



EnergyAustralia[®]

Transmission Network Replacement and Reconfiguration: Response to AEMC Draft Determination

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Transmission Network Replacement and Reconfiguration: Draft Determination

EXECUTIVE SUMMARY	3
1 INITIAL COMMENTS	4
2 PAYMENT FOR COMPENSATION AS A RESULT OF A RECONFIGURATION	4
2.1 Support for Commission’s decision	4
3 APPLICATION OF REGULATORY TEST TO RECONFIGURATION/REPLACEMENT INVESTMENTS	5
3.1 Summary.....	5
3.2 Lack of justification to move from proposed Rule.....	6
3.3 The Regulatory Test was not designed with asset replacement or reconfiguration in mind	7
3.4 Expansion will not promote the principles of the Test	7
3.5 Difficulties in assessing replacement and reconfiguration investments under the reliability limb.....	8
3.6 Context of other reforms	10
4 THRESHOLDS AND INFORMATION REQUIREMENTS.....	10
4.1 Appropriate thresholds.....	10
4.2 Information disclosure requirements on TNSPs.....	11

Executive Summary

The circumstances specific to Stanwell cuts across most of the major reviews undertaken by the AEMC in the last 18 months. The concern for EnergyAustralia is the implications of addressing issues that cut across significant policy considerations using a small application such as that provided by Stanwell in its Rule proposal. We would ask in particular that any changes to regulatory test arrangements be considered as part of a wider discussion and potentially part of existing policy development undertaken by ERIG.

EnergyAustralia supports the Commission's decision not to proceed with changes to the Rule which would have allowed payment of compensation to third parties affected by replacement or reconfiguration of the network. Providing compensation to Stanwell for lost revenue from reconfiguration would obviously solve the problem from Stanwell's perspective, but would have significant implications if applied to the market as a whole. Opportunities for a TNSP to compensate disgruntled market participants is potentially endless and a precedent should not be established.

In response to the Rule proposal, network businesses believed there was a clear distinction between the circumstances attributed to Stanwell and routine replacement and reconfiguration works. There was concern that the proposed changes did not provide a similar delineation. Rather than address this delineation, the Commission's decided to bring replacement expenditure under the umbrella of the Regulatory Test. There has been no analysis to support this decision.

Our submission argues strongly against such a change. We question the Commission's reasoning that there is a lack of incentive to for efficient replacement investment. We are not convinced that an expansive role of the Regulatory Test is any more likely to provide more efficient investment. Nor are we convinced that any benefit from an increased regulatory obligation is likely to exceed the cost of complying with it. We note that the Regulatory Test was never designed for replacement expenditure or reconfiguration investment in mind. There will be consequential difficulty in using the market benefits or reliability limbs to justify any replacement expenditure. The proposed changes contravene the principles and purpose of the Regulatory Test. Finally, these changes seem premature without consideration in a wider policy context.

While we question the Commission's decision to make changes to thresholds as part of this Rule change, we believe that the figure suggested by the Commission is appropriate as long as it is subject to review and/or indexation.

1 Initial Comments

The circumstances specific to Stanwell cut across most of the major reviews undertaken by the AEMC in the last 18 months.

A fundamental issue that has plagued the NEM since its inception has been the right of generators when the market requires the network to be built for load. This issue is likely to be addressed as part of the review of congestion management. However, EnergyAustralia has noted in other forums that one of the difficulties with this issue is that Generators are not charged for the proportional use of the transmission network.

We also note that the Commission's review of transmission pricing will also address an important issue surrounding the allocation of revenue when an asset which was built for shared use of system is now a dedicated line for a generator.

Finally, the work undertaken by the Commission and other policy makers regarding the Regulatory Test has obvious interrelationships – particularly when applying the purpose of the Test to the different categories of new transmission investment: constructing a new asset; augmenting an existing asset; reconfiguring an old asset and replacing an asset.

The concern for EnergyAustralia is the implications of addressing issues that cut across significant policy considerations using a small application such as that provided by Stanwell in its Rule proposal.

We do not begrudge Stanwell its opportunity to raise its issues in light of these policy considerations. However, the large policy implications of any decision made by the Commission require that the issues raised must be viewed in a wider context. To address these significant issues in the context of Stanwell's predicament is equivalent to using a sledgehammer to crack a nut.

We would ask in particular that any changes to regulatory test arrangements be considered as part of a wider discussion and potentially part of existing policy development undertaken by ERIG and take into account the issues distributors face with the application of the test.

2 Payment for compensation as a result of a reconfiguration

2.1 Support for Commission's decision

EnergyAustralia supports the Commission's decision not to proceed with changes to the Rule which would have allowed payment of compensation to third parties affected by replacement or reconfiguration of the network.

As we noted in the first round of consultation, providing compensation to Stanwell for lost revenue from reconfiguration would obviously solve the problem from Stanwell's perspective, but would have significant implications if applied to the market as a whole. It is difficult to see how to draw the line between Stanwell and an incumbent generator who loses revenue due to a network reconfiguration, even if the reconfiguration provides net market benefits.

The number of opportunities for a TNSP to compensate disgruntled market participants (retailers and customers as well as generators) is potentially endless and a precedent should

not be established. We agree with the decision of the Commission that “[n]etwork users that are considering a long term investment that is reliant on firm access should negotiate this access with the TNSP and any costs factored into the decision”¹.

We disagree with Stanwell’s contention that the Rule change is distinct from issues surrounding firm access for generation². It is our understanding from information provided to date that the Kareeya Power Station is connected to the shared network at three different points. As a result of reconfiguration, Stanwell will still be connected to the shared network. However its connection will be at one point, not three. Stanwell believes it should be compensated for the loss of its pre-existing “right” to evacuate power at three different connection points and that compensation should be paid for by customers (who currently pay for the existing connections to Stanwell).

While there are commercial outcomes for Stanwell, the TNSP and its customers should not be liable for these commercial outcomes. On the contrary, a TNSP does not receive revenues from generators who may have benefited commercially from a network reconfiguration to meet reliability requirements.

In respect of calculation of lost “Black Start” revenue, a TNSP would be required to calculate the long term impact of a short term contract with Stanwell against any benefit to another market participant being awarded a contract in Stanwell’s stead. We understand that the terms and consideration for such contracts are not publicly available. The net market benefit of one Black Start source over another in itself would involve complex calculation and be subject to interpretation.

Finally we reiterate our position that Stanwell has the opportunity to secure a replacement to the existing connection, which will come at a cost to Stanwell.

3 Application of Regulatory Test to reconfiguration/replacement investments

3.1 Summary

In our submission to the Rule proposal, we noted our concern that the proposed definition of reconfiguration could be subject to a very broad interpretation, such that all significant replacement projects may fall under the definition of “modifying the technical capabilities of the line³”. This definition would run contrary to ETNOF’s statement that network augmentation and reconfiguration can be clearly distinguished from network replacement⁴.

ETNOF also notes that the circumstances in Stanwell’s case are rare and are not representative of more common reconfigurations⁵. VENCORP believes the circumstances are sufficient to warrant an enhancement to the network and would therefore be caught under the definition of network augmentation under the current Rule⁶.

Both Stanwell and the AEMC accepted the points raised in the above submissions, but came up with the wrong conclusions. Stanwell believed that the above statements justified its

¹ AEMC Draft Determination p20

² Stanwell Submission to Rule Proposal p5

³ Stanwell Rule Proposal p4

⁴ ETNOF response to Rule Proposal p2

⁵ ETNOF response to Rule Proposal p3

⁶ VENCORP response to Rule Proposal p1

existing definition⁷. Rather than acknowledge the unique nature of Stanwell's circumstance, the AEMC used the Rule change to implement a change not even the proponent asked for – to expand the Regulatory Test to include network replacement.

We don't know how either Stanwell or the AEMC came to these conclusions based on the submissions provided. Either the AEMC has misinterpreted the submissions or has used the Rule change to promote an amendment that is outside the scope of the parameters of the Rule change proposal. In any case, we would ask the AEMC to review the Draft Decision in the context of the points raised below.

3.2 Lack of justification to move from proposed Rule

EnergyAustralia notes that the Commission's reasoning behind broadening the investments which are subject to the Test:

The Commission is however concerned about the lack of sufficient incentives for efficient replacement and reconfiguration investment as provided for in the Chapter 6 framework ...the Commission's concerns are regarding:

*the potential for investment distortions to arise because the Regulatory Test is only applied to new large augmentations, rather than all proposed large investments; and
a lack of incentives for TNSPs to consider alternative non-network options when proposing to replace or reconfigure the existing transmission network.⁸*

It is interesting to note that specific concerns relating to replacement expenditure were not raised in either of the AEMC's review of Regulatory Test principles or its review of the economic regulation of transmission services. We are not convinced that an expansive role of the Regulatory Test is any more likely to provide more efficient investment. Nor are we convinced that any benefit from an increased regulatory obligation is likely to exceed the cost of complying with it.

While we note the Commission's interest in providing greater incentives to consider non-network solutions when proposing to replace the transmission network, there is no analysis to support whether this will actually lead to more efficient outcomes.

The Commission notes that augmentation of the network is driven by a response to network congestion:

"As transmission capacity becomes constrained within the network, transmission businesses need to be provided with incentives to respond with investments to alleviate those constraints – a so called augmentation investment"

...there are likely to be external costs and benefits accruing to generators, distribution businesses and retailers associated with any transmission augmentation investment. In the absence of specific incentives on a transmission business to take these external benefits and costs into consideration when choosing the appropriate approach to meeting the network need, efficient investment will not ensure.⁹

We agree that a process such as the Regulatory Test is an important justification for new network augmentation investment where there are external costs and benefits associated with the investment and where there are likely to be non-network solutions available to respond to drivers of network congestion.

⁷ Stanwell response to Rule proposal p3

⁸ AEMC Draft Determination, p 13-14

⁹ AEMC "Reform of the Regulatory Test Principles" Final Rule Determination p18

There is not the same justification for replacement expenditure.

We agree with ETNOF's comments that network replacement is "concerned with ensuring the continued provision of pre-existing transmission services¹⁰". Replacement expenditure is not subject to the same drivers as augmentation and does not have the same inter-relationship with external costs and benefits. The driver for investment is not driven by network congestion but is dependant primarily on age and condition of the existing assets. Because the investment is already made, there is unlikely to be any change in external benefits and costs resulting from a like-for-like replacement.

The most common alternative to replacing an asset is not a non-network solution but deferring the replacement with consequential impacts on reliability and operating cost. Forecast replacement expenditure is therefore more consistent across the network and less dependant on specific geographical or load nuances. Forecast replacement expenditure are therefore more capable of scrutiny by the regulator at the beginning of a regulatory period. The addition of a further regulatory obligation to ensure efficient investment (by way of a Regulatory Test) is unlikely to provide any net benefit compared to the cost of regulatory obligation.

There is also a quantum of difference in the application of non-network solutions to replacement. In our experience the chief benefits of non-network solutions have arisen from deferral of augmentation investment, which requires relatively small investment over a short time horizon. Permanent avoidance of replacement, if possible, would require in most cases a much larger quantum of non-system capacity..

In summary, we question the reasoning that there is a lack of incentive to for efficient replacement investment. All TNSPs are regulated and under the economic regulatory framework investment programs are scrutiined by the AER. There is a strong argument that the regulatory framework provides an appropriate scrutiny of the efficiency of the replacement expenditure and incentives to minimise the costs of such investments. There is no evidence to support the application of the Regulatory Test to augmentations rather than replacements is likely to distort investment decisions.

3.3 The Regulatory Test was not designed with asset replacement or reconfiguration in mind

As we note above, augmentation and replacement works have very different drivers and therefore different incentive mechanisms to ensure the investment is efficient. This is probably why the ACCC never designed the Regulatory Test to apply to replacement expenditure:

"The ACCC is of the view that clauses 5.6.6 and 5.6.6A require that the regulatory test be applied to that part of an investment that augments a network. It is not intended to apply to replacement and refurbishment expenditure"¹¹.

Given the differences between augmentation and replacement expenditure, it seems implausible that the Regulatory Test can be expanded to include replacement expenditure without changing any attributes of the Test itself.

3.4 Expansion will not promote the principles of the Test

EnergyAustralia notes that the Commission's most recent changes to the Regulatory Test promoted the NEM Objective by providing greater certainty for NSPs in undertaking the test

¹⁰ ETNOF Response to Rule proposal p3

¹¹ ACCC Review of the Regulatory Test for Network Augmentations 2004, p31

meaning “NSPs can have greater confidence in the test and how it should be applied¹²”. It also noted:

“...the Commission considers that the objectives of economic efficiency, predictability, consistency, transparency competitive neutrality and proportionality are likely to be reflected... in the actions of those parties undertaking the Test¹³”

We believe that the proposed Rule will not promote the principles of predictability, consistency or economic efficiency. Instead, the Rule change will create a number of inconsistencies which cannot be justified:

- The Augmentation threshold in the Rules is can be varied by the AER whereas replacement threshold is set by AEMC in Rules;
- Augmentation and replacement thresholds are different;
- Regulatory Test will apply to transmission replacement but not distribution replacement;
- Large replacement projects are to be assessed by the Regulatory test, which forms part of an ACCC decision which specifically states the Regulatory Test was never intended to apply to replacement.

We also agree with ETNOF’s assessment that expanding the Test to include replacement would result in considerable additional regulatory burden upon the TNSP¹⁴.

3.5 Difficulties in assessing replacement and reconfiguration investments under the reliability limb

Reliability limb was built on the concept of augmentation not replacement

As noted above, the Regulatory Test has been designed for the purposes of network augmentation. This can be seen in the reliability limb of the test where the proposed investment “...is necessitated principally by inability to meet the minimum network performance requirements set out in schedule 5.1 or in relevant legislation, regulations or any statutory instrument of a participating jurisdiction¹⁵”.

This definition works well for network augmentation where the utilisation of the network in the absence of a response, is likely to threaten the TNSP’s ability to meeting minimum network reliability or performance requirements. Many of these requirements are deterministic and it is relatively easy to link the proposed investment (and alternatives) with the deterministic requirement

The application of the reliability limb is more tenuous when applied to asset replacement. Individual assets require replacing when the condition or age of the asset increases the risk of failure. However the decision to replace is one of engineering judgement than compliance. There is no standard, for instance, that suggests that all transformers be less than 40 years old.

It would therefore be difficult to directly attribute any replacement project as being necessitated principally by an inability to meet minimum network performance requirements. As a result most replacement expenditure would need to justify expenditure under the market benefits limb.

¹² AEMC Review of Regulatory Test Principles: Final Determination p 93
¹³ AEMC Review of Regulatory Test Principles: Final Determination p 93
¹⁴ ETNOF Response to Rule proposal p3
¹⁵ National Electricity Rules, Chapter 10

For the reliability limb to apply to replacement expenditure, either the definition would have to be explicit or the Regulatory Test would have to be substantially changed.

Undertaking the Regulatory Test under the reliability limb (if allowed)

If the intent of the Commission is to limit network replacement to the reliability limb of the Test, we would adopt a process similar to what has already been applied in Powerlink's case. We note in the ETNOF submission:

"Powerlink has assets which are at the end of their technical life and are in need of replacement. As part of considering the scope of the replacement, Powerlink considered its other obligations in terms of supplying load. Powerlink assessed that a different network configuration will meet its obligations at a lower cost to consumers than a "like for like replacement"¹⁶.

We disagree with Stanwell's position that an assessment of a new investment under the reliability limb of the Regulatory Test would necessitate expert engineering and economic input to assess the impact on generators as a result of the new investment¹⁷. This is because the reliability limb assumes benefits are deemed to overwhelmingly relate to meet reliability targets¹⁸. Therefore the reliability limb focuses on the costs of meeting the reliability targets, not on the net benefits of the wider market.

In its review of Regulatory Test Principles, the AEMC was required to assess whether the reliability limb should be expanded to investigate wider market implications in the context of a reliability augmentation if these were potentially significant. In response the Commission noted that the proposal:

"...does raise quite a significant conceptual difficulty, however because it represents a hybrid between a cost-benefit analysis (CBA) and a cost-effectiveness analysis (CEA). As currently formulated, the reliability limb of the Test is a CEA – it is assumed that the reliability benefits of the alternative projects are identical, so that only the costs of the alternative projects must be compared. In effect [the proposed approach] may enable the proponent to "pick and choose" between alternative investment options, by assuming that the reliability benefits of different projects are the same, but the market benefits are not"

"...[these conceptual difficulties] would need to be explored in depth, and given also ERIG's terms of reference specifically in relation to integrating the two limbs of the Regulatory Test as part of a single Project Assessment and Consultation..."¹⁹

We would therefore argue that if the Commission's intent was to not only expand the application of the Test, but also to expand the application of the reliability limb of the Test, this should be subject to a more detailed assessment and focussed consultation.

Application under the market benefits limb

We believe it would be very difficult to justify any replacement expenditure under the market benefits limb of the Regulatory Test. Any such assessment would involve an elaborate consideration of loss of load impact of replacing or not replacing the target network elements. In addition it is likely to also evaluate non-network alternatives using a similar approach.

¹⁶ ETNOF Response to Rule proposal p3

¹⁷ Stanwell response to Rule proposal p6

¹⁸ AEMC Regulatory Test Principles, p35

¹⁹ AEMC Reform of Regulatory Test Principles: Final Determination p41

Based on the above observations EnergyAustralia submits:

1. The market implications that Stanwell suggest should be included when considering new investment would not be considered in an assessment under the reliability limb;
2. If replacement or reconfigurations were included in an assessment under the reliability limb of Regulatory Test, the outcome is unlikely to differ from what Powerlink has proposed;
3. Including reconfigurations in the Regulatory Test process would therefore not meet Stanwell's intended outcomes;
4. Changing the reliability limb of the Test to allow for wider market implications is a considerable change to existing arrangements and should be considered as part of a wider review.

3.6 Context of other reforms

AEMC noted the wider implications for proposed changes to principles underlying the Regulatory Test principles rule change including other reviews which may also impact the future application of the Regulatory Test. These reviews include:

- Rules for the regulation of electricity transmission revenue and prices;
- Last resort planning power Rule proposal;
- Transmission network congestion management review;
- Energy Reform Implementation Group.

In particular, the Commission noted that "... the purview of its deliberations are necessarily limited and delimited from those of ERIG"²⁰. While the proposal by Stanwell was not included in the range of policy initiatives that integrated with the Commission's review of Regulatory Test Principles, we believe the implications from the Commission's current Draft Determination to be as significant as any other policy initiative currently taking place.

We therefore believe that such a significant change should be considered in the wider context of other reform initiatives, rather than focussed on the circumstance raised by Stanwell.

4 Thresholds and Information requirements

4.1 Appropriate thresholds

We are concerned at the apparent arbitrary nature of the Commission's decision to review the appropriateness of the threshold for new large investments under this rule proposal, particularly in light of the decision not to address the threshold issue in the context of the MCE's Rule proposal on Regulatory Test principles.

Nevertheless, the increase in the threshold to \$35m limit will require the Regulatory Test to be applied to any major sub transmission substation reconstruction and to all major cable replacement projects involving more than about 8km of double circuit underground construction.

²⁰ AEMC "Reform of Regulatory Test Principles" Final Determination, p17

The original thresholds for augmentation projects have not been reviewed since they were set in 1999. The Rule should provide for any threshold to be subject to a regular review and updated regularly. Ideally, the proposed threshold should be also increased to provide a reasonable threshold over the period between changes. If the threshold is to be reviewed regularly and/or indexed, then the \$35m established by the Commission is not too onerous.

It is noted that the proposed wording for replacement projects sets the limit on the estimated value of the project. This is an improvement over the augmentation threshold where the limit is based on actual spend, with no provision to account for cost increases.

4.2 Information disclosure requirements on TNSPs

EnergyAustralia wishes to clarify, in response to the Commission's statement that the "Regulatory Test currently applies to large new transmission investments in excess of \$10 million²¹". The Regulatory Test must also be applied to small transmission assets as part of the information included in the Annual Planning Report, see clause 5.6.2A(5). In relation to all DNSP augmentations, clause 5.6.2(f) requires that economic analysis of possible options to be carried out to identify options that satisfy the Regulatory Test. The Regulatory Test therefore also applies to all TNSP and DNSP augmentations, large and small.

²¹ AEMC Draft Determination p18