Cost Thresholds Review for the Regulatory Investment Test for Transmission

Draft determination and notice requesting submissions

September 2012

AUSTRALIAN ENERGY REGULATOR

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Shortened forms

AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
APR	annual planning report
DNSP	distribution network service provider
Electricity Rules	National Electricity Rules
MCE	Ministerial Council on Energy
NEM	National Electricity Market
NSP	network service provider
NTNDP	National Transmission Network Development Plan
NTPA	National Transmission Planning Arrangement
RIT-D	regulatory investment test for distribution
RIT-T	regulatory investment test for transmission
TNSP	transmission network service provider

1 Summary

The regulatory investment test for transmission (RIT-T) is a cost-benefit test that transmission companies must apply before building electricity transmission infrastructure. The test applies for only transmission investments above certain cost thresholds. The National Electricity Rules (Electricity Rules) requires the Australian Energy Regulator (AER) to review changes in input costs every three years and adjust the cost thresholds to reflect these changes.

The AER published an Issues Paper on 1 July 2012 to commence the review. The AER received two submissions.

The AER's draft determination is that:

- the $5 million cost thresholds in clause 5.6.5C, in relation to the definition of replacement transmission network asset and in relation to transmission investment as referred to in the definition of new network investment, be maintained at $5 million; and
- the $35 million cost threshold in clause 5.6.6(y) be increased to $38 million. The revised cost threshold will take effect on 1 January 2013.

2 Introduction

The AER is responsible for the economic regulation of electricity transmission and distribution services in the national electricity market (NEM) as well as some gas transportation services. The AER also monitors compliance in the wholesale electricity and gas markets and is responsible for enforcement of the National Electricity Rules and National Gas Rules.

On 31 July 2012, in accordance with clause 5.6.5E of the Electricity Rules, the AER initiated a review of the cost thresholds associated with the RIT-T and replacement transmission network assets. The AER published a short issues paper seeking stakeholder input on changes in capital costs since 1 July 2009 and whether the cost thresholds should be changed to maintain their appropriateness. Submissions closed on the 21 August 2012. Submissions were received from Ergon Energy and Grid Australia[1].

The RIT-T is a cost-benefit analysis used to identify the transmission investment option (the preferred option) that maximises the net economic benefits and, where applicable, meets the relevant jurisdictional Rule based reliability standards.[2]

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1 A copy of each submission is available on the AER website

2 The existing regulatory test applies to projects which address a need on the distribution network. The Ministerial Council on Energy, now referred to as the Standing Council on Energy and Resources (SCER), proposed a new project assessment process for distribution, the regulatory investment test for distribution (RIT-D). This rule change proposal is currently being considered by the AEMC, with a Final Rule Determination due in September 2012. If introduced, the proposed RIT-D will replace the regulatory test for distribution network service providers.

All transmission investment is subject to both the RIT-T and RIT-T consultation procedures unless exempted by clause 5.6.5C of the Electricity Rules. Several of the categories of exemption exclude a class of transmission investment where the estimated capital cost does not exceed a cost threshold. The relevant categories are where:

a. the estimated capital cost of the most expensive option to address the relevant identified need which is technically and economically feasible is less than $5 million.[3]

b. the maintenance, or replacement expenditure results in an augmentation to the network and the estimated capital cost for the augmentation component of the proposed expenditure is less than $5 million.[4]

c. the proposed transmission investment is an investment undertaken by a Transmission Network Service Provider which:

   i. re-routes one or more paths of the network for the long term; and

   ii. has a substantial primary purpose other than the need to augment the network;

   and which the relevant Transmission Network Service Provider reasonably estimates to have an estimated capital cost of less than $5 million.[5]

Similarly, the definition of replacement transmission network asset and transmission investment as referred to in the definition of new network investment include cost thresholds of $5 million as part of their definition.

Further, where transmission investment is subject to the RIT-T and the preferred option does not exceed a cost threshold of $35 million, the network service provider preparing the RIT-T may be exempted from parts of the RIT-T consultation procedures.[6]

The AER must review the appropriateness of these cost thresholds every three years by assessing changes in input costs. Consistent with the requirements of clause 5.6.6E, this document represents the AER's draft determination on the cost thresholds review and also represents the notice requesting submissions as required by clause 5.6.3E(d).

3 Rule requirements

Clause 5.6.5E of the Electricity Rules states:

(a) Every 3 years the AER must undertake a review (the cost threshold review) of the changes in the input costs used to calculate the estimated capital costs in relation to replacement transmission network assets and in relation to transmission investment as

3 cl. 5.6.5C(2) National Electricity Rules.
4 cl. 5.6.5C(4) National Electricity Rules.
5 cl. 5.6.5C(5) National Electricity Rules.
6 cl. 5.6.6(y) National Electricity Rules.

referred to in the definition of new network investment and referred to in clauses 5.6.2A(b)(6), 5.6.5C(a)(2), (4) and (5) and 5.6.6(y)(1) for the purposes of determining whether the amounts:

(1) in relation to replacement transmission network assets;

(2) of less than $5 million referred to in clause 5.6.5C(a)(2);

(3) of less than $5 million referred to in clause 5.6.5C(a)(4);

(4) of less than $5 million referred to in clause 5.6.5C(a)(5);

(5) of less than $35 million referred to in clause 5.6.6(y)(1); and

(6) in excess of $5 million in relation to transmission investment as referred to in the definition of new network investment,

(each a cost threshold) need to be changed to maintain the appropriateness of the cost thresholds over time by adjusting those cost thresholds to reflect any increase or decrease in the input costs since 1 July 2009 in respect of the first cost threshold review and since the date of the previous review in respect of every subsequent cost threshold review.

(b) Each cost threshold review is to be commenced by the AER on 31 July of the relevant year, with the first such review to be initiated in 2012.

(c) Within 6 weeks following the commencement of a cost threshold review, the AER must publish a draft determination outlining:

(1) whether the AER has formed the view that any of the cost thresholds need to be amended to reflect increases or decreases in the input costs to ensure that the appropriateness of the cost thresholds is maintained over time;

(2) its reasons for determining whether the cost thresholds need to be varied to reflect increases or decreases in the input costs;

(3) if there is to be a variation in a cost threshold, the amount of the new cost threshold and the date the new cost threshold will take effect; and

(4) its reasons for determining the amount of the new cost threshold.

(d) At the same time as it publishes the draft determination under paragraph (c), the AER must publish a notice seeking submissions on the draft determination and which specifies the period within which written submissions can be made (the cost threshold consultation period) which must be no less than 5 weeks from the date of the notice.

(e) The AER must consider any written submissions received during the cost threshold consultation period in making its final determination in respect of the matters outlined in paragraph (c).

(f) The final determination must be made and published by the AER within 5 weeks following the end of the cost threshold consultation period (the cost threshold determination).

4 Invitation for submissions

Interested parties are invited to review the matters raised in this draft determination and provide written submissions. Interested parties are also welcome to provide submissions on relevant issues not discussed in the paper.

The AER prefers that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will therefore be treated as public documents unless otherwise requested and all non-confidential submissions will be placed on the AER's website. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is subject of the confidentiality claim
- provide a non-confidential version of the submission, in addition to a confidential one (the AER does not accept documents or parts of documents which are redacted or 'blacked-out')

The AER does not generally accept blanket claims for confidentiality over the entirety of the information provided and such claims should not be made unless all information is truly regarded as confidential. The identified information should genuinely be of a confidential nature and not otherwise publicly available.

For further information regarding the AER's use and disclosure of information see the ACCC/AER Information Policy, October 2008, which is available on the AER's website.

Any submissions must be received by close of business 16 October 2012. Submissions should be titled 'Submission on draft determination - Cost Threshold Review for the Regulatory Investment Test for Transmission' and should be addressed to:

Mr Tom Leuner
General Manager
Wholesale Markets
Australian Energy Regulator
GPO Box 520
MELBOURNE VIC 3001
Email: aerinquiry@aer.gov.au (please include the words "attention Tom Leuner" in the subject of your email)

5 Draft determination on changes in input costs

Clause 5.6.5E requires the AER to consider the change in the inputs costs used to calculate estimated capital costs in relation to transmission investment since 1 July 2009 to determine whether the cost thresholds should be changed to maintain their appropriateness. This section of the document outlines the AER's draft determination on whether there has been a change in input costs.

5.1 Issues paper

The issues paper proposed that indexation may be the most appropriate approach to determining whether there has been a change in input costs as it is based on historical data. If an indexation approach to assessing changes in input costs was adopted, the issues paper suggested that producer price indexes (PPIs) may be an appropriate indicator of changes in capital costs in the electricity transmission.

5.2 Submissions

Grid Australia stated that it understood the purpose of the review was to ensure that the thresholds keep pace with changes over time in the event there was significant variation in input costs. Grid Australia noted that the AEMC considered indices could be used as the basis for escalation and that market consultation should guide which is the most appropriate. Grid Australia considered that the AER should take a proportionate approach to determining whether or not to change the current thresholds. Thus, for example, to the extent there has been no material change in cost since 1 July 2009, there should be no change in thresholds.

Ergon Energy agreed with the proposed approach to assessment of the appropriateness of the cost thresholds and considered the cost thresholds should be increased to maintain their appropriateness.

Ergon Energy and Grid Australia both preferred a PPI approach to a consumer price index (CPI) approach to estimating the increase in capital costs.[7] Grid Australia considered that to minimise short term volatility, the AER should consider whether there was a material change in costs since 1 July 2009 rather than assessing cost movements.[8]

Ergon Energy stated in its submission that there has been a large increase in input costs since 1 July 2009.[9] Grid Australia submitted that there has been no material change in costs for steel and aluminium, each of which contribute 15 to 30 per cent of transmission line costs.[10] The AER considers that the divergence of views between Ergon Energy and Grid Australia highlights the variability in capital costs that TNSPs may face over time.

Ergon Energy submitted that of the PPI's presented in the issues paper 'Copper materials used in power and distribution transformers' were most relevant and should be given most

7 Ergon Energy, *Submission on the Cost Thresholds Review for the Regulatory Investment test for Transmission Issues Paper*, August 2012, p. 3; Grid Australia, *Grid Australia Submission on RIT-T Cost Thresholds*, August 2012, p.1.

8 Grid Australia, *Submission on the Cost Thresholds Review for the Regulatory Investment test for Transmission Issues Paper*, August 2012, p.3.

9 Ergon Energy, *Submission on the Cost Thresholds Review for the Regulatory Investment test for Transmission Issues Paper*, August 2012, p.4.

10 Grid Australia, *Grid Australia Submission on RIT-T Cost Thresholds*, August 2012, p. 2.

weight.[11] Grid Australia gave no advice on which specific indexes should be used or what weights they should be given.

5.3 Indexes

The AER does not propose to undertake a full scale review of precise changes in costs for TNSP projects. There are many different types of TNSP projects that face a range of different cost inputs, and to undertake a detailed review would require large quantities of information from TNSPs. The AER considers that such a process would involve an unnecessary regulatory burden on both the businesses and the regulator. The AER instead proposes to examine a broad range of possible indexes to obtain a range of values that represent a reasonable approximation of changes in costs.

In theory, by assigning appropriate weights to available indexes, it may be possible to create a composite input PPI for electricity transmission. However, determining the weights would be problematic as they are likely to vary over time and between TNSPs. Furthermore, many of the PPI indexes contain products/services that are not relevant to building transmission assets. For example, the ‘other heavy and civil engineering construction’ includes dredging, golf course construction, sewage treatment plant construction, and more than 10 other categories not likely to be related to transmission network construction.

Table 5.1 below provides a range of potentially relevant indexes.

[11] Ergon Energy, *Submission on the Cost Thresholds Review for the Regulatory Investment test for Transmission Issues Paper*, August 2012, p.4.

Table 5.1 Change in potentially relevant indexes June 2009 to June 2012

Index	Percentage change June 2009 to June 2012
CPI	8.0 per cent
Core inflation[12]	8.0 per cent
GDP chain price index	9.8 per cent
GDP deflator	10.4 per cent
GDP deflator – final consumption	7.9 per cent
GDP deflator – new engineering construction capital formation	5.6 per cent
GDP deflator – all capital formation	–0.7 per cent
PPI stage of production – final goods	5.6 per cent
PPI stage of production – final capital goods	2.3 per cent
Communication equipment manufacturing	2.9 per cent
Electric cable and wire manufacturing	17.9 per cent
Other electrical equipment manufacturing	–1.6 per cent
Copper materials in distribution transformers	13.6 per cent
Copper materials in power transformers	31.6 per cent
Road and Bridge Construction	12.3 per cent
Non-residential building construction	3.2 per cent
Building construction in Australia	4.2 per cent
Iron and steel	–13.5 per cent
Aluminium	12.9 per cent
Copper and brass	12.6 per cent
Electricity, gas, water, and waste services labour	12.8 per cent

Source: ABS[13]

12 Calculated as the average of the weighted median and trimmed mean measures of consumer price inflation.

13 ABS, Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006; catalogue number 1292.0; Producer Price Indexes, Australia, June 2012, catalogue number 6427.0, and Consumer Price Index, Australia, June 2012, catalogue number 6401.0.

For the purpose of the cost threshold determination, rather than attempt to be precise, the AER considers that it is appropriate to use the available indexes simply as a rough guide to the range of cost increases since 1 July 2009. The AER also considers that it is appropriate to give greater weight to the broader economy wide indexes. This is because they are arguably good measures of overall price movements across the entire economy, are commonly used and understood, and in the absence of a precise measures provide a reasonable proxy for changes in input costs over the period.

On this basis, the AER considers that capital input costs have likely increased by approximately 10 per cent. While some of the specific indexes have increase by far more than this (for example copper materials in power transformers) other indexes have decreased significantly or remained static (for example, iron and steel and other electrical equipment manufacturing).

Stakeholder views are sought on the analysis of indexes.

5.4 Rounding

Stakeholder views were sought on the proposed approach to the assessment of the appropriateness of cost thresholds and whether for administrative simplicity the cost thresholds should be rounded.

Grid Australia suggested that if the threshold was changed, the amended cost threshold should be rounded to the nearest million. Ergon Energy considered that the cost thresholds should be rounded to the nearest $100 000, noting that a more coarse grain is likely to adversely affect outcomes.

The AER agrees with Grid Australia that for administrative simplicity any variation of the cost thresholds to reflect changes in input costs should generally be rounded to the closest million. However, the AER considers that, unless it is shown to be inappropriate to do so through stakeholder consultation, where the approximate change in input costs results in a pre-rounded variation figure of approximately $500 000, or $1.5m, $2.5m etc (i.e. half way between two rounded figures), the cost thresholds should be rounded down rather than up. The AER considers that this approach reflects the importance of the RIT-T in ensuring transparency and competitive neutrality vis-a-vis non-network options.

5.5 Draft determination

Clause 5.6.5E requires the AER, in its draft determination, to outline whether it has formed the view that the cost thresholds need to be amended to reflect increases or decreases in input costs to ensure the appropriateness of the cost thresholds is maintained over time. If there is a variation to the cost thresholds, the draft determination must outline the amount of the new cost threshold and the date the new cost threshold will take effect. This section sets out the AER's draft determination on these matters.

As noted above, the AER considers that input costs have likely increased by approximately 10 percent.

On this basis, the $5 million threshold would move to approximately $5.5 million. Given the AER's proposed approach to rounding, the AER proposes that the $5 million threshold remain at $5 million.

On the basis of an approximate10 percent increase, the $35 million threshold would increase to approximately $38.5 million. Given the proposed approach to rounding, the AER proposes that the $35 million threshold be changed to $38 million.

The AER notes that when it reviews the thresholds in three years, it will use the un-rounded estimates as the "base" from which to assess changes (i.e. the percentage change in input costs will be applied to the $5.5 million and $38.5 million figures, not the $5 million and $38 million figures).

The AER's draft determination is that:

- The $5 million threshold referred to in clauses 5.6.5C(a)(2), (4) and (5), in relation to replacement transmission network assets and in relation to transmission investment as referred to in the definition of new network investment not be changed

- The $35 million threshold in clause 5.6.6(y) be changed to $38 million

The AER proposes that the revised cost threshold for clause 5.6.6(y) take effect on 1 January 2013.