joint planning

2.12.1 Proposed approach

The draft application guidelines do not specify who should be the lead party in joint planning RIT-D projects.

2.12.2 Reasons for our proposed approach

We do not consider it appropriate for the draft application guidelines to provide advice on who should be the lead party in joint planning RIT-D projects.

The NSW DNSPs, ENA, Ergon, Victorian DNSPs, Energex submitted that the AER should provide guidance on who should be the lead party in joint planning where it could not be decided between parties.³⁶ The NSW DNSPs and Ergon further submitted that in such a scenario, this should default to the transmission network service provider (TNSP) because DNSPs generally lack the systems to undertake a RIT-T analysis.³⁷ Victorian DNSPs submitted that this should default to the party that identified the need.³⁸

The AEMC considered this issue in its 2012 Rule Determination.³⁹ The AEMC did not consider it appropriate for the rule to allocate responsibility to one person over another on the basis that each NSP should retain control over the planning of the network which it operates. We agree with this view and maintain that the relevant service providers should work closely together to meet the necessary regulatory requirements.

³⁴ SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 16.

³⁵ SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 16.

³⁶ NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 3; ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 13; Ergon Energy, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 4; Victorian DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 4.

³⁷ NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 3; Ergon Energy, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 4.

³⁸ Victorian DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 4.

³⁹ AEMC, Rule Determination, *National Electricity Amendment (Distribution Network Planning and Expansion Framework) Rule 2012*, pp. 59–60.

2.13 Reapplication of the RIT-D

2.13.1 Proposed approach

A number of submissions requested that the AER provide guidance on the reapplication of the RIT-D. Our proposed approach is to not add anything further to the requirements set out under cl. 5.17.4(t) of the NER.

2.13.2 Reasons for our proposed approach

SA Power Networks submitted that the AER should provide guidance regarding the impact of changes to project timing on the RIT-D process, and confirmation that minor project delays (e.g. 1–2 years), resulting from other factors, would not require a new RIT-D to be completed.⁴⁰

Where there has been a material change in circumstances which, in the reasonable opinion of the RIT-D proponent means that the preferred option identified in the FPAR is no longer the preferred option, then the RIT-D proponent must reapply the RIT-D. The AER may determine that the RIT-D need not be reapplied.

We consider that the requirements under the NER are detailed and therefore we will not provide any further guidance on this use.

2.14 General guidance on market benefits

RIT-D proponents should add residual network values at the end of the analysis period into the RIT-D analysis, if they are material and quantifying it would alter the selection of the preferred option.

2.14.1 Proposed approach

Clause 5.17.1(c)(4)(iii) of the NER requires RIT-D proponents to consider whether each credible option could deliver changes in costs for parties, other than the RIT-D proponent. We propose to define other parties as: all those, other than the RIT-D proponent, who produce, consume or transport electricity in the NEM that own plant and/or incur capital, operating and maintenance costs in the NEM.

Our draft RIT-D application guidelines also clarify that, if a RIT-D augmentation changes the connection costs of a third party, RIT-D proponents should count this as a benefit under the RIT-D.

2.14.2 Reasons for our proposed approach

RIT-D proponents should add residual network values at the end of the analysis period into the RIT-D analysis. Such residual values may be significant, considering that the RIT-D proponent must consider differences in the timing of expenditure and changes in the timing of new plant for other parties. However, RIT-D proponents should consider whether these residual values would be material and quantifying it would alter the selection of the preferred option.

Clause 5.17.1(c)(4)(iii) of the NER requires RIT-D proponents to consider whether each credible option could deliver changes in costs for parties, other than the RIT-D proponent. In their submission to the RIT-D Issues paper, the Victorian DNSPs suggested that the identity of these *other parties* should be described in the application guidelines.⁴¹

⁴⁰ SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 16.

⁴¹ Victorian DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 7.

Ergon queried whether the value of disaster recovery/response should be included as a market benefit. We note that the scenario analysis could be appropriate for capturing the value of disaster recovery/response. Built-in capacity to recover from or respond to disasters could change the expected operating and maintenance costs over the operating life of the credible option. However, RIT-D proponents should be cautious that it may be difficult to treat this issue adequately under the RIT-D.

2.15 Transition from Regulatory Test

By 31 December 2013, Network Service Providers (NSPs) must submit a list to us of their projects they consider should fall under the Regulatory Test. We must provide these NSPs with guidance on when we will consider a Regulatory Test assessment to have commenced.⁴² This guidance will provide NSPs with an insight on the projects they should submit and whether or not we are likely accept their submitted projects as falling under the Regulatory Test.

2.15.1 Proposed approach

Our proposed approach is to specify that, a NSP has commenced assessing a project under the Regulatory Test if, before 1 January 2014, it has:

- Published a project evaluation under the former regulations
- identified the project in a published DAPR released a request for information, and/or
- commenced an option analysis for the project under the Regulatory Test.

2.15.2 Reasons for our proposed approach

SA Power Networks submitted several circumstances under which a project should be evaluated under the Regulatory Test.⁴³ Our proposed approach excludes two submissions:

- The first augmentation is expected to commence construction within 24 months of the RIT-D coming into force; or
- The project is included in the list of projects subject to the Regulatory Test submitted to the AER prior to 31 December 2013.⁴⁴

We do not consider it appropriate for RIT-D proponents to capture projects under the Regulatory Test where it expects the first augmentation to commence construction within 24 months of the RIT-D commencement date. Clause 11.50.2 of the NER requires the RIT-D to commence on 1 January 2014. We consider that two years after this date would be an excessive amount of time for NSPs to avoid applying the RIT-D. Further, cl. 11.50.5(c) of the NER requires that whether a project falls under the RIT-D or Regulatory Test, it should depend on when the project has commenced the Regulatory Test process as opposed the amount of time passed since the RIT-D commencement date.

Further, we may determine that a project/s in the list submitted under cl. 11.50.5(c) of the NER has not commenced under the Regulatory Test.⁴⁵

⁴² AEMC, *National Electricity Amendment (Distribution network planning and expansion framework) Rule 2012 No. 5*, pp. 92–93.

⁴³ SA Power Networks, *Submission to the AER RIT-D Issues Paper*, 26 February 2013, p. 16

⁴⁴ NER, cl. 11.50.5(c).

⁴⁵ NER, cl. 11.50.5(e).

2.16 Estimating option value

The RIT-D Issues paper sought stakeholder views on the methodologies the application guidelines should adopt for valuing market benefits.

2.16.1 Proposed approach

We do not consider that RIT-D proponents should treat option value differently under the RIT-D. If performed properly, a cost-benefit analysis should capture option value in the identification of credible options and scenario analysis.

2.16.2 Reasons for our proposed approach

We received advice on option value for the RIT-T from internal and external economic consultants. The consultants concluded that, if performed properly, a cost-benefit analysis should capture option value in the identification of credible options and scenario analysis. We do not consider that RIT-D proponents should treat option value differently under the RIT-D.

We have explained our reasoning and provided guidance in the draft application guidelines on how RIT-D proponents should capture option value in the RIT-D. Our draft application guidelines do not include the statement used in the RIT-T application guidelines that states:

The AER is of the view that a TNSP has considered a sufficient number and range of credible options where the number of credible options being assessed regarding a particular identified need is proportionate to the magnitude of the likely costs of any credible option.

However, the draft application guidelines explain that cl. 5.15.2(c) of the NER that states:

In applying the regulatory investment test for distribution, the RIT-D proponent must consider, in relation to a RIT-D project other than those described in clauses 5.17.3(a)(1)-(6), all options that could reasonably be classified as credible options, without bias as to:

- (1) energy source;
- (2) technology;
- (3) ownership; and
- (4) whether it is a network option or a non-network option.

In its submission to the RIT-D Issues paper, EnerNOC submitted that RIT-D proponents should quantify option value using a robust methodology and count it as a market benefit. EnerNOC further submitted that the AER's guidance for the RIT-T is wrong when it states that the appropriate identification of credible options and reasonable scenarios captures any option value.⁴⁶

We consider that this should not be a concern under our proposed approach, because RIT-D proponents are required, under the NER, to consider all options that they could reasonably classify as credible options. By considering all credible options the RIT-D should capture option value appropriately.

⁴⁶ EnerNOC, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, pp. 5–6.

2.17 Estimating costs under uncertainty

2.17.1 Proposed approach

Where there is material uncertainty regarding project costs, we consider that RIT-D proponents should assign probabilities to each reasonable sensitivities and weight them accordingly to derive an expected cost for each credible option.

2.17.2 Reasons for our proposed approach

This proposed approach differs from that set out in RIT-T for estimating uncertain costs. The RIT-T requires RIT-T proponents to treat materially uncertain costs as the probability weighted present value of the direct cost of the credible option under a range of different cost assumptions.

Aurora submitted that the methodologies for estimating costs under the RIT-D should be consistent with the RIT-T.⁴⁷ The ENA and the NSW DNSPs submitted that the AER should take the RIT-T approach, but specified that the approach should be limited to situations where there is material uncertainty about input costs and the choice of the preferred option is shown to be sensitive to those variations.⁴⁸

Our approach differs from the RIT-T because materially uncertain costs are likely to be less of an issue under the RIT-D. The methodology for assigning probabilities to each reasonable scenario will depend on the methodology for defining it. We have formed this view for the following reasons:

- According to previous RIT-Ts, project uncertainty typically lies in project timing. This can have a major impact on transmission projects because they can influence spot prices, and therefore electricity costs. This is unlikely to occur for RIT-D projects.
- There could also be uncertainty concerning input costs. However, RIT-D proponents could hedge against input prices, so a cost estimate could account for this.
- There could also be uncertainty in terms of load forecasts. However, this is only likely to influence project costs through changes in project timing. This would limit cost variability to: project value times the discount rate for the deferral period.

2.18 Estimating costs generally

2.18.1 Proposed approach

Costs incurred before the RIT-D process is finalised would typically be treated as sunk costs and therefore excluded from the cost-benefit analysis. However, we will monitor the issue of easements under the RIT-T, because this may have an impact on the RIT-D.

Other costs, such as the administration of tenders and contracts should be included in the RIT-D when they are material and relate to a credible option.

⁴⁷ Aurora, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 5.

⁴⁸ ENA, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 10; NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 7.

2.18.2 Reasons for our proposed approach

Energex submitted that the AER should provide guidance on costs incurred at different stages and before the RIT-D process is finalised, such as design costs, interest on borrowings and land strategically acquired before or during the RIT-D.⁴⁹

Our proposed approach is that costs incurred before the RIT-D process is finalised would typically be treated as sunk costs and therefore excluded from the cost-benefit analysis. However, land strategically acquired before the RIT-D, is an issue under the RIT-T. Our proposed approach is to monitor this issue because it may have an impact on how easements will be considered under the RIT-D.

NSW DNSPs requested guidance on how we will approach costs in performing due diligence checks, administration of tenders and contracts with third parties costs.⁵⁰ We have formed the view that RIT-D proponents could quantify costs in performing due diligence checks, the administration of tenders and contracts with third parties. However, RIT-D proponents should only quantify these costs insofar as they are material and relate directly to the credible option. These would fall under applicable administrative requirements in relation to the construction and operation of the credible option.

Aurora requested guidance on how we will approach costs associated with interruptions during project implementation, embedded generation on stand-by, load shifting where there is an impact on consumption patterns and costs associated with embedded generation.⁵¹ We consider that if an embedded generator incurs costs while it is on stand-by, the RIT-D proponent should only quantify these costs if they were direct costs.

Victorian DNSPs requested guidance on how we will approach risks such as the future need to include underground cables.⁵² We note that a RIT-D proponent needs to consider, under each credible option, the range of costs and the probability weighted behind each of these costs.

2.19 Dispute Resolution

2.19.1 Proposed approach

We consider that cl. 5.17.5 of the NER is sufficiently explicit on the dispute resolution process under the RIT-D. Therefore, we propose to base our dispute resolution guidance, as required under cl. 5.17.2(b)(2)(iv and cl. 5.17.5 of the NER.

2.19.2 Reasons for our proposed approach

The draft application guidelines outline the dispute resolution process as set out in cl. 5.17.5 of the NER. We have limited discretion to alter the process beyond that prescribed in the NER. For this reason, we are unable to limit the lodgement of disputes.

⁴⁹ Energex, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 7.

⁵⁰ NSW DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013.

⁵¹ Aurora, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 2.

⁵² Victorian DNSPs, *Submission to the AER RIT-D Issues Paper*, 25 February 2013, p. 12.