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Australian Energy Market Commission

## **RULE DETERMINATION**

# **PARTICIPANT DEROGATION - FINANCEABILITY OF ISP PROJECTS (TRANSGRID)**

### **PROPONENT**

TransGrid

8 APRIL 2021

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# **RULE**

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## ABOUT THE AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

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## SUMMARY

### **The Commission's final determination**

1 On 1 October 2020, the Australian Energy Market Commission (AEMC or Commission) received a rule change request from TransGrid. It sought an exception to the applicability of the rules in order to improve the financeability of its share of Integrated System Plan (ISP) projects. This exception from the rules was in the form of a participant derogation, meaning that it would only apply to TransGrid. Financeability refers to the willingness of investors to extend equity or debt to a business to finance its activities.

2 In accordance with section 102 of the National Electricity Law (NEL), the Commission has made this final rule determination in relation to TransGrid's proposed participant derogation. The Commission has determined not to make the proposed participant derogation.

3 The Commission's final rule determination not to make the proposed participant derogation is the same as its draft determination.

4 The Commission has made its final determination following consideration of stakeholder submissions and additional advice from its consultant CEPA. Following this consideration, the Commission remains of the view that the proposed participant derogation does not promote the National Electricity Objective (NEO). The Commission's reasons for making its draft rule determination therefore remain applicable to its final determination and are summarised below.

### **Reasons for the Commission's final determination**

5 TransGrid asserts that the rules create a barrier to obtaining finance for its share of ISP projects and requests that cash flows be brought forward by providing for a nominal rate of return on an unindexed RAB and allowing for depreciation as incurred.

6 The Commission recognises the importance of efficiently delivering ISP projects in a timely manner, consistent with meeting the NEO. However, based on the AEMC's consultant's analysis and stakeholder feedback to the consultation paper and the draft determination, and a public forum, the Commission considers the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect).

7 TransGrid earns a rate of return allowance every year through the maximum allowed revenue. The rate of return is a forecast of the cost of funds a network business requires to fund investment in its network. This rate of return allowance is determined with reference to a benchmark efficient entity. The concept of a 'benchmark efficient entity' is used by the AER to derive the rate of return (or WACC) for an efficient service provider.

8 Overall, the benchmark efficient entity framework is intended to provide a long-term efficient return on capital. However, there is no expectation that a transmission network business, such as TransGrid, will adopt the benchmark efficient entity's capital structure – that is, the same distribution of debt and equity assumed by the AER to make up the finances of the benchmark efficient entity (currently assumed to be 60 per cent debt to 40 per cent equity).

9 Indeed, in a period of investment and expansion, it is likely that network businesses will need

to rely more heavily on finance from equity investors relative to the benchmark assumption in order to maintain the benchmark credit rating. In less capital-intensive periods, revenues may support the benchmark credit rating under a structure more reliant on debt relative to the benchmark assumption. Changes to capital structure of this nature can be considered consistent with a competitive market, in which growth is typically financed by calls on equity and recovered over time. These and other options, which are outside the regulatory framework and which can help to finance new large capital-intensive projects, would be expected to be pursued by regulated entities like TNSPs.

- 10 The Commission considers the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect). In addition, the Commission is not satisfied that the proposed rule is the best option for providing the right incentives for TransGrid and other TNSPs to invest in ISP projects now and in the future. Making the rule proposed by TransGrid would likely substantially increase costs to consumers in the near to medium term. While lower prices attributable to the low short-run marginal cost generation connecting to the grid and easing of congestion at some locations may flow through later in the life of the relevant ISP projects, the intergenerational wealth transfer caused by the proposed changes to the rules would be unlikely to be in the long-term interests of consumers, particularly given that current consumers would be paying for benefits enjoyed by future consumers.
- 11 The Commission considers that the rule change request has raised some significant issues in respect of the ISP framework, in particular in relation to the timely and efficient delivery of large transmission projects (including current ISP projects) in the NEM. These issues are broader in their scope than could be addressed by the Commission in this rule change. For this reason, the Commission is of the view that options to support the timely and efficient delivery of large transmission projects are most appropriately explored by the AEMC in a review outside this rule change process.<sup>1</sup>
- 12 In assessing the rule change request from TransGrid, the AEMC engaged CEPA to provide advice on the financeability of ISP projects. The first stage of CEPA's analysis considered whether there is a financeability issue. In the second stage, CEPA provided advice on how the AER and TNSPs could respond to an identified financeability concern. CEPA also considered the key impacts of the proposed rule on customers and investors, and the NEO more generally.
- The Commission agrees with CEPA's finding that the regulatory framework does not create a barrier to financing ISP investments including PEC*
- 13 In its rule change request, TransGrid asserts that cash flows from PEC (and many other ISP projects) will be insufficient to support 60 per cent debt funding at a BBB+ credit rating<sup>2</sup> (or indeed an investment grade credit rating at all) for an extended period. It argues that as a

1 Stakeholders should note that the Commission does not intend for the review to consider options to support ISP project specific financeability.

2 A credit rating of BBB- (on the Standard and Poor's scale) or better is considered an 'investment grade' credit rating. TransGrid is rated by Moody's which uses a different terminology. A comparison between S&P's and Moody's terminology can be found in Appendix B.

consequence, this may result in a higher cost of debt than what is suggested by the BBB+ credit rating and a TNSP may find it difficult to obtain finance that is consistent with the regulated rate of return. This claim was based on an analysis of one credit metric, the funds from operations divided by net debt ratio (FFO/net debt), and TransGrid's opinion on how a change in this metric will affect their overall credit rating. The FFO/net debt ratio is one of the measures used by credit rating agencies to assess the level of financial risk of debt funding.

14 However, the analysis prepared by CEPA for the Commission does not support this claim. As noted by CEPA, the proponent has argued for a substantial rule change based on the impact of its proposed investment program of \$9 to 10 billion over the next 10 years<sup>3</sup> on one credit metric — the FFO/ net debt ratio. In practice, rating agency assessments are more sophisticated, reflecting other financial credit metrics and a range of qualitative factors including the quality of the entirety of the regulatory framework.

15 CEPA's analysis shows that ISP investments are unlikely to prompt a rating downgrade to below investment grade for a business financed at the AER's notional gearing, given that business's expected profile of ISP investments. By modelling the credit scoring framework used by rating agencies using the full range of different quantitative metrics and qualitative factors, CEPA's analysis shows that a notional TNSP would be able to maintain an investment grade rating with this assumed investment profile.

16 Further, while CEPA's analysis supports TransGrid's claim that performance against the FFO/net debt ratio would likely improve if the proposed rule was made, CEPA also shows that the notional entity with an investment profile consistent with TransGrid's share of ISP projects would be able to achieve a similar improvement in this ratio by using a gearing level of 55-58 per cent.

17 Based on this analysis, the Commission does not consider that the regulatory framework is creating a barrier to TransGrid financing its share of current ISP projects. The Commission also notes CEPA's finding that the effect of the proposed rule on the ability of the notional entity to finance these projects is not likely to be material.

*There are options available to TransGrid outside of the regulatory framework to help it manage financeability*

18 In its rule change request, TransGrid also asserts that, under the current rules, there is limited scope for the AER to modify its approach to change revenue profiles to meet financeability concerns such as those identified. While CEPA's analysis concurs with this conclusion, CEPA also identifies actions that the notional entity could take outside of the regulatory framework to manage financeability. These include:

- reducing the actual gearing below the notional level in order to improve financial ratios, and

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<sup>3</sup> TransGrid, rule change request, p. 9.

- options for alternative financial instruments, that could lower cash interest costs. This includes inflation linked bonds, or other financial instruments such as hybrid securities and notes.

- 19 In its rule change request, TransGrid suggests that reducing its gearing would be unacceptable on the basis that it would be inconsistent with the design of the regulatory framework (specifically, the assumptions used to set the allowed rate of return).<sup>4</sup>
- 20 The Commission notes TransGrid’s submission but as explained by the AER in its submission to the consultation paper, the purpose of the benchmark efficient entity gearing level is to estimate an allowed rate of return that is commensurate with the efficient financing costs of the regulatory investments.
- 21 Importantly, there is no obligation on TransGrid (or other network businesses) to adopt the capital structure assumed by the AER for the purposes of the Rate of Return Instrument (RORI). In practice, TNSPs are free to choose a capital structure that suits their circumstances over time.

#### **BOX 1: THE EFFICIENT BENCHMARK AND ACTUAL FINANCING PRACTICES**

Economic regulation of energy network assets is based on a hypothetical benchmark efficient firm. This approach ensures that network businesses have incentives to finance their business as efficiently as possible. This is important in the context of the revenue and pricing principles set out in the NEL. Under these principles, network businesses should, among other things, be afforded a reasonable opportunity to recover at least efficient costs. In addition, businesses should be provided with effective incentives in order to promote economic efficiency.

Businesses are incentivised to seek out economic efficiencies by being rewarded if they can achieve lower costs of equity and debt than assumed for the benchmark efficient entity and penalised if their cost of financing is higher than the regulated rate of return.

This also applies to the financing of assets. In particular, transmission network service providers are not required to use the efficient benchmark assumptions the AER uses to derive the regulated WACC. Indeed, they are incentivised to outperform the regulated WACC by being able to keep any efficiency gains they realise.

Source: AER, rate of return instrument, 2018.

- 22 Based on the analysis provided by CEPA, the Commission considers that it is reasonable to assume that both existing investors, and potential future investors, in Australian energy networks would expect gearing levels to temporarily fall below the notional level in the context of significant RAB growth. Further, CEPA points out that the market evidence does not support the proponent’s argument that infrastructure in Australia cannot be financed under the current regulatory settings. To support this view, they noted that there is

<sup>4</sup> TransGrid, rule change request, p. 15. In addition, in its submission to the consultation paper, TransGrid also states that “...the regulatory framework needs to allow us to...Finance our functions in line with benchmark efficient entity gearing level”. TransGrid, submission to the consultation paper, p. 3.

continued global demand from investors for high quality assets such as energy networks in Australia and there is recent evidence of debt and equity financing of TNSPs which anticipated ISP investment under the current regulatory arrangements.

*TransGrid's proposed derogation does not promote the long term interests of consumers*

- 23 Based on current information, the Commission considers the regulatory framework does not create a barrier to financing TransGrid's share of current actionable ISP projects (including Project EnergyConnect). The Commission considers that the rule change request has raised some significant issues in respect of timely investment in transmission, including ISP projects. While the Commission considers these issues merit further consideration, it notes that the scope of these issues is beyond what can be accommodated in this rule change process and it does not consider that the rule proposed by the proponent would address the issues identified.
- 24 The Commission may only make a rule if it is satisfied the rule will, or is likely to, contribute to the achievement of the NEO. The Commission is not satisfied that the proposed participant derogation will, or is likely to, contribute to the achievement of the NEO. The Commission's reasons are as follows:
- **Risk allocation:** By applying depreciation as incurred and an unindexed RAB to TransGrid's share of current ISP projects, the proposed rule would transfer some risks — in particular, inflation risk and completion risk — from TransGrid to consumers who are not best placed to manage these risks.
  - **Regulatory framework:** The proposed rule would represent a significant departure from established principles of regulation in Australia. It has the potential to undermine the AER's role in administering the regulatory framework, introduce substantial regulatory uncertainty to TNSPs not covered by this rule change and distort the achievement of efficient outcomes in both the NEM and financial markets by tilting the playing field towards TransGrid and its ISP projects relative to other TNSPs and non-network providers.
  - **Regulatory compliance and administration costs:** The proposed rule would significantly increase complexity in the application of the regulatory framework by both requiring the management of alternative classes of assets within the regulatory framework and ensuring the RORI appropriately applies for both nominal and real rates of return. The likely need to create a second RAB for TransGrid for its share of ISP projects to address these issues would also result in the AER incurring increased administrative costs.
  - **Efficient operation of electricity services:** The proposed rule is unlikely to promote efficient operation of the power system relative to current arrangements. Specifically, the depreciation component of the proposed rule could weaken incentives for TransGrid to deliver projects on time by providing it with income from a project prior to its completion. This is unlikely to be in the long-term interests of consumers.
  - **Efficient investment in electricity services:** The economic regulatory framework currently already provides TransGrid with a reasonable opportunity to recover its efficient financing costs, and therefore currently supports efficient investment in electricity

services. The application of the proposed changes to TransGrid's share of ISP projects only is likely be detrimental to efficient investment in electricity services by tilting the playing field towards TransGrid and away from other proponents and similar ISP projects, and weaken investment incentives on onshore and offshore equity investors seeking capital growth by removing the linkage to, and hence protection from, inflation. Removing the RAB indexation could also cause a financeability issue in the future as the value of the RAB stops being indexed by inflation every year.

- **Impact on consumers:** While being NPV neutral from TransGrid's perspective, the proposed rule would result in payments for TransGrid's share of ISP projects being weighted towards the early period of an asset's life, substantially increasing costs for consumers in the near to medium term, with lower prices later in the life of the asset. The proposed rule would also create an intergenerational wealth transfer between current and future consumers, remove the link between the inflation component of network charges and the inflation component of the income of users of electricity and move away from the current alignment between the profile of revenues to TransGrid for its share of ISP projects with the timing of benefits to consumers in respect of these projects.

**The AEMC recommends a review of options to support the timely and efficient delivery of transmission projects**

- 25 Careful consideration of the information provided by the proponent, stakeholders and CEPA has informed the Commission's view that there is no barrier in the regulatory framework to TransGrid financing its actionable and future ISP projects, including PEC.
- 26 The Commission considers, however, that the rule change request has raised some significant issues in respect of the ISP framework, in particular in relation to the timely and efficient delivery of large transmission projects (including current ISP projects) in the NEM. For example, while there are options available to TransGrid under the current regulatory framework to help it manage financeability, the ultimate decision on whether to invest in a transmission project — including ISP projects — rests with transmission network service providers based on what is in the best interests of their shareholders.
- 27 Further, the Commission's assessment of TransGrid's rule change request is based on information at hand, including the expected pipeline of ISP projects, the current regulatory framework applied by the AER and the methodologies used by credit rating agencies to assess financeability. Given the uncertainty around future ISPs, jurisdictional initiatives to incentivise the creation of renewable energy zones and the AER's program of work, including in relation to the delivery of large transmission projects and the 2022 RORI, it is likely to be timely to consider a broader review of how the efficient and timely delivery of actionable ISP projects can be secured.
- 28 Before making any changes to the Rules to address potential issues in respect of the efficient and timely delivery of large transmission projects, it will be important to understand the causes of an issue. If the cause relates to matters that fall under the NEL or within jurisdictional regulatory instruments, a rule change may not be the most, or the only, effective way to address the issue. An AEMC review will enable the Commission to consider a



suite of possible measures and to recommend broader changes outside of the Rules framework, if necessary and appropriate.

- 29 For these reasons, the Commission intends to commence a broader review, together with the other market bodies, to consider options to support the timely and efficient delivery of large transmission projects that are in the long-term interests of consumers, recognising that the nature of transmission investment is invariably changing. The scope of the review will include matters such as financing, regulatory and governance issues in the context of the overall economic regulatory framework for network businesses.<sup>5</sup>

### **Background to TransGrid’s rule change request**

- 30 TransGrid asserts that in the course of its assessment of PEC, it identified that there are features of the regulatory framework that have significant implications for the financeability of large- scale projects with long asset lives, such as PEC.
- 31 TransGrid considers that the financeability issue is due to the regulatory framework deferring revenue recovery for capital investment costs until later in the asset’s life. Specifically, it considers that the deferral of revenue recovery under the current rules results in a long period early in a large asset life where the revenue allowance will fall substantially short of covering the efficient costs of financing the project during that period.
- 32 TransGrid asserts that this mismatch creates a significant barrier to securing the capital necessary to finance the project, substantially undermines the incentive to invest and so risks denying consumers the benefits of the projects concerned.
- 33 To address this issue, TransGrid has proposed the removal of RAB indexation and a move to as incurred depreciation for its current share of ISP projects. It considers that by removing RAB indexation and moving to depreciation as incurred it could, with prudent capital management, achieve an investment grade rating sufficiently early to overcome the barrier to securing the capital necessary to proceed with these projects.

### **Related rule change request**

- 34 ElectraNet also submitted a rule change request in the form of a participant derogation seeking changes to the NER to bring forward cashflows in respect of its share of ISP projects. The final determination in relation to ElectraNet’s rule change request was published on the same date as this determination and is available on the Commission’s website.

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<sup>5</sup> Note, the Commission does not intend for the review to consider future arrangements to support project specific ISP financeability.

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# 1 INTRODUCTION

On 1 October 2020, the Australian Energy Market Commission (AEMC or Commission) received a rule change request in the form of a participant derogation from TransGrid in relation to the financeability of its share of Integrated System Plan (ISP) projects.<sup>6</sup>

Specifically, TransGrid sought the following changes to the National Electricity Rules (NER or Rules):<sup>7</sup>

- remove indexation of the regulatory asset base (RAB), and
- require that depreciation be calculated on capital expenditure (capex) on an 'as incurred', as opposed to 'as commissioned', basis.

These changes would apply to TransGrid's share of ISP projects approved through the regulatory process (after the date of commencement of the rule) plus any actionable ISP projects for which TransGrid lodged a contingent project application with the Australian Energy Regulator (AER) after 1 September 2020 (but before the commencement date).

On 23 October 2020, the AEMC received a further rule change request (also in the form of a participant derogation) from ElectraNet in relation to the financeability of its ISP projects.<sup>8</sup> The Commission has made a final determination for the ElectraNet rule change request alongside this final determination. The rule determination for the ElectraNet rule change request can be found in a separate document specific to the ElectraNet rule change request.

The rule change request is available on the AEMC's website.<sup>9</sup>

TransGrid and ElectraNet requested that their rule change requests be expedited on the grounds that each proposed rule is an "urgent rule" under the National Electricity Law (NEL). Having considered both requests, the Commission did not consider that the rule change requests met the test for an "urgent rule" in the NEL.

The timeframe for this rule change request is outlined in Table 1.1 below.

**Table 1.1: Key dates for TransGrid's rule change request**

MILESTONE	DATE
Draft rule determination	4 February 2021
Submissions on draft rule	18 March 2021
Final rule determination	8 April 2021

<sup>6</sup> ISP projects are projects to augment the transmission system identified as part of the ISP prepared by the Australian Energy Market Operator (AEMO). The project code for this rule change request is ERC0320.

<sup>7</sup> TransGrid, rule change request, pp. 6-7.

<sup>8</sup> Project code ERC0322.

<sup>9</sup> www.aemc.gov.au.

## 1.1 The rule change request

### 1.1.1 Issue the rule change seeks to address

In its rule change request, TransGrid asserted that in the course of its assessment of Project Energy Connect (PEC) (as part of the Contingent Project Application (CPA) development), it identified features of the regulatory framework that have significant implications for the financeability of large scale projects with long asset lives, such as PEC.<sup>10</sup>

TransGrid considered that the financeability issue was due to the regulatory framework deferring revenue recovery for capital investment costs until later in the asset's life. Specifically, it considered that the deferral of revenue recovery under the current rules results in a long period early in a large asset's (like PEC's) life where the revenue allowance will fall substantially short of covering the efficient costs of financing the project during that period. TransGrid claimed that this mismatch creates a barrier to securing the capital necessary to finance the project and as a result, denies consumers the benefits of the projects concerned.

TransGrid claimed that the regulatory returns set out in TransGrid's current determination, and the 2018 Rate of Return Instrument (RORI), are intended to provide a revenue allowance to enable the recovery of efficient financing costs over the life of the asset. These include an assumption of 60 percent debt funding (a level of financial risk commensurate with a strong investment grade credit rating) and a return to equity investors assuming 40 percent equity funding.

TransGrid presented analysis which it claimed confirms that cash flows from PEC (and many other ISP projects) will be insufficient to support 60 percent debt funding at a BBB+ credit rating (or indeed an investment grade credit rating at all) for an extended period. TransGrid considered that this has two implications:

- The project would require equity funding substantially in excess of the 40 percent ratio provided for in the revenue allowance, resulting in an uneconomic return to equity investors and lower than the equity returns set out in the AER's RORI (the return on additional equity would be at the regulated cost of debt), or
- The project could seek to proceed with 60 percent debt funding but this could only occur on a sub-investment grade ('junk') basis resulting in debt funding costs substantially in excess of those compensated for in the revenue allowance. This could cause serious adverse impacts to financial resilience increasing the risks borne by equity holders to significantly above the level contemplated in the AER's RORI. Further, the shortfall between compensated debt costs and those incurred at sub-investment grade would have to be borne by equity holders reducing returns to equity holders below those set out in AER's RORI.

TransGrid considered that these outcomes each created a significant barrier to securing the funding necessary to proceed with the project and substantially undermines the incentive to invest.

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<sup>10</sup> TransGrid's summary of the issue is provided in its rule change request, pp. 3-4.

### 1.1.2 Solution proposed in the rule change request

To address this issue, TransGrid proposed two changes to the NER. These are to:<sup>11</sup>

- Provide a nominal rate of return on an unindexed RAB for actionable ISP projects; and
- Remunerate capital expenditure for actionable ISP projects as it is incurred.

TransGrid considered that by making these changes it could, with prudent capital management, achieve an investment grade rating sufficiently early to overcome the barrier to securing the capital necessary to proceed with these projects.

The rule change request from TransGrid applied to its share of transmission projects identified in the ISP as actionable now and in the future. The rule change request was in the form of a participant derogation from Chapter 6A of the NER.

TransGrid noted that, at this time, it is the only transmission network service provider (TNSP) being required to undertake investments the scale of PEC and HumeLink. It noted that if this issue were to arise for other TNSPs at some point in the future, a broader consideration of the issue would not be prejudiced in any way by its rule change request.

In practice, the proposed rule, if made, would have the effect of:

- requiring the AER to roll forward the RAB for the proponent's share of all actionable ISP projects, undertaken by TransGrid now and in the future, without indexation (this removes the need for the AER to make a subsequent negative inflation adjustment to prevent double compensation for inflation), and
- requiring the AER to calculate regulatory depreciation on an 'as incurred' basis rather than on an 'as commissioned' basis for the proponent's share of the ISP projects now and in the future.

## 1.2 The rule making process

On 5 November 2020 the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request.<sup>12</sup> A consultation paper identifying issues for consultation was also published. Submissions closed on 3 December 2020.

The Commission received 22 submissions as part of the first round of consultation.<sup>13</sup> The Commission considered the issues raised by stakeholders in submissions and these issues are discussed and responded to in the relevant section of the draft rule determination and are summarised in this final rule determination.

On 4 February 2021 the Commission published a draft rule determination to not make the proposed participant derogation. The Commission considered the issues raised by stakeholders in submissions to the consultation paper in making its draft rule determination.

<sup>11</sup> TransGrid provides an overview of the proposed solution to the issue in its rule change request, pp. 6-7.

<sup>12</sup> This notice was published under s.95 of the National Electricity Law (NEL).

<sup>13</sup> Submissions are available on the AEMC website: [www.aemc.gov.au](http://www.aemc.gov.au).

These issues were discussed and responded to in the relevant section of the draft rule determination and are also summarised in this final rule determination.

The Commission invited submissions from stakeholders on its draft rule determination by 18 March 2021. Thirteen submissions were received.<sup>14</sup> The Commission has considered the issues raised in these submissions in making this final determination. These issues are discussed and responded to in Chapters 4 to 6 of this final rule determination.

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<sup>14</sup> These submissions are available on the project page at: <https://www.aemc.gov.au/rule-changes/participant-derogation-financeability-isp-projects-transgrid>

## 2 BACKGROUND

The Australian Energy Market Operator's (AEMO's) 2020 Integrated System Plan (ISP) proposes a suite of major projects designed to benefit consumers by reducing energy costs and improving system performance.<sup>15</sup> In New South Wales and South Australia, these projects include major investments in transmission infrastructure. These, and future, ISP projects are the subject of TransGrid's rule change request.

The purpose of this chapter is to provide background relevant to the TransGrid rule change request. Specifically, this chapter describes:

- the ISP and what projects are covered under the rule change request, and
- the economic regulatory framework applied to transmission businesses and how financeability fits in.

### 2.1 The movement towards targeted transmission investment in the NEM

The ISP, prepared by AEMO, is a whole-of-system plan that efficiently facilitates power system development in the long-term interests of consumers of electricity. It serves a regulatory purpose by identifying actionable and future ISP projects, as well as a broader purpose of informing market participants, investors, policy decision makers and consumers of upcoming projects that may impact investment decisions.

The first ISP was prepared by AEMO and endorsed by the Council of Australian Governments (COAG) Energy Council in 2018.<sup>16</sup> It has since guided governments, industry and consumers on investments needed for an affordable, secure and reliable energy future while meeting prescribed emissions trajectories. It is updated every two years and the latest version, the 2020 ISP, was released on 30 July 2020.<sup>17</sup>

The ISP triggers processes for actionable ISP projects. Actionable ISP projects are projects that are critical to address cost, security and reliability issues, and are either already progressing or are to commence immediately after the publication of the 2020 ISP. For New South Wales, current actionable ISP projects include:<sup>18</sup>

- Victoria New South Wales Interconnector (VNI) minor. This is in progress and expected to be commissioned later in 2021.<sup>19</sup>
- Project EnergyConnect (PEC). The AER published its preliminary position on TransGrid's (and ElectraNet's) Contingent Project Applications in December 2020. The AER will

<sup>15</sup> AEMO, 2020 Integrated system plan, July 2020.

<sup>16</sup> On 29 May 2020, the Prime Minister announced the establishment of the National Federation Reform Council and the disbanding of COAG. New arrangements for the former COAG Energy Council will be finalised following the National Cabinet Review of COAG Councils and Ministerial Forums which will provide recommendations to National Cabinet. The Prime Minister has advised that, while this change is being implemented, former Councils may continue meeting as a Ministerial Forum to progress critical and/or well-developed work.

<sup>17</sup> The 2020 ISP is available on AEMO's website: [www.aemo.com.au](http://www.aemo.com.au).

<sup>18</sup> AEMO, 2020 Integrated system plan, July 2020, pp. 14-15.

<sup>19</sup> See: [www.transgrid.com.au](http://www.transgrid.com.au).



publish a decision once it is satisfied that TransGrid (and ElectraNet) have committed to proceed with the project.<sup>20</sup> The current cost estimate for the entire project is \$2.4 billion. For the New South Wales section of PEC, TransGrid's investment is expected to be \$1.9 billion.<sup>21</sup>

- Humelink. A Project Assessment Conclusions Report (PACR) is expected in June-July 2021. Final regulatory approval is expected early 2024 with Humelink in place in mid 2026.<sup>22</sup>
- Central West Orana REZ transmission link. Construction is expected to start by the end of 2022.<sup>23</sup>
- VNI West. A Project Assessment Draft Report (PADR) is expected in March 2021 and delivery by 2027–28.<sup>24</sup>

TransGrid estimates the total investment required to deliver its share of ISP projects to be between \$9 to 10 billion over the next ten years.<sup>25</sup>

The proposed participant derogation by TransGrid would capture actionable ISP projects identified in the 2020 ISP for which a contingent project application process has not been commenced or completed by the AER (as at the dates of the AEMC receiving this request), as well as any actionable ISP projects identified for New South Wales in future ISPs.<sup>26</sup>

## 2.2 The economic regulatory framework is designed to achieve efficient outcomes for consumers

This section briefly explains the design of the economic regulatory framework for TNSPs and then discusses how financeability fits within this framework.

### 2.2.1 Design of economic regulatory framework

Transmission network service providers (TNSPs) are regulated by the AER. Under the current economic regulatory framework for transmission, set out in Chapter 6A of the NEL, the AER sets TNSPs maximum annual revenue (MAR) with reference to the costs that an efficient firm would incur in building and running its transmission network.<sup>27</sup>

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20 AER, Preliminary Position, TransGrid Contingent Project, Project EnergyConnect, December 2020.

21 This is TransGrid's estimate of project costs.

22 See: [www.transgrid.com.au](http://www.transgrid.com.au).

23 AEMO, 2020 Integrated system plan, July 2020, p. 62.

24 See: [www.transgrid.com.au](http://www.transgrid.com.au).

25 TransGrid, rule change request, p. 9.

26 In October 2020, AEMO commenced work on the 2022 ISP. The initial focus is to consult and agree with stakeholders on the inputs, assumptions and scenarios that AEMO proposes to use in its 2021-22 forecasting and planning activities, including the 2022 ISP. AEMO has also commenced consultation to develop the ISP Methodology, in accordance with the AER's Forecasting Best Practice Guidelines. The Draft 2022 ISP is expected to be published by AEMO in December 2021.

27 The rate of return instrument is set outside of Chapter 6A, pursuant to Part 3, Division 1B of the NEL. The AER may make an instrument only if satisfied the instrument will, or is most likely to, contribute to the achievement of the national electricity objective to the greatest degree. In making an instrument, the AER must have regard to the revenue and pricing principles.

The economic regulatory framework for transmission is designed to allow for a return commensurate with the regulatory and commercial risks involved in providing a direct control network service with reference to a hypothetical efficient firm.<sup>28</sup> The framework does not consider actual businesses, including their capital structure, actual debt costs or profitability.

Similarly, the determination of the MAR does not consider individual investments in isolation but is concerned with the total asset base — that is, the regulatory asset base (RAB).

The regulated revenue stream is derived using a 'building block' assessment, where total revenue is the sum of four components (building blocks):

- return on capital (to compensate investors for the opportunity cost of funds invested in the business)
- return of capital (depreciation, to return the initial investment to investors over time)
- operating expenditure (opex) (to cover the day-to-day costs of maintaining the network and running the business), and
- cost of corporate taxation.

This regulatory framework aims to provide incentives for TNSPs to run efficient businesses so that consumers pay no more than necessary for safe and reliable services.

Under the current regulatory framework, depreciation is recovered by a TNSP when an asset is commissioned and not when the capital expenditure to build an asset is incurred. In other words, the framework ensures financial capital maintenance and provides for some costs to be recovered from the time customers start to accrue the benefits of the services delivered by the assets.

The current economic regulatory framework hence targets a real rate of return on an inflation indexed RAB over a regulatory period. This ensures that the purchasing power of the target return is not eroded by inflation and remains constant in real terms.

Once regulated revenue is set for a period, TNSPs have an incentive to provide services at the lowest possible cost because their returns are determined by the actual costs of providing services. If a TNSP reduces its actual costs to below the regulatory estimate of efficient costs, the TNSP retains a share of the savings in future regulatory periods. This incentive framework is embedded in the building block allowances specified under the NER.<sup>29</sup>

### 2.2.2

#### **Making investments financeable**

Financeability refers to the willingness of investors to extend equity or debt to a business to finance its activities. This includes day-to-day operations and capital investments to replace, renew and expand the infrastructure required for these activities.

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<sup>28</sup> NEL, sections 2B and 7A(5).

<sup>29</sup> Clause 6A.5.4(a)(5) of the NER.

The term financeability is not used in the NEL. However, financeability issues could potentially impact achievement of the National Electricity Objective (NEO) or the associated revenue and pricing principles (RPP).<sup>30</sup>

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<sup>30</sup> Financeability is recognised in some other jurisdictions. In England, Wales and Scotland the Gas and Electricity Markets Authority (GEMA) must have regard to the need to secure that licence holders are able to finance the activities which are subject of obligations imposed - United Kingdom, Electricity Act 1989, Part 1, section 3A(2).

## 3 FINAL RULE DETERMINATION

This chapter outlines the:

- rule making test for changes to the NER
- assessment framework for considering the rule change request
- Commission's approach to assessing the rule change request
- Commission's consideration of the proposed rule against the NEO.

Further information on the legal requirements for making this final rule determination is set out in Appendix A.

### 3.1 The Commission's final rule determination

The Commission's final rule determination is to not make the proposed rule.

The Commission has given careful consideration to the rule change request proposed by TransGrid. The Commission recognises the importance of efficiently delivering ISP projects in a timely manner, consistent with meeting the NEO.

However, based on the Commission's consideration of consultant analysis and stakeholder feedback to the consultation paper, public forum and draft determination, the Commission considers the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect).

The Commission agrees with TransGrid and other stakeholders who consider it important that ISP projects which add value for consumers are delivered in a timely manner. However, the decision about whether to invest in a specific project remains a business specific decision, based on the interests of its owners, rather than value added to consumers. Under the existing regulatory framework, it is possible for a business to choose not to proceed with a project even where the economic regulatory framework provides that business as a whole with an opportunity to recover at least its efficient costs.

The Commission is not satisfied that the making of this rule change request is the best option for providing the right incentives for TransGrid or other TNSPs to invest in individual projects now and in the future.

Options to support the timely and efficient delivery of large transmission projects that are in the long term interests of consumers is a matter that will be explored by the AEMC further outside this rule change process.

The Commission's reasons for making this final determination are set out in Section 3.4.

## 3.2 Rule making test

### 3.2.1 Achieving the NEO

Under the NEL, the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO).<sup>31</sup> This is the decision-making framework that the Commission must apply.

The NEO is:<sup>32</sup>

to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.

The Commission considers that the most relevant aspects of the NEO are the efficient investment in, and operation of, electricity services with respect to the price of electricity and the reliability and security of the national electricity system.

## 3.3 Assessment framework

In assessing the rule change request against the NEO, the Commission has considered the following matters:

- **Impact on risk allocation:** Risks should be borne by, or allocated to, parties who are in the best position to manage them and have the incentives to do so. This ultimately leads to lower costs for consumers. The Commission has therefore considered the potential for each of the two components of the proposed rule to transfer risk (for example, inflation risk) between different parties (for example, TransGrid and consumers) and whether this allocation of risk is likely to result in efficient outcomes.
- **Impact on the regulatory framework:** Future network investments in the NEM are financed in accordance with the post-tax revenue model (PTRM). This model has several characteristics: it spreads the costs of providing services to the time consumers use the services; and provides a risk adjusted rate of return over time set in the RORI for network service providers. These characteristics (or principles) have been a key feature of regulation in Australia developed over the last twenty or more years. In assessing TransGrid's proposed participant derogation, the Commission has therefore considered the impact of the proposed changes on the regulatory framework, including the implications of having different regulatory frameworks and principles apply to different transmission assets in selected NEM regions. The Commission has also considered the implications of the proposed participant derogation on the governance framework in the NEM.
- **Impact on regulatory compliance and administration costs:** In its submission to the consultation paper, the AER suggested the explicit consideration of regulatory

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<sup>31</sup> Section 88 of the NEL.

<sup>32</sup> Section 7 of the NEL.

compliance and administration costs. The Commission has therefore considered the impact of the proposed changes on the complexity of the economic regulatory framework and the regulatory compliance and administration costs incurred by the AER in applying the economic regulatory framework.

- **Impact on efficient operation of electricity services:** Timely investment in transmission projects that improve reliability and security in the NEM will support the efficient operation of the power system for the benefit of consumers. The Commission therefore notes the importance of ensuring that the economic regulatory framework does not create barriers to TNSPs delivering investments (including ISP projects) in a timely manner so that consumer benefits are not lost or deferred. In this context, the Commission has considered the impact of the proposed changes to the regulatory framework on the incentives for TransGrid to complete its share of ISP projects on time.
- **Impact on efficient investment in electricity services:** The regulatory framework is intended to provide TNSPs with a reasonable opportunity to recover at least their efficient costs of providing services. This is intended to allow these businesses to attract sufficient funds for investment, while not receiving a higher return than a firm operating in the same industry and facing similar risks would face in a competitive market. TNSPs also face various incentives to make efficient and timely investment decisions, within the constraints of investor preferences. In this context, the Commission has considered:
  - whether there is an issue with the regulatory framework which means that TransGrid is not currently being provided with a reasonable opportunity to recover its efficient financing costs; and
  - whether the changes to the regulatory framework proposed by TransGrid would better promote efficient investment relative to current arrangements. When considering whether TransGrid is able to recover its efficient costs, the Commission has had regard to the revenue and pricing principles set out in section 7A of the NEL.
- **Impact on consumers:** The Commission has considered whether there are likely to be benefits to consumers from making the proposed participant derogation and applying a different set of regulatory arrangements to TransGrid's share of current ISP projects, relative to the status quo.

### 3.4 Summary of reasons

TransGrid asserted that the rules create a barrier to obtaining finance for its share of ISP projects and requested that cash flows be brought forward by providing for a nominal rate of return on an unindexed RAB and allowing for depreciation as incurred.

The Commission recognises the importance of efficiently delivering ISP projects in a timely manner, consistent with meeting the NEO. However, based on the AEMC's consultant's analysis and stakeholder feedback to the consultation paper, public forum and draft determination, the Commission considers the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect).

The Commission considers that the rule change request has raised some significant issues in respect of the ISP framework, in particular in relation to the timely and efficient delivery of

large transmission projects (including current ISP projects) in the NEM. The Commission is not satisfied that the proposed rule is appropriate to address those issues.

Based on its own analysis, advice from consultants, and information provided in submissions to the consultation paper, public forum and draft determination, the Commission is not satisfied that the proposed rule will, or is likely to, contribute to the achievement of the NEO, for the following reasons:

- **Risk allocation:** By applying depreciation as incurred and an unindexed RAB to TransGrid's share of current ISP projects, the proposed rule would transfer some risks — in particular, inflation risk and completion risk — from TransGrid to consumers who are not best placed to manage these risks. Specifically, removing RAB indexation would have the effect of exposing consumers to inflation risk which, under current arrangements, they are protected from. In addition, a move to as incurred depreciation may also weaken incentives for TransGrid to complete its ISP projects in a timely and efficient fashion, thereby transferring more of the 'completion risk' associated with these projects from the business to consumers who are not in a position to be able to manage this risk.
- **Regulatory framework:** The proposed rule would represent a significant departure from established principles of regulation in Australia. It has the potential to undermine the AER's role in administering the regulatory framework, introduce substantial regulatory uncertainty to TNSPs not covered by this rule change and distort the achievement of efficient outcomes in both the NEM and financial markets by tilting the playing field towards TransGrid and its ISP projects relative to other TNSPs and non-network providers.
- **Regulatory compliance and administration costs:** The proposed rule would significantly increase complexity in the application of the regulatory framework by both requiring the management of alternative classes of assets within the regulatory framework and ensuring the RORI instrument appropriately applies for both nominal and real rates of return. The likely need to create a second RAB for TransGrid for its share of ISP projects would also make scrutiny of capital expenditure efficiency and prudence more complicated and result in the AER incurring increased administrative costs which, in the absence of a problem, are unlikely to result in efficient outcomes for consumers.
- **Efficient operation of electricity services:** The proposed rule is unlikely to promote efficient operation of the power system relative to the current arrangements. Specifically, the depreciation component of the proposed rule could weaken incentives for TransGrid to deliver projects on time by providing it with more income prior to completion of a project. This is unlikely to be in the long-term interests of consumers.
- **Efficient investment in electricity services:** The proposed rule is unlikely to promote efficient investment in electricity services relative to the current arrangements on the basis that economic regulatory framework currently already provides TransGrid with a reasonable opportunity to recover at least its efficient financing costs. Importantly, there is no obligation on TransGrid (or other NSPs) to finance investments at the notional gearing, whatever the profile of their capital expenditure: rather, the current regulatory framework provides TNSPs with sufficient flexibility to adapt their capital structures to be

able to raise debt finance consistent with the benchmark efficient firm. The application of the proposed changes to TransGrid's share of ISP projects only is likely to be detrimental to efficient investment in electricity services by tilting the playing field towards TransGrid's ISP projects and away from other proponents and similar ISP projects, and weaken investment incentives on onshore and offshore equity investors seeking capital growth by removing the linkage to, and hence protection from, inflation. Removing the RAB indexation could also cause a financeability issue in the future as the value of the RAB stops being indexed by inflation every year.

- **Impact on consumers:** While being NPV neutral from TransGrid's perspective, the proposed rule would result in payments for TransGrid's share of ISP projects being weighted towards the early period of an asset's life, increasing costs for consumers in the near to medium term, with lower prices later in the life of the asset. The proposed rule would also create an intergenerational wealth transfer between current and future customers, remove the link between the inflation component of network charges and the inflation component of the income of users of electricity, and move away from the current alignment between the profile of revenues to TransGrid for its share of ISP projects with the timing of benefits to consumers in respect of these projects.

The Commission agrees that there is a risk of non-delivery of transmission projects, but the proposed derogation does not remove that risk. There are a number of options for addressing the risk of non-delivery and the Commission believes that a broader review, as foreshadowed in our draft determination,<sup>33</sup> is the best way of determining which option or mix of options is best.

Further details of the Commission's assessment of the proposed rule against the NEO, and reasons for the Commission's final decision are discussed in detail in Chapter 6 of this final rule determination.

### 3.5 Strategic priority

This rule change request is relevant to the Commission's strategic priority relating to market and network arrangements that encourage efficient investment and flexibility.

The current regulatory arrangements which TransGrid is seeking to change in respect of its share of current ISP projects provide for TransGrid to recover its efficient costs, which consequently encourages efficient investment.

As noted above and explained further in this final rule determination, the Commission does not consider that making the proposed rule would promote efficient investment in electricity services relative to the status quo, and could in fact be detrimental to efficient investment.

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<sup>33</sup> AEMC, draft determination, p. vi.



## 3.6 Other requirements under the NEL

In applying the rule making test,<sup>34</sup> the Commission has also taken into account the revenue and pricing principles in the NEL when considering whether to accept the rule change request.<sup>35</sup>

The revenue and pricing principles require that a regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in providing direct control network services and complying with a regulatory obligation or requirement or making a regulatory payment.<sup>36</sup>

The revenue and pricing principles also require that a regulated network service provider should be provided with effective incentives in order to promote economic efficiency with respect to direct control network services the operator provides. The economic efficiency that should be promoted includes:

- (a) efficient investment in a distribution system or transmission system with which the operator provides direct control network services; and
- (b) the efficient provision of electricity network services; and
- (c) the efficient use of the distribution system or transmission system with which the operator provides direct control network services.<sup>37</sup>

The revenue and pricing principles further require that:

- A price or charge for the provision of a direct control network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the direct control network service to which that price or charge relates.<sup>38</sup>
- Regard should be had to the economic costs and risks of the potential for under and over investment by a regulated network service provider.<sup>39</sup>
- Regard should be had to the economic costs and risks of the potential for under and over utilisation of a transmission system.<sup>40</sup>

The Commission's analysis indicates that the current arrangements are consistent with these principles. In particular, the revenue and pricing principles, together with the rate of return objective,<sup>41</sup> do not require the regulatory framework to ensure that a TNSP can achieve a particular investment profile at the notional gearing and/or credit rating of a benchmark efficient entity.

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34 Set out in section 88 of the NEL.

35 The revenue and pricing principles are set out in section 7A of the NEL.

36 Set out in section 7A(2) of the NEL.

37 Clause 7A(3) of the NEL.

38 Clause 7A(5) of the NEL.

39 Clause 7A(6) of the NEL.

40 Clause 7A(7) of the NEL.

41 Clauses 6.5.2(c) and 6A.6.2(c) of the NEL specify that the allowed rate of return objective is that the rate of return for a service provider is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the service provider in respect of the provision of standard control services.

In addition, and in response to the proponents who considered not making the derogation would risk under investment in the network, the Commission does not consider implementation of the proposed changes would promote efficient investment relative to the current arrangements.

## 4 DOES THE REGULATORY FRAMEWORK CREATE A BARRIER FOR THE FINANCING OF ISP PROJECTS?

Overall, the Commission has found that the regulatory framework does not create a barrier to TransGrid being able to secure finance for its share of current ISP projects.

In coming to this conclusion, the Commission assessed the information provided by the proponent and by stakeholders through submissions to the consultation paper, draft determination and at a public forum. AEMC staff also undertook targeted consultation including with the AER, Moody's, capital market specialists and consumer representatives.

The Commission engaged Cambridge Economic Policy Associates (CEPA) to undertake a comprehensive analysis of impacts on the proponent's financeability in undertaking Project EnergyConnect and other current ISP projects.<sup>42</sup> A copy of CEPA's report is published alongside the draft determination and is available on the AEMC's website.<sup>43</sup>

This chapter outlines:

- the proponent's view as to why its share of ISP projects are not financeable
- what information the proponent provided to the Commission to substantiate the issue
- CEPA's independent analysis of the financeability impacts of ISP projects
- further considerations on the financeability of individual ISP projects, and
- the Commission's view on a review to consider the financeability of future ISP projects.

### 4.1 Proponent's view as to why its share of ISP projects are not financeable

The proponent suggested that in the course of its assessment of PEC, it identified features of the current economic regulatory framework that have significant implications for the financeability of ISP projects.<sup>44</sup> It said the issue has emerged due to the unprecedented capital investment required in order to deliver the proponent's share of ISP projects.

The proponent suggested that the financeability issue arises due to the regulatory framework deferring revenue until later in the asset's life. The proponent said that this deferral arises from the following two design features of the regulatory framework:<sup>45</sup>

- the provision of compensation for inflation through consumer price index (CPI) indexation of the RAB, which involves a deduction of forecast CPI indexation from the revenue calculation (capitalisation of inflation), and
- recovery of revenue for depreciation commencing when projects are commissioned, rather than as expenditure is incurred.

<sup>42</sup> The analysis considers TransGrid's current actionable ISP projects as well as the future projects identified in the 2020 ISP.

<sup>43</sup> [www.aemc.gov.au](http://www.aemc.gov.au).

<sup>44</sup> TransGrid, rule change request, p. 3.

<sup>45</sup> TransGrid, rule change request, p. 10

The proponent said that the revenue allowance in its revenue determination and the 2018 RORI assumes a 60 per cent debt funding level, a level of risk commensurate with strong investment grade credit rating and a return to investors assuming 40 per cent equity funding.

According to the proponent, this has two implications that substantially undermines the incentive to invest in the PEC:

- the project would require equity funding substantially in excess of the 40 per cent ratio provided for in the revenue allowance, resulting in an uneconomic return to equity investors and lower than the equity returns set out in the RORI, or
- the project could seek to proceed with 60 per cent debt funding but this could only occur on a sub-investment grade basis resulting in debt funding costs substantially in excess of those compensated for in the revenue allowance.

According to the proponent:<sup>46</sup>

Our credit rating would fall further (to well below investment grade) if we invested in more ISP projects. The downgrade in credit rating would result in a cost of debt well above that assumed to be faced by a benchmark efficient entity with a BBB+ credit rating, and will impact our ability to attract capital due to the increased risk associated with these projects. It is critically important for TNSPs to maintain investment metrics for stability and continuity. The ability to raise debt is critical and those same investment grade metrics also give equity markets confidence. The negative impacts of an investment downgrade are substantial and include transaction costs, managerial distraction, ability to maintain reliable operations, and decline of the firm. Expansionary activities are simply implausible until the firm stabilises.

#### 4.1.1

##### **Rule change request**

The rule change request contained analysis that, according to the proponent, indicates that the cash flows from PEC (and many other ISP projects) will be insufficient to support 60 per cent debt funding at a BBB+ credit rating (or indeed an investment grade credit rating at all) for an extended period.

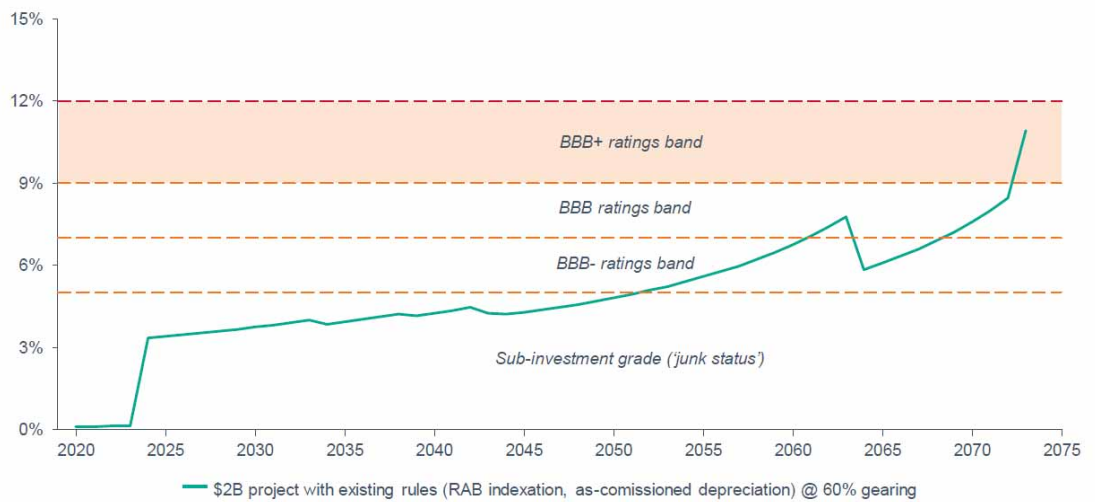
The proponent's analysis was based on the funds from operations over net debt credit metric (FFO/net debt) that is one of the measures used by credit rating agencies to assess the level of financial risk of debt funding.

Figure 4.1 shows the revenue profile of a notional standalone \$2 billion project under the current economic regulatory framework and the predicted credit rating based on the proponent's assessment of the FFO/net debt financial metric.

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<sup>46</sup> TransGrid, rule change request, p. 16.

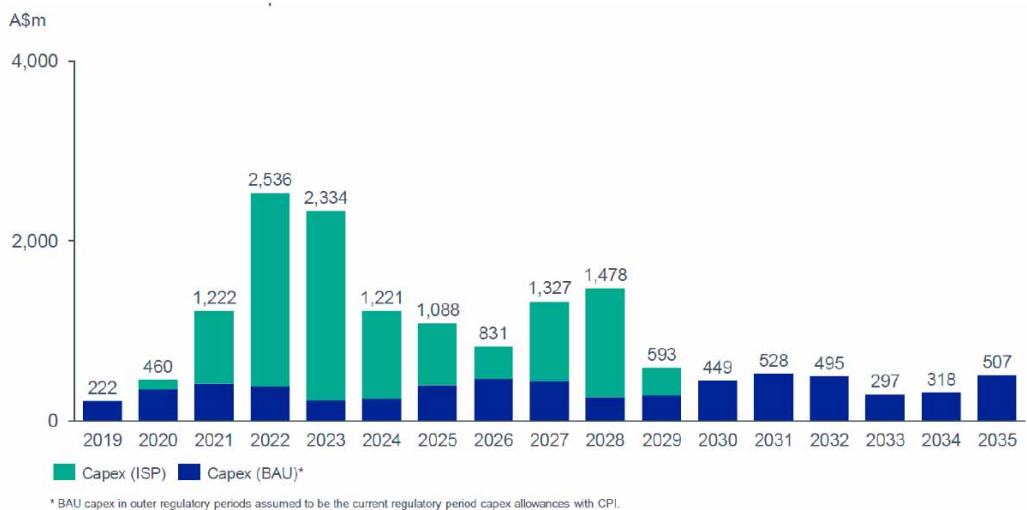
**Figure 4.1: FFO/net debt - Illustrative 2bn project**



Source: TransGrid, rule change request, 30 September 2020, p. 15.

The proponent also claimed that it faces significant capital expenditure as a result of AEMO’s ISP, as compared to business as usual (BAU). Figure 4.2 compares the proponent’s expected BAU and ISP related capital expenditure until 2035.<sup>47</sup>

**Figure 4.2: Forecast ISP and BAU capex**



Source: TransGrid, rule change request, 30 September 2020, p. 10.

47 TransGrid, rule change request, p. 10.

The proponent claimed that financing its share of ISP projects is likely to require investments of between \$9 to \$10 billion over the next ten years.<sup>48</sup> This would represent more than a doubling of its RAB, from its existing level of approximately \$6.4 billion.

The proponent noted that the consumer savings from ISP investments across the NEM are expected to be around \$11 billion over the next 20 years.<sup>49</sup> The 2020 ISP states that this benefit is the product of the least-cost development path to secure a full range of competitive energy resources.<sup>50</sup>

## 4.2 Stakeholder observations on the rule change request

This section provides a high level summary of issues raised in stakeholder submissions to the consultation paper.<sup>51</sup> A more detailed summary is provided in Appendix B.<sup>52</sup>

Stakeholders recognised the unprecedented size of actionable ISP projects. However, views were split on whether these projects are financeable under the current regulatory framework.<sup>53</sup>

Stakeholder submissions commented on several factors that currently assist the financeability of ISP projects in support of the view that ISP projects are financeable under current arrangements. These included the:<sup>54</sup>

- level of funding currently in the market and available to finance energy networks
- stable and predictable nature of Australia's existing regulatory arrangements

It was also noted that investors had known about possible ISP expenditures for some time, and information on this expenditure was provided to investors when TransGrid was sold to its current owners. This was considered to be a factor supporting the willingness of equity investors to finance ISP projects.<sup>55</sup>

In contrast, a number of stakeholders identified the mismatch between revenues and costs incurred under existing regulatory arrangements, the low regulatory rate of return, and the large investment requirements as factors that create financeability challenges for TNSPs undertaking large transmission (such as ISP) projects.<sup>56</sup>

TransGrid submitted that their investors expect returns consistent with the regulatory benchmark. TransGrid considered the cash flow profile under existing arrangements will not meet their investor's expectations. They further considered:<sup>57</sup>

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48 TransGrid, rule change request, p. 9.

49 TransGrid, rule change request, p. 27.

50 AEMO, ISP 2020, July 2020, pp. 96-97.

51 Submissions to the draft determination are addressed in section 4.6.

52 All submissions are available on the rule change project page at: <https://www.aemc.gov.au/rule-changes/participant-derogation-financeability-isp-projects-transgrid>

53 Appendix B, section B.1.2.

54 Ibid.

55 Ibid.

56 Ibid.

57 Appendix B, section B.1.1

- that a TNSP should expect to be able to achieve the credit rating determined to be efficient for a regulated network service provider (in this case BBB+). And that it would be inconsistent with the benchmark efficient TNSP for a different credit rating outcome.
- FFO/net debt is the financial metric credit rating agencies' focus on as a key determinant of a credit rating upgrade or downgrade.
- Financeability issues were unable to be solved under existing arrangements through discussions with the AER and that a rule change was the most efficient solution.

Stakeholders however expressed contrary views regarding TransGrid and ElectraNet's use of a single key credit metric, being FFO/net debt, in support of their rule change requests. In particular, stakeholders considered FFO/net debt to be one factor in credit rating assessments which also considers other financial ratios and qualitative factors.<sup>58</sup>

Stakeholders expressed support for a future review of the financeability of large transmission projects in the NEM.<sup>59</sup>

## 4.3 CEPA analysis on whether the regulatory framework creates a barrier to financing ISP projects

The Commission engaged CEPA to provide advice on the financeability of TransGrid's ISP projects. This section provides a summary of CEPA's analysis, considered by the Commission in making its draft and final determinations in respect of the rule change request.<sup>60</sup>

### 4.3.1 CEPA's methodology

CEPA conducted independent modelling of the TNSP's revenue and financial performance under the current regulatory framework and the rule change proposal. Broadly speaking, CEPA constructed a simplified version of the AER's Post-Tax Revenue Model (PTRM) and Roll Forward Model (RFM) to illustrate how the TNSP's financial outcomes would change, were the rule changes to be implemented. CEPA used the analysis to:<sup>61</sup>

... assess the financial performance of a TNSP in terms of the key credit metrics used by Moody's, assuming that this TNSP was financed at the notional 60% gearing level. We consider how these credit metrics could be expected to evolve if the notional TNSPs invest in the identified ISP projects for TransGrid and ElectraNet, with and without the proposed rule change. We interpret the implications of these results for the financeability of ISP projects, drawing on our experience of how credit ratings agencies analyse utilities and how regulators in other jurisdictions approach financeability assessments.

CEPA used the revenue outputs from this process to construct an illustrative credit rating scorecard for TransGrid.<sup>62</sup>

58 Appendix B, section B.1.2.

59 Ibid.

60 The CEPA report can be found on the AEMC's website.

61 CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 5.

62 Based on the Moody's 2017 Rating Methodology for Regulated Electric and Gas Networks.

### 4.3.2

#### CEPA's findings

CEPA's analysis confirmed that with an investment profile consistent with the PEC project, financed at the benchmark efficient entity's capital structure, a notional TNSP would face pressure in relation to its FFO/net debt ratio. This is likely to further deteriorate as more ISP projects are included in the analysis. These results are generally consistent with the analysis provided by the proponent.

However, CEPA also advised that in forming judgements rating agencies look at a range of different metrics as well as qualitative factors. CEPA's analysis of the approach that Moody's takes to assessing ratings for network utilities indicated that it is by no means certain that a notional TNSP would not be able to maintain an investment grade rating, with the assumed investment profile when all actionable and future ISP projects are included.

**TransGrid has adopted a relatively narrow financeability test, that may not be appropriate for assessing the financeability of a notional entity.**

Moody's and other credit rating agencies combine an assessment of both qualitative and quantitative metrics to arrive at an overall rating. While CEPA agreed that FFO/net debt is a key factor considered by Moody's, CEPA did not consider it appropriate for an assessment of the financeability of a *notional entity* to rely so strongly on this single metric.

While FFO/net debt is an important consideration within Moody's assessment framework, it represents just 12.5 per cent of the factors that weigh in the overall credit assessment. CEPA's analysis indicated that the performance of a notional entity against other financial ratios, in particular net debt/RAB and FFO interest cover, would likely be stronger than that indicated by the FFO/net debt ratio alone. CEPA's analysis indicated that the levels of the FFO interest cover metric, with and without the rule change, is broadly consistent with the threshold guidance provided by Moody's for a Baa1 rating, while the gearing ratio is considerably stronger than the tolerance level for Baa1.

Using an overall scorecard approach inclusive of qualitative elements and the other financial ratios, the overall indicated rating for the proponent in these circumstances could be considered to be consistent with a Baa1 credit profile, or stronger, over the period modelled.

**TransGrid has not presented a transparent interpretation of the modelling results.**

In relation to its modelling of PEC as a standalone project, TransGrid noted that even if the proposed rule is implemented, the project is unlikely to achieve the FFO/net debt ratio that TransGrid considered to be consistent with a Baa1/BBB+ rating. Nonetheless, TransGrid considered that if the proposed rule change is implemented, it could, with prudent capital management, achieve an investment grade rating sufficiently early to overcome the barrier to securing the capital necessary to proceed with the project.<sup>63</sup>

CEPA noted that TransGrid reported the Equity IRR at gearing that it is below the cost of equity in the RORI (the "allowed cost of equity"). However, CEPA noted that TransGrid did not point out that a lower gearing level would also mean that equity holders face lower risk,

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<sup>63</sup> TransGrid, rule change request, p. 5.



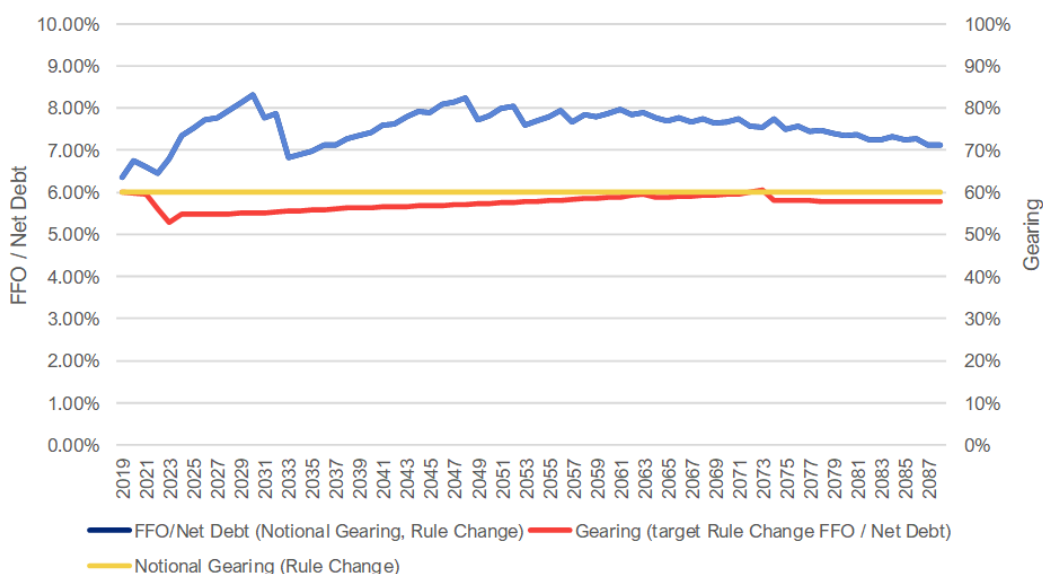
implying that their required return of equity would be correspondingly lower, i.e. the reduction in the return to equity is value neutral to equity holders. CEPA noted that TransGrid, and its advisers Incenta, have argued that this outcome would not be acceptable in light of the expectations of the businesses’ existing investors.

**The extent of improvement resulting from the proposed rule change is relatively marginal.**

Consistent with the proponents modelling, CEPA’s analysis indicated that performance against the FFO/net debt ratio would likely improve if the proposed rule was made. However, considered in the context of the TNSP’s existing RAB and maintaining the 60 per cent gearing assumption, the difference in the overall performance against the quantitative and qualitative ratings factors was relatively small. This raised questions of the materiality of the rule change’s effect, and consequently the significance of the financeability challenge that has been highlighted by the rule change proponents.

For example, CEPA noted that the proponent could achieve the same FFO/net debt ratio as under the rule change proposal, with a relatively small change away from the notional gearing level. Figure 4.3 shows the gearing levels required to achieve the FFO/net debt level of the proponent’s rule change request. It shows that, for example under the current regulatory framework with average gearing of 56 per cent over the first three regulatory periods, or 57 per cent over the entire period modelled, the TNSP could maintain FFO/net debt ratios consistent with those achieved under the rule change scenario. Options to improve financeability available to TNSPs are further discussed in Chapter 5.

**Figure 4.3: Gearing required to achieve the FFO/net debt level of the rule change request**



Source: CEPA final report, 2021, p. 26.

Note: Gearing required to achieve the rule change scenario FFO/net debt ratio (PEC+BAU)

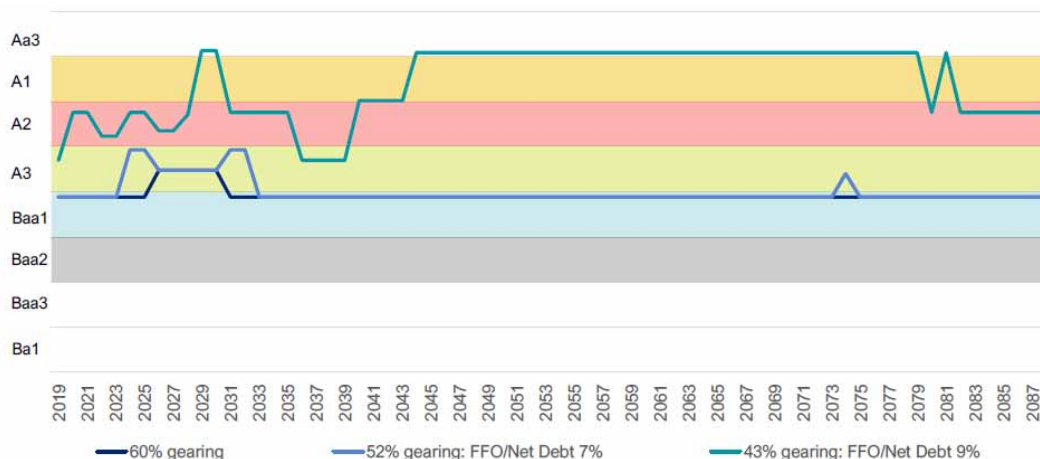
Figures 4.6 to 4.8 show CEPA’s modelling of TransGrid’s credit rating for three different scenarios:

- Existing RAB plus PEC project assuming no rule change
- Existing RAB plus all actionable (including PEC) plus future ISP projects assuming no rule change
- Existing RAB plus all actionable (including PEC) plus future ISP projects assuming the proposed rule changes are made under a participant derogation.

In particular:

- Figure 4.4 shows that under a no rule change scenario, the proponent would be able to maintain a Baa1 or better credit rating with a 60 per cent gearing level for the existing RAB and the PEC project.
- If all actionable and future ISP projects are added to the existing RAB and PEC, CEPA’s modelling indicates that the credit rating will drop to Baa2/BBB- in 2033, but otherwise remain at Baa1, as shown in figure 4.5.
- If the rules proposed by the proponent are made, figure 4.6 indicates that the proponent will be able to maintain a Baa1 credit rating with a gearing level of 60 per cent.

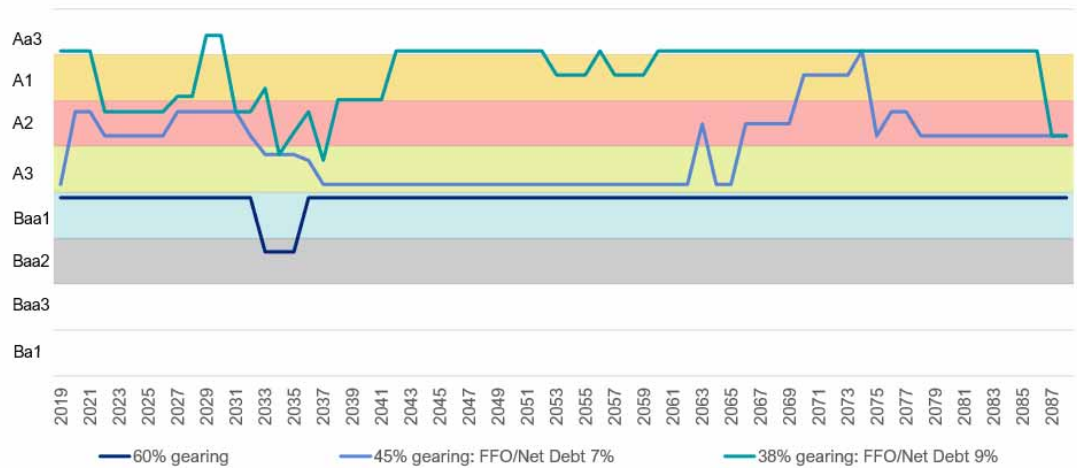
**Figure 4.4: Non-ISP capex+PEC - no rule change**



Source: CEPA final report, 2021, p. 82.

Note: TransGrid overall scorecard-indicated credit rating. TransGrid WACC assumptions.

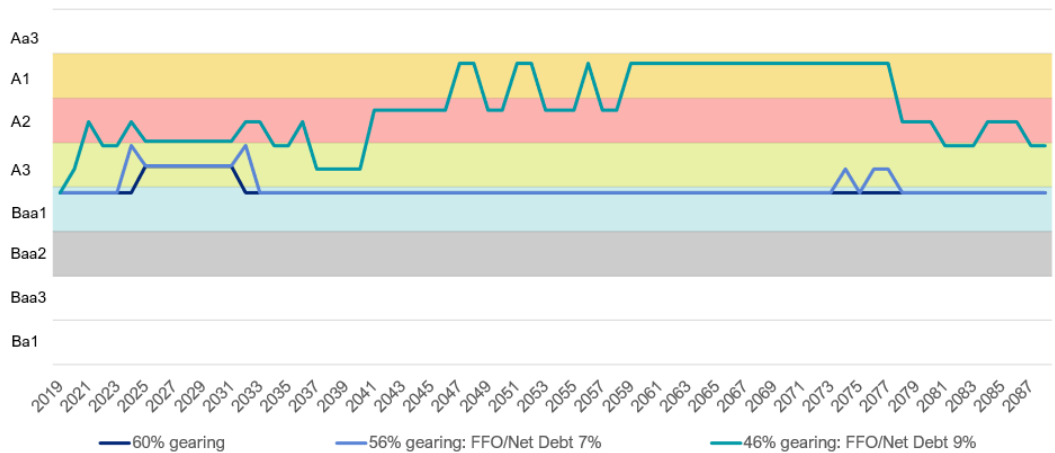
**Figure 4.5: Non-ISP capex plus all actionable and future ISP - no rule change**



Source: CEPA final report, 2021, p. 86.

Note: TransGrid overall scorecard-indicated credit rating. TransGrid WACC assumptions.

**Figure 4.6: Non-ISP capex plus all actionable and future ISP - rule change**



Source: CEPA final report, 2021, p. 87.

Note: TransGrid overall scorecard-indicated credit rating. TransGrid WACC assumptions.

Finally, CEPA noted that the analysis of the proponent’s credit rating is also sensitive to changes in future rate of return instruments (RORIs). For example, CEPA indicated that if it were to assume a return on equity that is more consistent with the cost of debt profile assumed by the proponent, financial performance of the notional entity would be substantially weaker in the near term, but much stronger in the longer term.

## 4.4 TNSP versus individual ISP project financeability

The analysis provided by CEPA focused on the financeability of ISP projects within the context of TransGrid's overall RAB. In the rule change request however, the proponent focused on the financeability and delivery of individual ISP projects. In addition to the financeability of TransGrid as an entity, the proponent's consultant Incenta also stated that:<sup>64</sup>

...ensuring that the benchmark efficient entity has access to deep and efficiently priced debt and equity will promote the NEO by:

- Maintaining the incentive on regulated businesses to investigate and invest in new major capital programs that bring material benefits to consumers across the entire NEM. Conversely, where deferred cash flow impacts on the capacity to attract capital, a business would be better off avoiding those projects and only doing smaller but less beneficial projects.

...the objective of the rule change is to ensure the capacity to finance the ISP projects, and so the relevant counterfactual is a world in which there is a serious risk that the ISP projects may not be delivered, or are not delivered in a timely manner".

While not explicitly stated, TransGrid's argument appeared to be that incremental investments in new capital projects need to be attractive to investors on a stand-alone basis, because it is currently open to TNSPs to choose the projects that they will invest in. TransGrid's argument appeared to be that a TNSP, behaving rationally, will only invest in new projects such as PEC where the project itself generates returns on equity that are sufficient for the TNSP's shareholders, regardless of how attractive shareholder returns are on the rest of the TNSP's RAB.

According to TransGrid, it is as a result of its cash flow profiles that the forthcoming ISP projects are at risk of not maintaining an investment grade credit rating with a 60 per cent gearing level and consequently they may be value diluting and so may not be attractive to investors.

CEPA pointed out that a reduction in gearing would result in a reduction of the equity beta and consequently the return on equity:<sup>65</sup>

While it is possible that the balance of risk and return associated with a lower level of gearing is different from that required by the current shareholders of the TNSPs, it does not follow that the current regulatory framework requires changes in order to make TNSPs an attractive investment. Other potential shareholders may be more interested in funding the growth of the TNSPs under the existing framework. Globally there is substantial demand for attractive infrastructure assets, and Australian TNSPs are sought after "core infrastructure" assets. This conclusion is also supported by the above observations on levels of both notional and actual gearing for Australian and global regulated networks.

<sup>64</sup> TransGrid, rule change request, pp. 29-30.

<sup>65</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 44.

CEPA further pointed out that ElectraNet established a \$725 million syndicated term loan and revolving credit facility in May 2020.<sup>66</sup> With respect to this transaction, CEPA noted that:<sup>67</sup>

If we assume that investors were acting prudently these investments would have been made with the assumption that the existing framework would be maintained.

The Commission considered whether the appropriate level of assessment is at the entity or individual project level in making its draft and final determinations. The Commission's view is set out in section 4.5.1.

## 4.5 Commission's draft determination on whether there is a financeability issue

This section summarises the Commission's draft rule determination on TransGrid's proposed participant derogation.

Based on its own analysis and careful consideration of consultant analysis and stakeholder feedback to the consultation paper and public forum, the Commission's draft determination was that there is no financeability issue in respect of TransGrid's share of actionable ISP projects (including PEC) which is caused by the current economic regulatory framework.

In making its draft determination, the Commission acknowledged that there is a risk that the proponent may decide to delay or not to make investments in actionable ISP projects. However, that risk exists even if the rule change is made. The Commission took into account a number of factors that mitigate the risk. These included:

- the current and particularly favourable cost of debt,<sup>68</sup> particularly when compared to transmission WACC of around 6 per cent and the underlying debt cost assumptions<sup>69</sup>
- the favourable manner in which investments were described in investor presentations and announcements
- recent RAB multiples that have been achieved — accepting that there are other factors that impact the multiple
- the success of the current PTRM regime in delivering network investments to date.

As a result, while the Commission considered that the timely delivery of individual ISP projects is important, the Commission did not consider the information supplied by the proponent provides a sufficient basis for making the proposed participant derogation at this time.

### 4.5.1 Commission's considerations in making its draft determination

The Commission's considerations in making its draft determination are set out in the following sections.

<sup>66</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 44.

<sup>67</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 44.

<sup>68</sup> RBA, The Australian Economy and Financial Markets, 2021, pp 18-19.

<sup>69</sup> AER, State of the energy market, 2020, P. 148.

### **Whether there is a financeability issue under the existing regulatory framework**

While the Commission acknowledged the concerns of stakeholders regarding the timely delivery of ISP projects, it did not consider that the information provided by stakeholders demonstrated that the current regulatory economic framework creates a barrier to financing ISP projects.

Further, the Commission noted the AER's submission and the work it has carried out to test the financeability of ISP projects. The results of this work indicate that ISP projects, and in particular PEC, are financeable under the current regulatory framework.

In regards to the comments made by stakeholders referring to the RORI, the Commission noted the following:

- TNSPs are not bound by the RORI and are free to adopt a different capital structure
- negative returns on equity are a matter for the AER to consider as part of the RORI and are unrelated to the ISP.

The Commission also considered how TNSPs are currently able to address financeability issues without making changes to the regulatory framework. These options are considered in the next chapter.

Finally, the Commission agreed with Ausgrid that networks should not be dependent on unregulated revenue streams to maintain their credit rating. That said, the Commission noted that networks can alter their capital structure to target or maintain a specific credit rating and that this is perfectly compatible with the design of the regulatory framework.

### **Credit metrics used in testing financeability**

In making its draft determination, the Commission welcomed the clarification provided by TransGrid in its submission to the consultation paper regarding its reasons for focusing on the FFO/net debt ratio to demonstrate its perceived financeability issue with its current share of actionable ISP projects. However, while the Commission noted the importance of this metric, it considered that sole reliance on the FFO/net debt ratio to reach conclusions on the ability of a business to raise financing for these projects provided an incomplete picture. Consistent with CEPA's analysis, the Commission considered it is important to assess the full range of inputs, including the different quantitative metrics and qualitative factors used by rating agencies, when considering the ability of a business to maintain an investment grade rating. As CEPA's analysis indicated, if the full credit scoring methodology used by Moody's is used to predict credit ratings of a TNSP undertaking significant capital investments (such as the ISP) there is no information that this would cause financeability issues.

### **The correct financeability test is at the entity not the project level**

The Commission agreed that a business, behaving rationally, would only undertake those projects that it believes will add value to its shareholders, and that under the existing regulatory framework it is possible for TNSPs to choose not to proceed with projects where those projects are not attractive, even where the entirety of the RAB, inclusive of those projects, is providing the TNSP with an opportunity to recover at least their efficient costs.

The Commission agreed with stakeholders who considered it important that ISP projects which add value for consumers are delivered in a timely manner. However, the Commission also agreed with stakeholders who noted that, consistent with the revenue and pricing principles, the network service provider as a whole should have an opportunity to recover at least their efficient costs and that, within their portfolio of RAB investments some assets may be attractive and some may not. The Commission therefore considered the correct test is at entity level, not project level.

Stakeholders suggested alternative proposals to deal with the risk of non-delivery of ISP projects which, along with other potential options, merit proper consideration. As noted in the consultation paper,<sup>70</sup> the current PTRM arrangements were considered and developed over an extended period of years, with expert input and multiple rounds of consultation. A significant change to the PTRM regime as proposed would ideally be subject to a similar level of rigour, including robust consultation with consumers, so that the best option is adopted.

The Commission believed that the cost impacts of the proposed rule change are understated. The same project specific incentive arguments would be valid for all new network investments. The Commission's view was reinforced by the submissions from network businesses themselves and from the ENA suggesting that broader application is appropriate.

#### **Financing of actionable ISP projects**

The Commission also noted the proponent's observation that a TNSP should be expected to achieve the credit rating determined to be efficient for a regulated TNSP. It considered however, that the concept of a benchmark efficient entity is a tool used by the AER and that this tool is not embedded in the rules or laws. TransGrid explained that the financeability issue is not caused by a lack of efficiency, but is rather due to the deferral of regulatory revenues. The Commission understood this, but also considered that the regulatory framework has been designed to defer revenue to, among other things:

- ensure that consumers pay for assets when they are most likely to receive benefits
- ensure financial capital maintenance, so that in the future, assets earn a rate of return sufficiently high to allow the TNSP to remain financeable.

## **4.6 Observations on the Commission's draft determination**

This section summarises stakeholder views on the Commission's draft rule determination, and in particular, whether the regulatory framework creates a barrier for the financing of TransGrid's share of current ISP projects. Stakeholder views on options available for addressing financeability issues, and issues relevant to assessment against the NEO are summarised in Chapters 5 and 6.

The Commission received 13 submissions to the draft determination.<sup>71</sup> Of these, nine supported the Commission's draft determination not to make the participant derogation

<sup>70</sup> AEMC, consultation paper, p. 30.

<sup>71</sup> All submissions are available on the rule change project page at: <https://www.aemc.gov.au/rule-changes/participant-derogation-financeability-isp-projects-transgrid>

sought by the proponent.<sup>72</sup> Four submissions either did not support the Commission's draft determination or expressed significantly contrary views on aspects of the determination.<sup>73</sup>

Stakeholders that supported the draft determination made the following specific comments in respect of whether the existing regulatory framework created a barrier to the proponents financing their actionable ISP projects:

- The AER, Engie and AGL agreed with the AEMC's view that the regulatory framework does not create a barrier to either TransGrid or ElectraNet financing their share of actionable ISP projects (including PEC).<sup>74</sup>
- The EUAA was pleased that the draft rule determination supported the position that the current regulatory framework does not cause financeability issues for ISP projects.<sup>75</sup>
- The MEU noted that most NSPs operating in the NEM have varying financial structures and those with higher gearing than the benchmark efficient entity are still able to attract debt at prices lower than the AER allowance for the benchmark entity.<sup>76</sup>
- Origin strongly supported the draft determination. It considered the AEMC's draft determination was consistent with their view that the regulatory framework does not create a barrier to financing and that there is evidence of significant funding options available in the market.<sup>77</sup>

In contrast, alternate views were expressed by the network businesses (including the ENA) who considered there to be existing, and significant emerging, financeability issues under the existing regulatory framework:

- TransGrid considered there was a credible risk that its ISP projects were not financeable under the existing framework.<sup>78</sup>
- Ausgrid considered it would be difficult for a business to implement the options identified by CEPA to maintain its credit rating (and thus to remain financeable) under the current regulatory framework due to the constraints of the single rate of return instrument. However, it noted that this issue could potentially be resolved through the AER's consultation on financeability in its RORI process.<sup>79</sup>
- ElectraNet's submission raised concerns that financeability challenges were emerging in relation to ISP projects, driven by their relatively large size and long asset lives. ElectraNet further indicated that their proposal adopted the precautionary principle in relation to the financeability of ISP projects, that is, that it is sometimes better to address potential risks, even if they may not eventuate.<sup>80</sup>

72 Submissions to the draft determination: AER, AGL, ACCC, EUAA, EnergyAustralia, Shell Energy, MEU, Origin, ENGIE.

73 Submissions to the draft determination: TransGrid, ElectraNet, ENA, Ausgrid.

74 AER, submission to the draft determination, p. 1; Engie, submission to the draft determination, p. 1; AGL, submission to the draft determination, p. 1.

75 EUAA, submission to the draft determination, p. 1.

76 MEU, submission to the draft determination, p. 3

77 Origin Energy, submission to the draft determination, p. 1.

78 TransGrid, submission to the draft determination, p. 1.

79 Ausgrid, submission to the draft determination, p. 1.

80 ElectraNet, submission to the draft determination, p. 1.



- ENA noted that large actionable ISP projects face particularly acute financeability challenges. It cited CEPA's findings that, in relation to the legislative framework establishing the binding RORI, the AER faces a number of constraints in recognising financeability issues, or in recognising efficient alternatives to benchmark financing practices to support a network undertaking a heavy investment programme.<sup>81</sup>
- ENA also considered future AEMC reviews should more fully consider any practical barriers to the AER to addressing financeability concerns at both the RORI stage, and at the level of individual network determinations.<sup>82</sup>

### **Assessment of credit ratings and credit metrics**

With reference to its related rule change request, TransGrid disagreed with CEPA's conclusion that it is by no means certain that a notional efficient TNSP, with an investment profile consistent with TransGrid, would not be able to maintain an investment grade credit rating. TransGrid maintained its view that credit rating agencies would rely on the FFO/net debt metric when determining the credit rating of a benchmark efficient entity. TransGrid made the following key points:

- Based on its direct, regular and ongoing discussions with the credit agencies, as well as published precedent from the ratings agencies, TransGrid considered the market advice provided by CEPA and relied on by the AEMC was inaccurate.<sup>83</sup>
- TransGrid did not agree that net debt/RAB and FFO/interest cover, as identified by CEPA, would also be used by a credit rating agency to determine the credit rating of a benchmark efficient entity. It noted that the credit rating reports it provided to the AEMC demonstrated that a benchmark efficient entity would still be held back by an insufficient FFO/net debt measure.<sup>84</sup>
- In reference to CEPA's analysis regarding the difference in the FFO/net debt ratio with and without the rule change (7 per cent and 4.5 per cent respectively), TransGrid considered this to be a material change. It also considered that a 4.5 per cent FFO/net debt ratio would not be sufficient to achieve even a baseline investment grade credit rating of BBB-.<sup>85</sup>
- TransGrid challenged what it understood to be an assumption by the AEMC that it is acceptable that a benchmark efficient entity can achieve a BBB- credit rating under the regulatory framework. TransGrid requested the AEMC provide examples of other jurisdictions globally where it is regarded as acceptable for a utility business to have a BBB- rating.<sup>86</sup>

In contrast to TransGrid's views, the MEU considered the AEMC draft determination provided clear and succinct reasoning why the proposed changes should not be implemented, and this was backed up by the cogent assessment of the issue provided by CEPA. The MEU also

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81 ENA, submission to the draft determination, p. 7.

82 ENA, submission to the draft determination, p. 8.

83 TransGrid, submission to the draft determination, p. 4.

84 TransGrid, submission to the draft determination, p. 5.

85 TransGrid, submission to the draft determination, p. 8.

86 Ibid, 3.

considered that the assessment by TransGrid of a single financial metric in isolation was misleading, especially when it is in relation to an actual rather than a notional entity.<sup>87</sup>

### **Support for a broader review**

There was widespread support for a future AEMC review of matters relevant to the efficient delivery of large transmission (including ISP) projects. Of the 13 stakeholder submissions received, eight expressed support for, or a desire to be part of, a future AEMC review.<sup>88</sup> For example:

- Origin supported the AEMC's plan to commence a broader review to support the timely and efficient delivery of large transmission projects that are in the long-term interests of consumers. They suggested the AEMC review look to address stakeholders' concerns around escalating project costs and the treatment of non-network options.<sup>89</sup>
- Energy Australia expressed support for a holistic review to consider arrangements for timely delivery, weigh complexity in ISP specific financing arrangements with risk in assuming financing at average WACC, and consider whether a financeability framework should be introduced.<sup>90</sup>
- ENA considered the AEMC's foreshadowed future review should more fully consider any practical barriers to the AER addressing financeability concerns at both the RORI stage, and individual network determinations.<sup>91</sup>

The ENA recommended a financeability framework be explicitly included in the NER. It considered that to promote the long-term interests of consumers, there should be a clear pathway for financeability assessments to play a role in informing future regulatory decision-making.<sup>92</sup>

In respect of the scope of a future AEMC review of financeability, several stakeholders identified a need for the scope of that review to include contestability in the delivery of ISP projects. Stakeholder recommendations on contestable ISP project delivery arrangements are summarised in Chapter 6.

## **4.7 The Commission's final determination on whether existing arrangements create a barrier for financing ISP projects**

The Commission's final rule determination is the same as its draft rule determination. The Commission considers that the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect).

The following section presents the Commission's response to the issues raised by stakeholders in their submissions to the draft determination. In forming its views, the Commission sought additional advice from its consultants, CEPA, on the specific issues raised

87 MEU, submission to the draft determination, p. 2.

88 Submissions to the draft determination: MEU, ACCC, Energy Australia, ENA AER, AGL, Origin Energy, ElectraNet.

89 Origin Energy, submission to the draft determination, p. 1.

90 Energy Australia, submission to the draft determination, p. 2.

91 ENA, submission to the draft determination, p. 4.

92 ENA, submission to the draft determination, p. 1.

by stakeholders in respect of CEPA's analysis on financeability. CEPA's full advice is published alongside this final determination.

#### 4.7.1 **Commission considerations in making its final determination**

The Commission agrees with stakeholder observations that the AER faces a number of constraints in recognising financeability issues, or in recognising efficient alternatives to benchmark financing practices supporting a network undertaking a heavy investment programme.<sup>93</sup> In particular, the Commission agrees that current rate of return arrangements could prevent the AER from fully recognising instances where efficient financing costs for a benchmark efficient entity with a specific investment profile might be different from the current view of efficient financing costs for a notional benchmark efficient entity.

However, the setting of allowed rates of return is a matter for the AER, and consideration of changes to arrangements related the AER's RORI process is beyond the scope of this rule change.<sup>94</sup> The AER publishes a new rate of return instrument every four years and has commenced an extensive review to determine the RORI to apply to all regulatory determinations from 2022 for the following four years.

The Commission also recognises that TNSPs can choose not to undertake transmission investments, which could result in beneficial projects not proceeding. However, the Commission considers that the long term interests of consumers are promoted by considering any changes to frameworks to address this issue on a holistic basis in a future review, rather than through the participant derogation sought in this rule change request.

#### **Credit rating methodologies**

The Commission has considered the issues raised by stakeholders - in particular TransGrid - in relation to CEPA's credit rating analysis for the benchmark efficient TNSP. Overall, the Commission remains satisfied with the conclusion that it is by no means certain that a notional TNSP, at the notional gearing, would not be able to maintain an investment grade rating, with this assumed investment profile.

The Commission is also satisfied that the overall indicated rating for the notional TNSP in these circumstances could be considered to be consistent with a Baa1 credit profile, or stronger, over the period modelled.

On this basis, the Commission remains of the view that regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect).

In response to TransGrid's concerns regarding CEPA's modelling and analysis, the Commission notes that CEPA utilised Moody's published 'scorecard' ratings approach which includes a range of quantitative and qualitative factors including a range of different financial metrics in addition to FFO/net debt. CEPA's analysis shows that it is by no means certain that a notional TNSP would not be able to maintain an investment grade rating, with its assumed

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<sup>93</sup> ENA, submission to the draft determination, pp. 7-8.

<sup>94</sup> The Commission anticipates consideration of this matter in a future review.

investment profile (including ISP projects). In addition, the analysis shows that the overall indicated rating for the notional TNSP in these circumstances could be considered to be consistent with a Baa1 credit profile, or stronger, over the period modelled.

The Commission acknowledges that credit rating agencies may have indicated that FFO/net debt is the critical financial metric which they consider when assessing TransGrid's credit rating. However, the Commission understands that the credit rating agencies provided this advice to TransGrid in respect of TransGrid's specific business circumstances rather than for the benchmark efficient TNSP. Consistent with its decision in the draft determination, the Commission considers the correct assessment of financeability is at the benchmark efficient TNSP level.

The Commission notes CEPA's comment in its response that:<sup>95</sup>

caution should be applied when considering the implications of guidance on actual companies for the circumstances of a notional entity. This is because the notional and actual entities are not directly comparable, given the influence of company-specific factors on the latter. These include the flexibility available under the existing framework for a TNSP to engage in un-regulated activities and adopt materially different capital structures to that assumed for the benchmark efficient entity.

Basing regulatory allowances on a benchmark efficient entity is an established principle within the regulatory framework. Placing substantial weight on constraints that exist for actual companies, in this case TransGrid, is inconsistent with this principle.

The Commission also understands that TransGrid has a materially different capital structure and a significantly higher gearing level than the benchmark efficient TNSP. In this regard, the Commission notes CEPA's observation that Moody's forward view for TransGrid reflects a net debt / RAB ratio in the high-80 per cent range over the next 12-18 months, well above the notional 60 per cent gearing level.

Moody's 2-3 year forward view for ElectraNet's net debt/RAB ratio is also in the mid- to high-80 per cent range. Further, CEPA understands that a range of company-specific factors also weigh in the assessment, including the generally higher risks associated with non-regulated revenues, and the companies' historical financial policies in relation to targeting a particular credit rating.<sup>96</sup> The Commission therefore agrees with CEPA that the specific advice provided by credit rating agencies to TransGrid does not necessarily reflect their approach to rating the benchmark efficient TNSP with lower levels of gearing than TransGrid.

The Commission also notes the additional information provided by CEPA on the validity of Moody's scorecard approach for estimating credit ratings. In particular, the Commission notes CEPA's findings that historically 80 per cent of Moody's credit ratings have fallen within one notch of the score card estimated outcome.

The Commission therefore agrees with CEPA's response that:

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<sup>95</sup> CEPA, response to submissions, p. 8.

<sup>96</sup> CEPA, financeability of ISP projects, final report, 27 January 2021. p. 18.

- there is sufficient evidence to conclude that Moody's guidance on the appropriate FFO/net debt threshold for TransGrid should not be given determinative weight when assessing outcomes for the benchmark efficient TNSP
- credit rating agencies consider multiple financial ratios when assessing credit ratings and that Moody's 'score card' rating approach is a valid method of estimating the likely credit rating applying to a benchmark efficient TNSP given its gearing.

TransGrid commented that the AEMC appears to assume that it is acceptable that a benchmark efficient entity can achieve a BBB– credit rating under the regulatory framework. The Commission understands TransGrid's comment is in relation to CEPA's analysis that indicates that a notional TNSP would be able to maintain an investment grade credit rating with the assumed investment profile. As the lowest investment grade credit rating is BBB–, TransGrid questions whether the Commission considers this an acceptable outcome for a benchmark efficient TNSP.

The AER currently sets the revenue allowance for a TNSP in relation to benchmark efficient TNSP, with 60 per cent gearing, at a BBB+ credit rating. The assumptions that are adopted in respect of the benchmark efficient TNSP, including the BBB+ credit rating, are determined by the AER through its RORI process. As these are matters for the AER, in consultation with stakeholders, the Commission does not wish to express a specific view on what the AER may or may not consider to be an acceptable credit rating assumption for the benchmark efficient TNSP.

The Commission however notes CEPA's findings that, using the overall scorecard approach inclusive of qualitative elements and the other financial ratios, the indicated rating for the benchmark efficient proponent in these circumstances could be considered to be consistent with a Baa1 credit profile (equivalent to BBB+), or stronger, over the period modelled.

#### 4.7.2

#### **A future review to consider the efficient delivery of large transmission (including ISP) projects**

While the Commission considers that the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect), CEPA's analysis does indicate that, in the long-run, the impact of ISP projects on credit ratings becomes more uncertain. The Commission has not, therefore, ruled out the possibility of material issues arising in the future in relation to the delivery of transmission investments — in particular, future ISP projects.

Further, the Commission notes that this rule change request, including submissions to it, has highlighted a broader set of potential issues related to the ability of the current regulatory framework to support the timely and efficient delivery of large transmission projects in the NEM.

However, the scope of the rule change request does not provide for the Commission to address the issues it has identified. The Commission also considers that a broader ranging review is a more appropriate means by which to investigate these issues.

For these reasons, the Commission intends to commence a review, in cooperation with the other market bodies, to consider options to support the timely and efficient delivery of large

transmission projects that are in the long-term interests of consumers, recognising that the nature of transmission investment is invariably changing. The Commission intends the review to consider these issues in the context of the regulatory framework's treatment of network business financeability.<sup>97</sup>

The advantages of initiating a review in conjunction with the other market bodies is that a review has the potential to consider alternative solutions, such as contestability and incentives, and test these against consumer preferences and economic efficiency rather than making incremental changes to the existing framework for individual projects or groups of projects.

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<sup>97</sup> Note, the Commission does not intend for the review to consider future arrangements to support project specific ISP financeability.

## 5 WHAT OPTIONS ARE THERE TO MANAGE FINANCEABILITY OF ISP PROJECTS?

The Commission's final determination has been informed by its consideration of the options available to transmission network businesses, including TransGrid, to address short term financeability issues. Key amongst these options includes raising equity from existing or new investors and/or re-investing a higher proportion of profits in the growth of the business.

These options are outside the regulatory framework and can be pursued by businesses to help finance new large capital-intensive projects. The Commission considers that the regulatory framework is designed to allow a TNSP to adjust its financing arrangements to suit its circumstances, including in relation to the maturity of its asset base.

This chapter presents the Commission's considerations on options available to TNSPs to address financeability issues. It draws on advice from CEPA, information provided by the proponent and the views of stakeholders provided through submissions to the consultation paper, draft determination, and at a public forum. The chapter outlines:

- the proponent's views on why financeability should be managed by making a derogation
- observations on options for managing financeability
- the Commission's draft determination on options to maintain financeability
- available options to for managing financeability of ISP projects
- stakeholder submissions to the draft determination, and
- the Commission's final determination on options for managing financeability.

### 5.1 Proponent's views on why financeability should be managed by making a derogation

As discussed in the previous chapter, the proponent suggested that two key financeability issues are relevant to the Commission's assessment of the proposed rule. These are that the proposed rule:

- facilitates investment in actionable ISP projects by removing what the proponent described as significant barriers to securing the funding necessary to proceed with the projects.<sup>98</sup>
- is consistent with the revenue and pricing principles of the NEL because it provides the benchmark efficient entity a reasonable opportunity to recover at least the efficient costs it incurs in providing network services, by allowing it to maintain access to investment grade debt.<sup>99</sup>

The proponent said that the revenue it receives, under existing arrangements, early in an asset's life is not enough to sustain an investment grade credit rating with a 60 per cent

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<sup>98</sup> TransGrid, rule change request, section 5.2.

<sup>99</sup> TransGrid, rule change request, section 5.3.

gearing ratio for a new investment because the ratio of FFO/net debt for a project is at a level that is not consistent with an investment grade credit rating.

The proponent said that this is an issue now because there are a number of large ISP projects, such as Project EnergyConnect, that are about to be built, meaning that a significant proportion of the proponent's assets will be in an early phase of their life. The cumulative effect means that TransGrid would be unable to maintain an investment grade credit rating at 60 per cent gearing. According to the proponent:<sup>100</sup>

If we invested in PEC (a typical ISP project) under the current arrangements and at benchmark gearing of 60 per cent, we would receive a credit rating downgrade (from our current credit rating of Baa2 from Moody's). Our credit rating would fall further (to well below investment grade) if we invested in more ISP projects.

TransGrid's submission to the consultation paper further supported its claim with the following statement made by their consultant Incenta:<sup>101</sup>

if the benchmark TNSP sought to maintain its investment grade credit rating by reducing gearing levels to below that of the benchmark entity it would likely have real world challenges in attracting equity finance. Specifically, the clientele of investors for network businesses are attracted to stable equity returns that are at a level that is consistent with a relatively high level of gearing.

## 5.2 Observations on options for managing financeability

This section provides a high level summary of matters raised in stakeholder submissions to the consultation paper. A more detailed summary is provided in Appendix B.<sup>102</sup>

Stakeholders and CEPA observed that TNSPs are free to adopt capital structures that differ from the AER's assumptions for the benchmark efficient TNSP. This includes the flexibility to adopt a range of practices to manage financeability. In particular, stakeholders observed that the assumptions used in making and applying the RORI are solely for the purpose of estimating efficient costs and are not binding on any TNSP.<sup>103</sup>

Stakeholders also commented on the flexibility available under existing arrangements for TransGrid to address financeability issues by varying its gearing ratio of debt to equity. It was observed that a reduction in gearing through the provision of additional equity would assist TransGrid to finance its ISP projects.<sup>104</sup>

Stakeholders and CEPA also identified that alternative, innovative approaches that avoid passing both cost and risk to electricity consumers were potentially available and should be

<sup>100</sup> TransGrid, rule change request, p. 16.

<sup>101</sup> TransGrid, submission to the rule change request, p.17, supported with associated discussion at pp.25-30 of the associated Incenta report titled "Attracting Capital for ISP Projects", September 2020.

<sup>102</sup> All submissions are available on the rule change project page at: <https://www.aemc.gov.au/rule-changes/participant-derogation-financeability-isp-projects-transgrid>

<sup>103</sup> Appendix B, section B.2.

<sup>104</sup> Ibid.



explored by the proponent. These included financing instruments that could be used to better match cash flows from investments in regulated assets.<sup>105</sup>

The AER was particularly concerned that bringing forward cash flows to enhance financeability in the short term to medium term would potentially lead to financeability issues in the longer term.<sup>106</sup>

### 5.3 The Commission's draft determination

In making its draft determination the Commission noted the following:

- The regulatory framework is designed to allow a TNSP to adjust its financing arrangements to suit its circumstances. There are a number of potential options available to TNSPs to address short term financeability issues and the regulatory framework, by design, does not constrain their use.
- The AER takes the view that the purpose of the benchmark assumptions are to allow modelling of appropriate returns and that actual gearing levels will depend on circumstances and preferences. Further, the view that equity is not attracted to entities with gearing levels materially below 60 per cent is not supported by market evidence, with many regulated entities operating at well below 60 per cent gearing.
- The AER's consideration and testing of different gearing levels in setting the 2018 RORI found little change in the appropriateness of the rate of return. This indicated that, in determining its RORI, the AER considered whether the rate of return remains reasonable at lower gearing levels should this become necessary, as may now be the case. It also demonstrates that the AER has flexibility to examine and, if necessary, adjust the benchmark gearing level in determining the appropriate rate of return in order to maintain the benchmark's relevance to actual gearing levels, thereby allowing network service providers to recover their efficient costs.
- The Commission also observed that there are additional financing tools that could be considered by the proponent to better match cash flows from investments in regulated assets. For example, inflation linked bonds, zero coupon debt or hybrid securities could also reduce cash needs early on.

In its draft determination, the Commission identified a characteristic of the current regulatory framework which could lead to projects not being efficiently delivered. There are currently no alternatives if a TNSP decides, for reasons outside of the national regulatory framework, not to deliver a project and there are also no regulatory consequences for the TNSP. The Commission's draft determination identified this issue as one that should be explored further as an element of a future review into the efficient delivery of large transmission (including ISP) projects.

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<sup>105</sup> Ibid.

<sup>106</sup> Ibid.

## 5.4 Options for managing future financeability issues

The Commission noted the following options to inform stakeholder consideration in relation to future regulatory reform processes.

### 5.4.1 Options for managing future financeability issues within the current NEL and NER

The AER sets the regulatory revenue allowance for a benchmark efficient TNSP through its RORI setting process. The AER has flexibility to consider a range of matters related to financeability through this process.

The AER considered financeability assessments in the context of the 2018 RORI. When setting the RORI it is open to the AER to adjust its benchmark assumptions, including gearing levels and credit metrics for the benchmark efficient TNSP. As an example, the AER also considered the impact of lower gearing levels in developing the 2018 RORI.

While the AER is able to make adjustments to the benchmark assumptions used to set the RORI, it may not be possible for the RORI to account for “non-standard circumstances” in respect of specific projects and TNSPs.<sup>107</sup> This is because the NEL limits the degree to which the individual circumstances of each benchmark efficient entity can be taken into account by requiring the RORI to “provide for the same methodology in relation to all regulated network service providers” and “without the exercise of any discretion by the AER”.<sup>108</sup>

Notwithstanding this potential limitation, there appear to be measures that the AER can take within the common methodology to accommodate particular investment profiles. For example, the AER recognises that, for lumpy investment profiles, the current trailing average cost of debt approach may lead to firms being materially incorrectly compensated. According to the AER, this issue might also be addressed in future by using a trailing average weighted cost of debt according to the amount of debt relative to the RAB each year, or by transitioning new assets from spot rates to a trailing average over time. The AER has said that it will consider if changes are desirable and, if so, what can be done when the AER makes the RORI in 2021.<sup>109</sup>

It may also be open, under existing arrangements, for the AER to incorporate benchmark assumptions about the type of instruments that a benchmark efficient NSP in a growth phase could use to finance its activities. CEPA observed for example that “*Ofwat and Ofgem have adjusted their approach to the allowed cost of debt to reflect the use of index-linked finance*”.<sup>110</sup> Better matching of debt assumptions could help to manage the risk of debt being raised at a materially different rate to debt assumptions in revenue allowances.

<sup>107</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 50.

<sup>108</sup> Section 18J of the NEL.

<sup>109</sup> AER, submission to the consultation paper, p. 17.

<sup>110</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 48.

## 5.4.2

### Options for future NER and NEL reform to address financeability issues

The Commission notes there may be a range of options for reforming the NER and the NEL to be considered if circumstances were to change such that there was a case to adjust cash flow profiles as proposed by the proponent. These may include the following.

#### Accelerated depreciation

The AER could be provided with discretion to adjust the depreciation rate. The AER is currently constrained through the operation of NER clause 6A.6.3, which requires depreciation schedules to reflect the nature of the assets over their economic lives. The Commission noted that the AER does not support this option as they believe that depreciation should be linked to economic principles in order to prevent distortions.<sup>111</sup>

#### Targeted financeability adjustments

TNSPs could be explicitly allowed additional revenues in the short term, offset by lower revenues in the longer term. This option would allow changes to the revenue profile to be explicit and highly targeted. The option is described more fully in section 3.4.1 of the accompanying CEPA report.

#### TOTEX

The Commission examined a total expenditure (or 'TOTEX') framework as part of its 2019 Electricity Networks Economic Framework Review.<sup>112</sup> in response to a recommendation of the Finkel Inquiry.<sup>113</sup> Energy Networks Australia also published a TOTEX discussion paper in 2018.<sup>114</sup>

A TOTEX framework is designed to remove incentives to incur capital expenditure instead of operating expenditure, or to incur operating expenditure instead of capital expenditure, by treating capital expenditure and operating expenditure identically. Under TOTEX, a fixed proportion of all expenditure, regardless of whether it is capital or operating in nature, is funded through NSP revenues in the year in which the expenditure occurs, and the remaining expenditure goes to the RAB. The terms "operating expenditure" and "capital expenditure" are replaced by "fast money" and "slow money".

In its 2017 TOTEX advice to the Commission, Frontier Economics recommended that a financeability test be used "*when determining the rate at which the TOTEX allowance is to be capitalised within the RAB.*"<sup>115</sup>

In its 2019 *Electricity networks economic framework review*, the Commission did not reject a TOTEX approach, but decided not to proceed with it at the time, noting that:<sup>116</sup>

<sup>111</sup> AER, submission to the consultation paper, p. 14.

<sup>112</sup> AEMC, Electricity Networks Economic Framework Review, Final Report, 2019.

<sup>113</sup> Dr Alan Finkel AO, Chief Scientist (Chair), Ms Karen Moses, Ms Chloe Munro, Mr Terry Effenev, Professor Mary O'Kane AC, *Independent Review into the Future Security of the National Electricity Market – Blueprint for the future*, June 2017, Recommendation 6.8.

<sup>114</sup> Frontier Economics, *Why Totex? Discussion Paper*, 24 July 2018 (for Energy Networks Australia).

<sup>115</sup> Frontier Economics, *Total expenditure frameworks, A report prepared for the Australian Energy Market Commission*, December 2017, p. ix

<sup>116</sup> AEMC, Electricity Networks Economic Framework Review, Final Report, 2019, p. 67.

Development of a TOTEX assessment approach is not currently considered a priority issue by stakeholders and would be a significant reform – requiring considerable resources at a time when there are numerous other major reform projects underway by the Commission and others.

### 5.4.3 Incentives for timely investment and project delivery issues

Incentives could be used to drive timely investment. At present, there is no consequence for a TNSP if a project runs late or is not delivered.<sup>117</sup> Consequences of the delay to the services intended to be delivered by the project are borne by consumers, even though consumers have no control over project delivery. An incentive scheme could provide for TNSPs, who do have control over project delivery, to share those consequences with consumers through revenue reductions if projects are delivered late and through revenue uplift if projects are delivered early.

An incentive scheme may be particularly appropriate where overall returns to a benchmark efficient TNSP provide a reasonable opportunity to recover at least their efficient costs, but where some projects are less attractive than others on a stand-alone basis.

The NER already provide for an incentive scheme which:<sup>118</sup>

provides Transmission Network Service Providers with incentives to provide prescribed transmission services in a manner that contributes to the achievement of the national electricity objective”, under which the AER must have regard to whether “the benefits to electricity consumers that are likely to result from efficiency gains in respect of a transmission system should warrant the rewards provided under the scheme, and the detriments to electricity consumers that are likely to result from efficiency losses in respect of a transmission system should warrant the penalties provided under the scheme.

However, the scheme currently only applies to small scale investments and is limited to 0.5 percent of maximum allowed revenue. By contrast the Service Target Performance Incentive Scheme provides for incentive up to 5 per cent of maximum allowed revenue.

#### **Options to deal with the non-delivery of projects**

The rule change request has brought to light a characteristic of the current regulatory framework which could lead to projects not being delivered. TNSPs have a monopoly right, but no obligation, to deliver transmission projects under the national regulatory framework.<sup>119</sup>

<sup>117</sup> The Commission acknowledges ElectraNet’s view that there may be increased costs and sharing under the CESS. ElectraNet, submission to the draft determination, p. 5.

<sup>118</sup> NER section 6A.7.5.

<sup>119</sup> noting that there are potential options available to the NSW Government through the *Electricity Infrastructure Investment Act 2020*, but these are outside of the national regulatory framework.

There are currently no alternatives if a TNSP decides, for reasons outside of the national regulatory framework, not to deliver a project and there are also no regulatory consequences for the TNSP should it choose this course of action.<sup>120</sup>

A number of stakeholders including the MEU, ERM Power, the Clean Energy Investor Group (CEIG) and ENGIE suggested that transmission projects could be made contestable, particularly where the TNSP refused to fund them.<sup>121</sup> CEPA also explored contestable service provision, citing examples of where it has been successfully used overseas.<sup>122</sup> Finally, the AER engaged Houston Kemp to provide a report on the Regulatory treatment of large, discrete electricity transmission investments, which examined introducing competitive tension to the planning and delivery functions.<sup>123</sup>

## 5.5 Observations on the Commission’s draft determination

Of the 13 submissions to the draft determination, several stakeholders commented on the flexibility available under the existing framework to address financeability issues by adjusting the TNSP’s capital structure and level of gearing.<sup>124</sup> Three stakeholders commented on the practicality of the options for managing financeability suggested in the draft determination and challenged the analysis performed by the Commission’s consultant CEPA that identified hybrid securities, and inflation linked bonds as options for consideration to better match cash flows from investments in regulated assets.<sup>125</sup>

### **Flexibility to adjust capital structure to address financeability issues**

The Commission’s draft determination noted that TransGrid had the option to address financeability issues through a reduction in its level of gearing. Several stakeholders agreed with the draft determination and commented on the flexibility provided under current arrangements to address financeability issues by adjusting TNSP capital structure, for example:

- The MEU noted that most NSPs operating in the NEM have quite varying financial structures, often having much higher gearing than the benchmark efficient entity (BEE) yet are still able to attract debt at prices lower than the AER allowance for the BEE.<sup>126</sup>
- Origin noted that the gearing issue could be addressed by TransGrid and ElectraNet by making internal changes.<sup>127</sup>

In contrast, TransGrid did not agree with the draft determination on the flexibility to adjust its capital structure to address financeability issues. Specifically, TransGrid noted the following:

<sup>120</sup> The Commission notes ElectraNet’s view that there may be increased costs borne by the TNSP through the CESS.

<sup>121</sup> MEU, submission to the consultation paper, p. 10; ERM Power, submission to the consultation paper, p. 3; CEIG, submission to the consultation paper, p. 2; ENGIE, submission to the consultation paper, p. 4.

<sup>122</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 8 January 2020, section 3.2.

<sup>123</sup> Houston Kemp, *Regulatory treatment of large, discrete electricity transmission investments - A report for the Australian Energy Regulator*, 19 August 2020, Chapter 5.

<sup>124</sup> Submissions to the draft determination: TransGrid, MEU, Origin.

<sup>125</sup> Submissions to the draft determination: TransGrid, Ausgrid, ENA.

<sup>126</sup> MEU, submission to the draft determination, p. 3.

<sup>127</sup> Origin, submission to the draft determination, p. 1.

- If the efficient capital structure required to deliver ISP projects is different to that on which the efficient cost of capital is estimated, the TNSP should maintain an opportunity to recover those efficient costs. The alternative is to build in an assumption that a TNSP should expect to earn less if it is nominated to deliver an ISP project.<sup>128</sup>
- An adjustment to its capital structure to reduce gearing is outside of the norms of regulated energy network practice and is not supported by recent case studies and other published reports.<sup>129</sup>
- The 2-5 per cent point reduction in whole of entity gearing quoted by CEPA amounts to a 30 to 50 per cent increase in the equity required to fund a \$2 billion ISP project. TransGrid identified this to increase required equity funding from \$800m to \$1-1.2 billion, where the additional \$200-400 million of required equity earns only a debt rate of return.<sup>130</sup>
- CEPA did not comment on its consultant's analysis of the ability of a TNSP to adjust its gearing down and therefore its dividend yield due to the preferences of certain groups of investors (including super funds, pension funds and older investors) for stable dividend yields rather than the prospect of faster growing income streams.<sup>131</sup>

Ausgrid's submission noted that the draft determination considered the capital structure of businesses should be flexible over fluctuating growth and investment cycles. Ausgrid identified a desire to understand the assumed boundaries of this flexibility and noted an intention to raise the issue as part of the AER's RORI process.<sup>132</sup>

### **Alternative options for addressing financeability issues**

Several stakeholders commented on the practicality of the alternative financing options discussed in the draft determination, in particular, the practicality of hybrid securities, and inflation linked financial products, as well as the regulatory reform options discussed in the draft:<sup>133</sup>

- TransGrid considered that the AEMC should not be assessing whether there are options outside of the regulatory framework for TransGrid to manage financeability. TransGrid considered that the AEMC should be assessing whether the regulatory framework supports the financeability of a benchmark efficient entity.<sup>134</sup>
- ENA requested the Commission provide clarity in the final determination on the alternative options identified in the draft determination which are available now vs those that might be in the future. ENA identified that the draft determination highlights that the movement to total expenditure ('TOTEX') style allowances could in future play a role in addressing financeability issues. ENA considered that given there is no active consideration of a movement to TOTEX in place or planned, and the Commission has

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128 TransGrid, submission to the draft determination, p. 3.

129 Ibid, p. 9.

130 Ibid, p. 6.

131 Ibid, p. 10.

132 Ausgrid, submission to the draft determination, p. 1.

133 Submissions to the draft determination: TransGrid, Ausgrid, ENA.

134 TransGrid, submission to the draft determination, p. 8.

elected not to further progress the issue at this time, it is difficult to view TOTEX as a relevant existing or alternative option for addressing the issues raised by proponents.<sup>135</sup>

Ausgrid and TransGrid commented on CEPA's suggestion that inflation linked finance and hybrid securities are available for network businesses to consider as alternate options to address short term financing issues. In particular, TransGrid's submission included the following comment:<sup>136</sup>

"CEPA identifies alternative financial instruments that could lower cash interest costs such as inflation linked bonds or hybrid securities". We submit that we have already investigated these options and found that neither improve financeability. Hybrid securities would result in higher financing costs for the project (we note the AER does not include hybrid securities in its benchmark efficient entity because it would lead to higher prices for consumers). Further, these instruments are not generally available outside the banking sector. In regards to inflation linked bonds, TransGrid considered CEPA's understanding of these instruments and their treatment by ratings agencies to be objectively incorrect. Published precedent from the credit ratings agencies shows that adjustments are made in their ratio calculations to net out precisely the benefit that CEPA suggests these instruments would provide (inflation indexation of the principal amount is added into the calculation of interest for ratings purposes, so they have no positive affect on credit metrics).

Ausgrid did not agree that CEPA's conclusion was reasonable from the evidence presented or from their own experience, particularly in the case of index linked finance. Ausgrid made a number of observations and requested the AEMC make due inquiries with CEPA to address the points raised in their submissions.<sup>137</sup>

The ENA further noted that the proponents had extensive discussions with the AER on some of the alternate options included in the draft determination. The ENA considered it would be beneficial for stakeholders to more fully understand whether the alternatives discussed in the draft determination go beyond, or are a subset of, any alternatives suggested by AER in discussions prior to the application.<sup>138</sup>

## 5.6 The Commission's observations in response

The Commission remains of the view that the regulatory framework is designed to allow a network service provider to determine its own capital structure and that there are a number of options available to TNSPs to address short term financeability issues that the regulatory framework, by design, does not constrain.

The Commission considers this flexibility is a core element of Australia's framework for economic regulation of networks.

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<sup>135</sup> ENA, submission to the draft determination, p. 11.

<sup>136</sup> TransGrid, submission to the draft determination, p. 2.

<sup>137</sup> Ausgrid, submission to the draft determination, pp. 2-3.

<sup>138</sup> ENA, submission to the draft determination, pp. 10 - 11.

The Commission also notes that should circumstances arise in future that warrant changes to regulatory cash flow profiles, then reform to include other and potentially more preferable options, are available for consideration in a future regulatory reform program.

The Commission's draft determination also discussed the availability of innovative financial instruments such as hybrid securities, or inflation linked bonds. The discussion of such options by CEPA and in the draft determination was presented to inform future consideration by stakeholders rather than to prescribe options for the proponents in lieu of their rule change request.

### 5.6.1

#### Commission considerations

This section provides the Commission's responses to the issues raised in stakeholder submissions outlined above. The Commission considered stakeholder views alongside additional advice from CEPA. CEPA's additional advice is published alongside this final determination.

#### **Flexibility to adjust entity capital structure to address financeability issues**

The Commission does not agree with TransGrid's assertion that changing the capital structure is not a viable option to address financeability issues or that an adjustment to its capital structure to reduce gearing is outside of the norms of regulated energy network practice, not supported by recent case studies and not supported by other published reports. The Commission remains of the view, expressed in the draft determination, that:

- The regulatory framework is designed to allow a network service provider to adjust financing arrangements to suit its circumstances. There are several potential options available to TNSPs to address short term financeability issues and the regulatory framework, by design, does not constrain their use.
- The AER's benchmark assumptions are to allow modelling of appropriate revenue allowances and actual gearing levels will depend on TNSP circumstances and preferences. Further, the view that equity is not attracted to entities with gearing levels materially below 60 per cent is not supported by market evidence, with many regulated entities operating at well below 60 per cent gearing.
- In determining its RORI, the AER considered whether the rate of return remains reasonable at lower gearing levels. This demonstrates that the AER has flexibility to examine and, if necessary, adjust benchmark gearing level in determining the appropriate rate of return in order to maintain the benchmark's relevance to actual gearing levels, thereby allowing network service providers to recover their efficient costs.

The Commission also understands that TransGrid's actual gearing levels are currently different from the 60 per cent assumed by the AER in respect of its benchmark efficient entity. This illustrates the flexibility available under the existing regulatory framework for a TNSP to adjust its capital structure including the level of gearing. While the Commission agrees that lower gearing will reduce returns to TransGrid's shareholders, it also notes that lower gearing also reduces risk to equity holders. Therefore, shareholders are compensated for lower returns by the corresponding reduction in risk.



TransGrid's submission considered CEPA's suggestion of a 2 to 5 per cent reduction in gearing to be a material change that amounts to a 30 to 50 percent increase in the equity required to fund a \$2 billion ISP project. TransGrid further noted that the additional \$200-400 million of required equity earns only a debt rate of return.<sup>139</sup> In retaining its view from the draft determination, the Commission notes the following response from CEPA, published alongside this final determination:<sup>140</sup>

- a gearing level of 55 per cent is consistent with (a) the market evidence considered by the AER in its 2018 RORI analysis; (b) notional gearing levels adopted in other jurisdictions; and (c) observed gearing levels for energy networks internationally. Combined, these factors suggest that it is plausible to expect that a notional network company could modify its capital structure to achieve 55 per cent gearing in the context of a substantial investment program. In this context, we consider it is reasonable to describe a change from 60 per cent to 55 per cent gearing levels as modest.

In its submission to the draft determination, TransGrid was also of the view that the AEMC should not be assessing whether there are options outside of the regulatory framework for TransGrid to manage financeability. It considered the AEMC should be assessing whether the regulatory framework supports the financeability of a benchmark efficient entity. The Commission refers to its findings in Chapter 4 and its conclusions about financeability.

As noted by CEPA, should TransGrid's current shareholders be unwilling to provide additional equity, other potential shareholders may be more interested in funding the growth of the TNSP under the existing framework. Globally there is substantial demand for attractive infrastructure assets, and Australian TNSPs are sought after "core infrastructure" assets. This conclusion is also supported by the above observations on levels of both notional and actual gearing for Australian and global regulated networks.<sup>141</sup>

### **Alternative options for addressing financeability issues**

Both Ausgrid and TransGrid challenged CEPA's analysis for the Commission on the alternate financing options available for consideration by the proponents, in particular hybrid securities and inflation linked bonds.

The Commission notes ENA's observation that the draft determination was unclear in respect of which alternative financing options were existing mechanisms available under the rules, options that may be adopted in the future. As discussed in Chapter 4, the Commission has considered the information available to it and concluded that the regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect). However, the Commission identified a number of options presented in this chapter for actions that can be taken by TNSPs to manage financeability issues consistent with the design of the regulatory framework and to inform stakeholder consideration of the in relation to future regulatory reform processes.

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139 Ibid, p. 6.

140 CEPA, financeability of ISP projects: response to submissions, 14 march 2021, p. 12.

141 CEPA, financeability of ISP projects - final report, 2 March 2021, p. 45.

The Commission's final determination does not rely on the practicality or appropriateness of the alternative financing instruments. Similarly, while the Commission's draft determination noted CEPA's suggestions regarding a possible role for hybrid and inflation linked securities, the draft determination placed no reliance on a role for these securities.

The Commission is satisfied that CEPA is well informed in its suggestion that the proponents could consider inflation linked bonds or hybrid securities. In respect of hybrid securities, the Commission notes that Ausnet services issued a \$650m subordinated hybrid in September 2020, following the issue of two offshore hybrids in 2016. These securities are considered as a mix of debt and equity for credit rating purposes. The UK experience of energy networks issuing inflation linked securities, also suggests potential for future use in Australia given similarities in the regulatory frameworks. Further information is available in CEPA's response to submissions published alongside this final determination.

## 6 TRANSGRID'S PROPOSED RULE IS UNLIKELY TO PROMOTE THE NEO

The Commission's final determination is not to make the proposed rule.

This chapter sets out the Commission's consideration and assessment of TransGrid's proposed participant derogation against the NEO, having regard to the revenue and pricing principles, the views of TransGrid, other stakeholders, and the AEMC's consultant, CEPA.

In making its assessment, the Commission has sought to understand whether the regulatory framework is creating a barrier to TransGrid financing its share of current ISP projects and therefore whether there could be a potential impact on the achievement of the NEO.

The first element of the Commission's assessment was described in Chapter 4 in which the Commission concluded that regulatory framework does not create a barrier to TransGrid financing its share of current ISP projects (including Project EnergyConnect).

This chapter completes the Commission's assessment of the proposed participant derogation by applying the assessment framework set out in Chapter 3 in respect of the NEO.

This chapter includes:

- a summary of TransGrid's assessment of the proposed rule against the NEO
- stakeholder observations on whether the rule change promotes the NEO
- CEPA's analysis of the impact of the proposed rule on key stakeholders including consumers
- a summary of the Commission's draft determination on whether the proposed rule promotes the NEO
- stakeholder observations on the Commission's draft determination
- the Commission's final determination on whether the proposed rule promotes the NEO

### 6.1 TransGrid's assessment of the proposed rule against the NEO

In TransGrid's view, the proposed participant derogation relates to efficient investment in electricity services in the long-term interests of consumers. TransGrid argued that its proposed changes would facilitate efficient investment in actionable ISP projects in the NSW region of the NEM. Its rule change request noted that:<sup>142</sup>

...efficient investment requires access to efficiently priced debt and equity finance so that regulated businesses have the capacity to deliver on the service requirements that are demanded by consumers.

Referring to comments provided by its consultant, Incenta, TransGrid considered the proposed participant derogation supports the NEO for the following reasons:<sup>143</sup>

<sup>142</sup> TransGrid, rule change request, p. 28.

<sup>143</sup> TransGrid, rule change request, pp. 28-29.

- By ensuring that the benchmark efficient entity has access to deep and efficiently priced debt and equity, the proposed participant derogation would:
  - maintain incentives on regulated businesses to investigate and invest in new major capital programs that bring material benefits to consumers across the entire NEM, and
  - promote productive efficiency by facilitating access to efficiently priced and reliable sources of debt and equity finance, minimising the costs to society for investment.
- The proposed participant derogation is NPV neutral, meaning that it is also neutral in the context of the long-term interests of consumers with respect to price.

TransGrid also argued that the proposed changes would support the revenue and pricing principles in the NEL because they:<sup>144</sup>

- provide a benchmark efficient entity with a reasonable opportunity to recover at least the efficient costs it incurs in providing network services (this is because the cash flows generated are sufficient to maintain access to investment grade debt and associated interest rates)
- provide more effective incentives to promote economic efficiency, including efficient investment in the transmission system, and
- support the principle that regard should be had to the economic costs and risks of the potential for under and over investment, by removing disincentives to invest in large projects that deliver material market benefits.

### 6.1.1

#### Impact on consumers

In TransGrid's view, the proposed participant derogation would allow consumers to obtain significant benefits in the long term, while still ensuring the NPV neutrality of revenue.<sup>145</sup>

TransGrid argued that by bringing revenues forward, the proposed derogation would allow it to obtain financing for its ISP projects consistent with efficient benchmark financing costs without creating any additional costs to consumers over the long-term. For example, TransGrid's consultant Incenta noted that:<sup>146</sup>

...bringing forward cash flows to support businesses accessing capital does not create any additional cost to consumers over the long term. That is, it only impacts on the timing of revenue to the regulated business, and not the overall value of the investment. As such, the change is NPV neutral. It follows, therefore, that bringing forward cash flows is also neutral in the context of the long-term interests of consumers with respect to price.

TransGrid also argued that, overall, customers would be better off because the long-term benefits they receive from the timely delivery of ISP projects would outweigh the additional costs borne by current customers from making the proposed changes to the NEL.

<sup>144</sup> TransGrid, rule change request, pp. 29-30.

<sup>145</sup> TransGrid, rule change request, 2020, pp. 28-29.

<sup>146</sup> TransGrid, rule change request, pp. 28-29.

In its rule change request, TransGrid included analysis around the impact of the proposed changes on consumers.<sup>147</sup> It estimated that the application of the proposed changes to PEC would result in consumers paying, on average, an additional \$3 per household per year in transmission charges over the remaining years of TransGrid's current regulatory period (expiring in 2023). TransGrid went on to note that:<sup>148</sup>

...the rule change will facilitate investment in ISP projects that would otherwise not be financeable. The benefits to consumers of having the ISP projects in place have been identified to be significantly greater than the increase in transmission charges by AEMO.

Following a review of the costs and benefits of PEC, TransGrid's economic consultant FTI estimated that the net cost saving to a household in NSW arising as a result of PEC would, on average, be between \$58.40 and \$63.90 per year.<sup>149</sup> In particular, FTI computed forecast benefits for NSW consumers from reductions in wholesale electricity prices consequent to the commissioning of the PEC and the connection of generators.

TransGrid acknowledged that an implication of bringing forward cash flows is that it would impact on the profile of transmission prices. That is, "...it will cause prices to be relatively higher early on and relatively lower in later years than would occur under the status quo."<sup>150</sup> This is demonstrated by analysis undertaken by FTI which showed that consumers would get the benefits of substantial savings from lower wholesale electricity prices after the commissioning of PEC.<sup>151</sup> Further, FTI pointed out that the bulk of the reductions in wholesale electricity prices is likely to occur during the later stages of the PEC after 2030 (Figure 6.1).

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147 TransGrid, rule change request, p. 26.

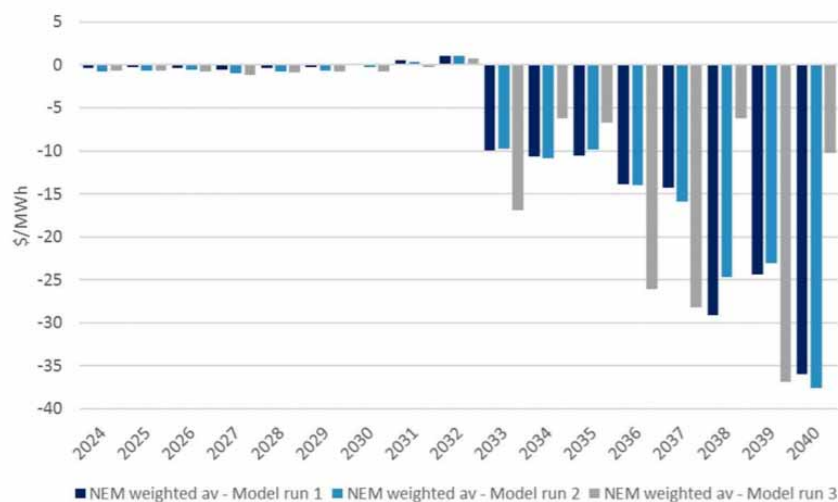
148 TransGrid, rule change request, p. 36.

149 FTI, Assessing the benefits of interconnectors, October 2020, p. 13.

150 TransGrid, rule change request, p. 36.

151 FTI noted that "EnergyConnect results in a material reduction in the weighted-average wholesale price in all NEM regions. The average decrease in NEM wholesale electricity prices over the 2020 to 2040 modelling period is between \$7.0/MWh/year and \$7.4/MWh/year." FTI, Assessing the benefits of interconnectors, October 2020, p. 11.

**Figure 6.1: Annual weighted average NEM wholesale price impact from PEC**



Source: FTI Consulting, Assessing the benefits of interconnectors, 2020, p. 12.

However, TransGrid also agreed with the views of Incenta who stated that:<sup>152</sup>

...in the context of ISP projects...this change in the profile of prices is unlikely to have any material impact on the promotion of the NEO.

- First, we note that the sheer size of the capital expenditure necessary for ISP projects means that prices will inevitably rise because of the project, with or without bringing forward cash flows. As such, it is only the marginal increase on a price rise that is caused by the bring forward that is relevant.
- Secondly, and more importantly, the objective of the rule change is to ensure the capacity to finance the ISP projects, and so the relevant counterfactual is a world in which there is a serious risk that the ISP projects may not be delivered, or are not delivered in a timely manner. Accordingly, any apparent distortion from efficient use that may be caused by a shift in the profile of prices would need to be weighed against the very large benefits that are expected from the ISP projects.

In this regard, TransGrid's rule change request highlighted Incenta's view that:<sup>153</sup>

...it is not inappropriate for customers to pay prices as are necessary to preserve the capacity for firms to access capital needed for ISP projects. As indicated above, ultimately the financing function of a transmission business is undertaken to deliver investments that are for the direct benefit of end use customers. Network businesses are required to bear the costs of these investments over their entire economic life, the

<sup>152</sup> TransGrid, rule change request, p. 29.

<sup>153</sup> TransGrid, rule change request, p. 29.

quid pro quo from customers is that they also commit to assisting to maintain the conditions needed to attract capital over that time.

## 6.2 Observations on whether the proposed rule contributes to the achievement of the NEO

This section provides a high level summary of issues raised in stakeholder submissions to the consultation paper. A more detailed summary is provided in Appendix B.<sup>154</sup>

Stakeholders commented extensively on the timing of cash flows under the rule change request, relative to under existing arrangements, and the potential impacts on current and future consumers:<sup>155</sup>

- Over half the stakeholders who responded to the consultation paper, including all consumer representatives, considered that the proposed changes would increase costs to consumers without providing corresponding benefits. In particular, stakeholders commented on the mismatch between the timing of costs and benefits for consumers under the proposed rule change.
- A number of stakeholders were not convinced that the NPV neutrality argument put forward by TransGrid was an effective way to show consumer indifference between two outcomes. Some stakeholders were also concerned by the lack of consumer engagement undertaken by the proponents to establish discount rates that could inform an assessment of NPV neutrality from the perspective of consumers.
- The AER disagreed with TransGrid's assessment of the level of financial impact on consumers from the proposed rule change. The AER considered that the average household would pay an additional \$6.50 per year over the next two regulatory control periods, and then would pay \$5 less per year over 2040-50.

Concern was expressed that the proposed rule change would transfer risk from TNSPs to consumers. Stakeholders specifically observed that inflation and project completion risks would shift to consumers. Some considered this inappropriate as consumers, unlike the TNSP or their investors, have very little ability to manage the risks associated with ISP projects.<sup>156</sup>

TransGrid and ElectraNet however did not consider that the proposed changes would change the costs, benefits or risks of their share of the ISP projects for consumers. TransGrid considered that placing substantial weight on perceptions of intergenerational equity created a risk that consumers ultimately may be made worse off if ISP projects are not delivered due to financeability issues.<sup>157</sup>

Stakeholders also commented on the impact of the rule change on the regulatory framework:

<sup>154</sup> All submissions are available on the rule change project page at: <https://www.aemc.gov.au/rule-changes/participant-derogation-financeability-isp-projects-transgrid>

<sup>155</sup> Appendix B, section B.3.1.

<sup>156</sup> Ibid.

<sup>157</sup> Ibid.

- Stakeholders were concerned that the proposed rule change would create a precedent for other TNSPs to pursue potentially leading to significant near term price impacts on consumers.
- The AER suggested the AEMC explicitly consider the impact of the proposed derogation on regulatory compliance and administration costs, which it considered are likely to increase somewhat with the creation of a second RAB.

A number of stakeholders considered the issues raised in the rule change request highlighted broader emerging problems with the financeability of large transmission projects under the existing framework and that these emerging problems highlighted the need for regulatory framework reform in the interests of consumers.

## 6.3 CEPA's analysis of the impact of the proposed rule on key stakeholders

In its report prepared for the AEMC, CEPA considered the impact of TransGrid's proposed participant derogation on customers, and on TransGrid and its investors. In respect of the impact on consumers, CEPA identified three key effects of the proposed changes:<sup>158</sup>

- higher prices in the near term
- efficient pricing/intergenerational effects
- revenue smoothing.

In respect of the impact on investors, CEPA explored two key areas:<sup>159</sup>

- Improvement in short term revenues vs longer term growth
- Investor demand for inflation-linked revenues

The following sections summarise CEPA's advice on the impact on customers and investors.

### 6.3.1 Impact on consumers

#### Higher prices in the near term

CEPA undertook analysis to test TransGrid's claim that the proposed participant derogation would ensure the NPV neutrality of revenue without creating any additional costs to consumers over the long-term.<sup>160</sup>

CEPA's modelling (which used the AER WACC as the discount rate) confirmed that TransGrid's proposed changes are close to NPV-neutral. The difference (attributable to the impact of the tax allowance) is approximately \$200 million in NPV terms.<sup>161</sup> This is compared to TransGrid's total revenue allowance of approximately \$28 billion.<sup>162</sup>

<sup>158</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, section 4.3.

<sup>159</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, section 4.4.

<sup>160</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 62.

<sup>161</sup> CEPA calculated the difference between the proposed changes and current arrangements over the entire modelled period and including all ISP projects.

<sup>162</sup> For ElectraNet, the difference between rule change and status quo over the entire modelled period, including all ISP projects, is approximately \$23 million in NPV terms, compared to a total revenue allowance of approximately \$8.5 billion.



CEPA noted that NPV neutrality is an important concept in regulatory finance as it ensures that changes to revenue profiles and related cash flows preserve rights of a company and are neutral to investors. However, it also noted that NPV neutrality is not the same as neutrality from a customer perspective. Indeed, referring to a recent AER decision, CEPA noted that if consumers were asked to pay for all investments immediately (consistent with NPV neutrality), those customers could go bankrupt or simply stop consuming.<sup>163</sup>

From a customer perspective, CEPA's analysis indicated that the proposed changes would lead to a larger increase in prices than under current arrangements in the near term, with lower prices later in the life of an asset. CEPA's estimated that between 2020 and 2035, the price impact of PEC alone on TransGrid's [and ElectraNet's] customers would be, on average, 0.05 cents/kWh (real 2018\$) higher under the proposed changes compared to the status quo, with peaks of over 0.1 cents/kWh around project completion. It noted that the price impact of the proposed derogation becomes larger if additional ISP projects are considered.

### **Efficient pricing and intergenerational effects**

CEPA explored the possibility that the proposed changes would result in a more efficient price profile relative to the status quo by better aligning the profile of revenues of a project with consumer benefits.<sup>164</sup>

CEPA also undertook an academic literature review on the optimal depreciation paths for determining the revenue of regulated services, as considered by the AER. Overall, based on the evidence it gathered, CEPA did not agree that the proposed changes would result in an efficient profile of prices.

### **Revenue smoothing**

CEPA also considered the impact of moving to an unindexed RAB (that is, a nominal rate of return model) on TransGrid's revenue and, subsequently, on prices.<sup>165</sup>

It noted that, when a regulated utility invests and its asset base increases, it is common for allowed revenues to increase. When returns are based on a nominal rate of return with an unindexed RAB, there is a large increase in the allowed revenues and accordingly customer prices also increase. When returns are based on a nominal rate of return and an indexed RAB, revenues and prices also increase, but this increase is less sharp.

CEPA referred to the AER's observation that: "*Indexation of the RAB leads to smoother revenue and prices. It also significantly reduces the increase in revenues that invariably happens when assets are replaced at the end of their useful life.*"

CEPA did not quantify the volatility of revenues that would result from a move from the current real rate of return framework to a nominal rate of return framework but noted that it would likely be a consequence of its adoption.

<sup>163</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 62. Reference to AER, Draft decision Ausnet services transmission determination 2017-18 to 2021-22 - Attachment 6 Regulatory Depreciation.

<sup>164</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p.p 62-62.

<sup>165</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 63.

### 6.3.2

#### Impact on investors

##### Improvement in short term revenues vs longer term growth

In its report, CEPA noted that the switch to the use of a nominal rate of return model rather than a real rate of return model would, by removing indexation of the RAB, increase revenues in the early years of the asset's life, and lower them in the later years. CEPA also noted that its modelling confirmed that the proposed approach is NPV neutral.<sup>166</sup>

In theory, therefore, CEPA considered an investor should be neutral between the proposed changes and the status quo. However, it noted that in practice, there are two offsetting factors:

- the opportunity for earlier cash flows under the proposed approach would allow companies to improve credit metrics, which may lead to a reduction of the cost of debt.
- The use of an indexed RAB under the current approach would provide businesses with the opportunity for RAB growth which may be desired by investors

CEPA noted that it has previously investigated this issue for the AEMC. Based on analysis of selection of analyst reports, CEPA concluded that RAB growth *"is a generally desirable outcome in investors' consideration of regulated businesses."*

##### Investor demand for inflation-linked revenues

CEPA noted that the evidence and actions of investors in global infrastructure assets, including energy networks, suggests that an important reason why investors have been attracted to Australian energy network infrastructure is because of the stable revenues and inflation protection that it offers.<sup>167</sup>

CEPA provided two quotes from investors in Australian energy network assets — IFM and Spark Infrastructure — to illustrate this. For example, Spark infrastructure stated that: *"The regulatory regime remains incentive based with a range of opportunities for out-performance and various in-built protections. Importantly, it provides inflation protection of revenues and the Regulated Asset Base and pass-throughs for operating and capital costs."*

CEPA also noted that, since the foundation of the NEM, there has been significant growth in investor interest in global infrastructure assets including energy networks and that demand from investors for 'core infrastructure' has been strong.

## 6.4

### Commission's draft determination

This section sets out the Commission's considerations in making its draft determination on whether the proposed rule change promotes the NEO with reference to each of the elements of the assessment framework set out in Chapter 3.

As noted in Chapter 4, the term "financeability" is not used in the NEL. However, financeability issues could potentially impact achievement of the NEO to the extent that these issues have a material impact on the long-term interests of consumers.

<sup>166</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 63.

<sup>167</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, pp. 63-64.

## The counterfactual

TransGrid's assessment of the proposed participant derogation, including its identification of benefits, was made in relation to a counterfactual where "*there is a serious risk that the ISP projects may not be delivered, or are not delivered in a timely manner*".<sup>168</sup>

Consumers will only obtain a lower level of benefits if TNSPs choose not to invest in actionable ISP assets.

In making its draft determination, the Commission was not in a position to conclude that unless the proposed participant derogation was made, TransGrid would either not proceed with its share of PEC and/or other actionable ISP projects, or would not proceed with these projects in a timely manner.

As observed by the AER in its submission to the consultation paper, it is difficult to anticipate the potential actions of TransGrid and potential investors in the context of large investments. There is always some risk that TransGrid may choose not to go ahead with its share of actionable ISP projects, irrespective of the AEMC's decision on this rule change request.<sup>169</sup> However, the Commission considered that if TransGrid should choose not to proceed with the PEC project, this is likely to be a business decision and not a consequence of a failure of the regulatory framework.

The issue of TNSPs ultimately having the ability to choose whether to proceed with an actionable ISP project which they have been allocated is a matter relevant to the ISP framework, rather than the economic regulatory framework. While assessment of the costs and benefits of ISP projects proceeding or otherwise is outside the scope of this rule change request, the AEMC intends to explore this matter further as part of its review of the options available to support the timely and efficient delivery of transmission projects, including ISP projects.

## TNSPs to benefit from cheaper financing for PEC projects

The Commission considered impacts on the cost of financing ISP projects in making its draft determination. While bringing forward cash flows may indeed result in cheaper financing costs, the Commission considered that these savings will accrue to the TNSP and are unlikely to be passed on to consumers.

As indicated by the AER and CEPA, and discussed in Chapter 5, TNSPs are free to choose their own capital structure and financial instruments under the current regulatory framework.<sup>170</sup>

We also note we considered sector benchmarks rather than firm specific details in making the RORI. The firms we regulate have flexibility in their capital structure decisions and employ this accordingly.

<sup>168</sup> TransGrid, rule change request, p. 29.

<sup>169</sup> AER, submission to the consultation paper, p. 3.

<sup>170</sup> AER, submission to the consultation paper, p. 7.

TNSPs are also incentivised to minimise their financing costs in order to maximise the efficiency savings they will be able to keep under current arrangements. For example, TNSPs keep any savings they achieve by outperforming the RORI. In particular, TNSPs raising debt at current rates below the AER's 10-year trailing average cost of debt, will keep the difference in debt financing costs arising out of the differential. The AER submitted that:<sup>171</sup>

We consider the regime should be set to achieve the NEO and provide service providers with a reasonable opportunity to recover at least their efficient costs. However, this does not require service providers to be able to achieve the benchmark assumptions used in making and applying the RORI at all times. The benchmark assumptions used in making and applying the RORI are for the purpose of estimating an allowed rate of return that is commensurate with the efficient financing costs of the regulatory investments, but go no further.

The Commission therefore considered that most if not all of any relatively cheaper financing costs are going to benefit TNSPs and their investors and not consumers.

#### 6.4.1

#### **Assessment of the proposed rule against the NEO**

In making its draft determination, the Commission was not satisfied that the form of the proposed participant derogation will, or is likely to, contribute to the achievement of the NEO relative to current arrangements. The Commission's draft determination in this regard was based on its own analysis, advice from consultants and information provided in submissions to the consultation paper and a public forum.

This was because, as discussed in Chapter 4, the Commission considered the regulatory framework does not create a barrier to TransGrid financing its share of actionable ISP projects (including PEC). This finding was the first element of the Commission's assessment of the proposed rule change request against the NEO. In addition, the Commission assessed the proposed rule against each element of the assessment framework introduced in Chapter 3 to fully consider the rule change request against all considerations relevant to whether the proposed rule change promotes the NEO.

The Commission also took into account the revenue and pricing principles in the NEL<sup>172</sup> in applying the rule making test. The Commission's analysis indicated that current arrangements are consistent with these principles.<sup>173</sup>

#### **Risk allocation**

The Commission's assessment framework included consideration of the impact on risk allocation due to the proposed rule change. Specifically the Commission considered that to advance the NEO, risks should be borne by, or allocated to, parties who are in the best position to manage them and have the incentives to do so. In this regard, the Commission considered that by applying depreciation as incurred and an unindexed RAB to TransGrid's

<sup>171</sup> AER, submission to the consultation paper, p. 5.

<sup>172</sup> Set out in section 88 of the NEL.

<sup>173</sup> See chapter 3 for a summary of the Commission's considerations regarding the revenue and pricing principles.

share of current and future ISP projects, the proposed rule would transfer some risks — in particular, inflation risk and completion risk — from TransGrid to consumers who are not best placed to manage these risks. The Commission does not consider this outcome to promote the NEO.

Incorporating capex spend into the RAB on an 'as incurred' basis (rather than when assets are commissioned) is a tool that can be used by regulators to encourage businesses to undertake capital investments that might otherwise be deferred due to construction risk.<sup>174</sup> By requiring consumers to pay regulatory depreciation on investments for several years before a project is commissioned, at least some construction risk (for example, the return of capital aspect of construction risk) can be transferred from businesses to consumers.

More important, however, is the risk that moving to as incurred depreciation, as proposed by TransGrid, may weaken incentives for businesses to complete capital projects in a timely and efficient fashion (for example, through careful contracting and effective monitoring throughout the construction process). This is because the more income a business receives prior to completion of a project, the less incentive there is to complete the project.<sup>175</sup> In this sense, a move to as incurred depreciation would transfer the "delay" and "completion" risks associated with its ISP projects from the business to consumers who are not in a position to be able to manage this risk.

The exposure that investors in energy networks have to inflation risk comes from the indexation of the RAB. Currently, inflation is capitalised into the RAB and investors receive inflation compensation through depreciation and the effect of a relatively larger RAB (as compared to an unindexed RAB) through the rate of return. The implication of the annual indexation of the RAB is that transmission network charges paid for by consumers also increase annually in line with inflation. All other things being equal, this means that changes in network charges (due to inflation) will match change in wages of consumers (and so their capacity to pay) relatively closely. In this sense, consumers are "protected" from inflation risk. Another way of thinking about this proposed change is that it would result in the PTRM targeting a nominal rate of return instead of a real rate of return.

Removing RAB indexation for TransGrid's share of ISP projects would mean that network charges will no longer increase in line with inflation, thereby removing the natural hedge currently provided to consumers (assuming that their incomes change with inflation too). This may be undesirable for consumers in the future since it would likely introduce a mismatch between changes in network charges and income because of the removal of indexation of only one of these variables. In this sense, the change proposed by TransGrid would have the effect of exposing consumers to inflation risk which, under current arrangements, they are currently protected from given they are not best placed to manage it.

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<sup>174</sup> Construction risk is often a problem with 'first-of-a-kind' builds or with particularly large and complex projects. Water networks, for example, typically involve large investments in physical capital which potentially give rise to construction risks, including risks associated with constructing water assets underground. In the context of electricity networks, construction risks may include easement issues, the risk of the construction company becoming insolvent and risks associated with the return on capital.

<sup>175</sup> A business could, for example, have a project 99.9 per cent built but not commissioned for as long as it wanted to and still receive all of the revenue for that project, even though it is delivering no customer benefits.

The Commission did not consider the transfer of inflation risk in this manner to be in the long term interest of consumers.

### **Impact on regulatory framework**

The Commission's assessment framework includes consideration of the impact of the proposed rule change on the regulatory framework. In assessing TransGrid's proposed participant derogation, the Commission considered the implications of having different regulatory frameworks and principles apply to different transmission assets in selected NEM regions.

The Commission considered the proposed rule would represent a significant departure from established principles of regulation in Australia. It has the potential to undermine the AER's role in administering the regulatory framework, introduce substantial regulatory uncertainty to TNSPs not covered by this rule change and distort the achievement of efficient outcomes in both the NEM and financial markets by tilting the playing field towards TransGrid and its ISP projects relative to other TNSPs and non-network providers. On this basis, the Commission did not consider the impact on the regulatory framework from the proposed rule change to advance the NEO.

Future network investments in the NEM are financed in accordance with the PTRM. This model has several characteristics: it spreads costs of providing services to the time consumers use the services; and provides a risk adjusted rate of return over time set in the RORI for network service providers. These characteristics (or principles) have been a key feature of regulation in Australia developed over the last twenty or more years.

Implementation of arrangements which would apply as-incurred depreciation and a nominal rate of return to TransGrid's share of ISP projects would result in different arrangements being applied between TransGrid and other participants, including other transmission businesses and non-network solution providers. This has the potential to harm consumers for several reasons:

- As noted by Origin, non-network proponents of ISP projects would not have the ability to recover costs earlier and so an uneven playing field would be created when assessing whether a network solution provided by TransGrid, or a non-network solution put forward by a third party, could provide better value for consumers.<sup>176</sup>
- Allowing for a separate RAB with different arrangements to apply in NSW only could potentially distort capital markets more broadly by incentivising funds to flow to TransGrid's ISP projects and away from other similar ISP projects. This may, in turn, distort efficient investment in transmission.

In addition, while the proposed changes would only apply to TransGrid and its share of actionable ISP projects, there is a risk that making the proposed derogation could trigger a broader move away from the real rate of return model (and depreciation as commissioned) as other network businesses with large investment programs claim that they face similar issues. ElectraNet's proposed participant derogation is a case in point.

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<sup>176</sup> Origin, submission to the consultation paper, pp. 1, 2.

In the Commission's view, the separation of rule making and economic regulation represents best practice. The risk of progressive requests made to it by network businesses to take individual assets out of the existing regulatory framework and applying a different framework determined by the AEMC (rather than the AER) is likely to undermine the AER's role in administering the regulatory framework and introduce substantial regulatory uncertainty to NSPs and their investors.

This possibility raises some broader questions, including around whether the nature of ISP projects warrants their different treatment within the regulatory framework relative to other transmission projects. It also raises several issues around governance of the regulatory framework.

The Commission noted that ISP projects have two distinctive features: they are large in the context of the asset values of the network businesses; and they are often separable from other transmission assets.<sup>177</sup> These characteristics are not, however, specific to ISP projects. They are characteristic of large, discrete transmission projects undertaken by network businesses generally.

In this regard, TransGrid's proposed derogation raised the question of whether the current regulatory framework and its settings remain appropriate for all large, discrete transmission investments (including large ISP investments), and whether modifications may be appropriate in the future, in certain circumstances, to better support network businesses in the timely and efficient delivery of these projects. The Commission considered that issues of this nature are best considered on a NEM-wide basis, rather than on a network business specific basis through progressive requests for participant derogations.<sup>178</sup>

Further, the Commission noted that TransGrid's proposed participant derogation sought to make changes to the economic regulatory framework administered by the AER. This framework, applied to all network businesses within the NEM, is reviewed by the AER on a regular basis to ensure that it applies best practice principles in its regulatory determinations.

#### **BOX 2: GOVERNANCE PRINCIPLES**

The AER's functions under the Australian Energy Market Agreement (AEMA) encompass economic regulation of the NEM, including electricity transmission regulatory functions.

Under the AEMA, the AEMC is a rule making, market development and market review body. The AEMC's role includes making the rules under which the AER undertakes economic regulation. The AEMC is not responsible for determining prices or revenues.

The 2015 Review of Governance Arrangements for Australian Energy Markets, undertaken for the COAG Energy Council said:

*"Australian energy market governance, which the Panel believes is in line with, and in some of*

<sup>177</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 65.

<sup>178</sup> The AEMC intends to explore these broader issues among others, further through a self-initiated review later in 2021.

*its elements defines, international best practice, relies on three principles:*

- *clear specification of limited and stable policy or regulatory objectives;*
- *institutional separation of the different powers and responsibilities; and*
- *delegation of legislative (market rule making), executive (administrative, enforcement and operational matters) and quasi-judicial powers and responsibilities to specialist agencies.*

Source: Australian Energy Market Agreement (as amended December 2013), sections 8.1 and 9.1(a)

Source: NEL, section 2, definition of *transmission determination*.

Source: Dr. Michael Vertigan AC, Professor George Yarrow, Mr Euan Morton, *Review of Governance Arrangements for Australian Energy Markets*, Final Report, October 2015.

### **Impact on regulatory compliance and administration costs**

In considering the impact on regulatory compliance and administration costs, the Commission identified the proposed rule would significantly increase complexity in the application of the regulatory framework by both requiring the management of alternative classes of assets within the regulatory framework and ensuring the RORI appropriately applies for both nominal and real rates of return. The likely need to create a second RAB for TransGrid's share of ISP projects would also result in the AER incurring increased administrative costs. In making its draft determination, the Commission did not consider such an increase in the complexity of regulatory compliance and administration costs to promote the NEO.

In its submission to the consultation paper, the AER noted its support for the framework proposed by the AEMC for assessing the proposed participant derogation. However, the AER suggested the explicit consideration of regulatory compliance and administration costs, which it considered likely to increase somewhat with the creation of a second RAB.<sup>179</sup>

The Commission therefore considered the impact of the proposed changes on regulatory compliance and administration costs and agreed with the AER that the likely need to create a second RAB for TransGrid's share of ISP projects would make scrutiny of capital expenditure efficiency and prudence more complicated and result in increased administrative costs.

The Commission also considered the potential for the proposed changes to increase complexity in the application of the regulatory framework to network businesses. The proposed changes would significantly increase complexity in the application of the regulatory framework by both requiring the management of alternative classes of assets within the regulatory framework and ensuring the RORI appropriately applies for both nominal and real rates of return.

In making its draft determination, the Commission considered an increase in regulatory complexity may be an appropriate trade-off to make where there is evidence of a material issue to solve through making changes to the Rules. However, given the absence of an identified regulatory barrier to the proponent financing its share of ISP projects, the increased complexity of the regulatory arrangements introduced by the proposed changes would be unlikely to result in better outcomes for consumers.

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<sup>179</sup> AER, submission to the consultation paper, p. 4.



### **Impact on efficient operation of electricity services**

The Commission considered the impact of the proposed rule on the efficient operation of electricity services in assessing the rule change against the NEO. The Commission considered the rule change is unlikely to promote efficient operation of the power system relative to the current arrangements. Specifically, the depreciation component of the proposed rule could weaken incentives for TransGrid to deliver projects on time by providing it with income from a project prior to its completion. This is unlikely to be in the long-term interests of consumers and therefore does not promote the NEO.

Timely investment in transmission projects that improve reliability and security in the NEM will support the efficient operation of the power system for the benefit of consumers. The Commission therefore noted the importance of ensuring that the economic regulatory framework does not create barriers to TNSPs delivering investments (including ISP projects) in a timely manner so that consumer benefits are not lost or deferred.

In this context, the Commission considered the impact of the proposed changes to the regulatory framework on the incentives for TransGrid to complete its share of ISP projects on time.

In summary, in making its draft determination, the Commission did not consider that the proposed changes will promote efficient operation of the power system relative to the current arrangements. Specifically, the Commission considered that the depreciation component of the proposed participant derogation could weaken incentives for TransGrid to deliver projects to time by providing it with more income prior to completion of a project. This is unlikely to be in the long-term interests of consumers.

### **Impact on efficient investment of electricity services**

The Commission considered the impact on the efficient investment of electricity services when assessing the rule change against the NEO. The Commission identified the existing economic regulatory framework already provides TransGrid with a reasonable opportunity to recover its efficient financing costs, and therefore currently supports efficient investment in electricity services. The Commission further considered:

- The application of the proposed changes to TransGrid's share of ISP projects only is likely be detrimental to efficient investment in electricity services by tilting the playing field towards TransGrid and away from other proponents and similar ISP projects, and weaken investment incentives for onshore and offshore equity investors seeking capital growth by removing the linkage to, and hence protection from, inflation.
- Removing RAB indexation could also cause a financeability issue in the future as the value of the RAB stops being indexed by inflation every year.

On this basis, the Commission did not consider the proposed rule change's impact on efficient investment of electricity services to be consistent with the promotion of the NEO.

The regulatory framework is intended to provide TNSPs with a reasonable opportunity to recover at least their efficient costs of providing services. This aims to allow these businesses to attract sufficient funds for investment, while not receiving a higher return than a firm

operating in the same industry and facing similar risks would face in a competitive market. TNSPs also face various incentives to make efficient and timely investment decisions, within the constraints of investor preferences.

In this context, the Commission considered:

- whether there is a barrier in the regulatory framework to TransGrid financing its share of ISP projects, and
- whether the changes to the regulatory framework proposed by TransGrid would better promote efficient investment relative to current arrangements.

Regarding the first point, the Commission considered the current regulatory framework provides TNSPs, including TransGrid, with a reasonable opportunity to recover their efficient financing costs. Under the current rules, the AER has duties to remunerate networks' efficient costs and it does so by measuring the cost of capital of the benchmark efficient entity at the notional gearing. Importantly, there is no obligation on TNSPs to finance investments at the notional gearing, whatever the profile of their capital expenditure;<sup>180</sup> rather, the current regulatory framework provides TNSPs with sufficient flexibility to adapt their capital structures to their circumstances over time.

Regarding the second point, the Commission did not consider that the proposed changes are required to promote efficient investment decisions in the near term, or that it is the best long term option to address potential future investment issues. The regulatory framework provides TNSPs as a whole with an opportunity to recover at least their efficient costs. Within their portfolios of RAB investments, some assets may be riskier than others and therefore require higher returns. When considering incentives for efficient investment, the Commission noted that the correct test is at entity level, not project level.

For these reasons, in making its draft determination the Commission did not consider that the proposed changes will promote efficient investment relative to the current arrangements. If anything, the Commission considered that the proposed changes would likely be detrimental to efficient investment for the following reasons:

- Allowing for a separate RAB with different arrangements to apply to TransGrid's share of ISP projects could potentially distort:
  - Capital markets, by incentivising funds to flow to TransGrid's ISP projects and away from other similar ISP projects. This, in turn, may impact efficient investment to the detriment of consumers.
  - TNSP behaviour, by creating an incentive to undertake investment only when it is an actionable ISP project.
- Removing or weakening the inflation linkage by removing indexation of the RAB may also weaken investment incentives from onshore and offshore investors, in particular equity investors seeking to invest in capital growth assets. As noted by CEPA, an important

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<sup>180</sup> Indeed, as noted by CEPA, the regulatory framework anticipates that heavy investment programmes may be accompanied by lower gearing.

reason why investors have been attracted to Australian energy network infrastructure is because of the inflation protection that it offers.

### **Impact on consumers**

The Commission considered the impact of the proposed rule on consumers when assessing the rule change against the NEO. In making its draft determination, the Commission identified that although the proposal was NPV neutral from TransGrid's perspective, the proposed rule would result in payments for TransGrid's share of ISP projects being weighted towards the early period of an asset's life, substantially increasing costs for consumers in the near to medium term, with lower prices later in the life of the asset. The proposed rule would also create an intergenerational wealth transfer between current and future customers, remove the link between the inflation component of network charges and the inflation component of the income of users of electricity and move away from the current alignment between the profile of revenues to TransGrid for its share of ISP projects with the timing of benefits to consumers in respect of these projects. The Commission did not consider the impact on consumers was consistent with promotion of the NEO.

While close to being NPV neutral (with the exception of the tax allowance), the proposed changes would result in payments for TransGrid's share of ISP projects being weighted towards the early period of an asset's life, substantially increasing costs for consumers in the near to medium term, with lower prices later in the life of the asset.

As estimated by CEPA, between 2020-2035, the price impact of PEC on TransGrid's (and ElectraNet's) customers would be, on average, 0.05 cents/kWh (real 2018\$) higher under the derogation compared to the status quo, across the period. This price impact becomes larger if additional ISP projects are considered.

The AER also estimated that, between 2023-2028 (TransGrid's next regulatory control period), the investment in the NSW portion of PEC will increase the transmission component of residential customer electricity bills in NSW by \$19 per annum under the current Rules, and \$26 per annum if the proposed derogation is made.<sup>181</sup> This analysis of the consumer impact of the proposed changes does not include TransGrid's other ISP projects such as Humelink or VNI Minor and so is also likely to materially understate the impact on consumers of the proposed changes.<sup>182</sup>

More generally, the bringing forward of revenues through the changes proposed by TransGrid would result in current consumers paying for:

- investments before those investments are delivering services, and
- services that will be provided to future consumers.

Intergenerational equity is not an objective that the AEMC is explicitly required to have regard to when making its decisions. However, the Commission is required to have regard to the long term interests of consumers. Where consumers value intergenerational equity, and

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<sup>181</sup> AER, Preliminary Position, TransGrid Contingent Project, Project EnergyConnect, December 2020, p. 1.

<sup>182</sup> In addition, the Commission notes that any future requests for similar participant derogations from other TNSPs and DNSPs could increase these customer impacts significantly, if successfully.

where any transfer of wealth between current and future customers impacts economic efficiency, then this is within the AEMC's remit to consider.

In respect of the first point, consumer groups have indicated (through their submissions and in other forums with the AEMC) that they do value intergenerational equity as well as arrangements which support the alignment of prices with the receipt of benefits.<sup>183</sup> In respect of the second point, the proposed changes would result in a material move away from the current alignment of the profile of revenues with the benefits of TransGrid's ISP projects which is likely to have a detrimental impact on the current efficient profile of prices.

### BOX 3: PEC BENEFITS AND THE NSW ROADMAP

This Box provides a brief overview of the potential monetised and non-monetised benefits from the PEC project.

- FTI estimates gross benefits under the RIT-T framework of \$1.6 billion in NPV over 2020-2040 with an implied break-even cost of \$3.0 Billion. These benefits are primarily based on avoided variable cost.
- Net consumer benefits of \$7.1 to \$11.9 Billion, arising from the material reduction in wholesale prices in all NEM regions. This is an overall decrease in wholesale prices of between \$7/MWh/year from 2020 to 2040. This is equivalent of savings of between \$34 to \$100 per year for NSW households.
- Additional non-monetised benefits reflecting the strategic importance of Project Energy Connect. These include:
  - support integration of renewables
  - connecting complementary generation mixes in SA and NSW
  - contributing to security of supply
  - interconnectors are likely to reduce frequency of system stress events
  - reducing frequency with which FCAS needs to be procured
  - increase access to cheaper FCAS services in other regions
  - reducing price of FCAS

The NSW Government announced the NSW Roadmap in November 2020. The Roadmap includes 12 GW of new VRE and 2 GW of long-term storage (8 hours) in the NSW region by 2030.

Without undertaking detailed modelling it is difficult to predict the impact of this new capacity on the modelled benefits of PEC.

At a high level, the Commission would expect that output from new wind and solar generation in NSW would be positively correlated with wind and solar output in SA. As this new generation would have zero (or near zero) marginal cost this could reduce the price

<sup>183</sup> For example, see EUAA, MEU, ERM Power, PIAC, ECA submissions to the consultation paper.

differential between NSW and SA during periods of high solar and wind generation. As most of the benefits of interconnection are driven by price differentials between regions, the Commission might expect that the modelled benefits of PEC with the NSW Roadmap would decrease relative to a world without the Roadmap.

Source: FTI Consulting, Assessing the benefits of interconnectors, 2020. NSW Roadmap, November 2020.

The proposed changes (in combination) would also result in current consumers facing larger price increases relative to the price increases experienced by future customers, each time TransGrid begins construction of an actionable ISP project. The Commission considered that the price volatility subsequently experienced by current customers attributable to these sharper increases would not be in their long term interests, particularly as it is stable prices that allow consumers to make informed decisions as to their energy spending and usage.

Finally, the Commission considered that it is in the long run interests of consumers that they continue to be confident that the TNSPs will be able to maintain service quality and reliability in the future. Making the proposed changes to the Rules, in particular the removal of the RAB indexation, would mean that there would be an increased risk that TNSPs do not generate enough cash in the future to maintain, augment and replace assets. This is also unlikely to be in the interests of consumers.

### **Revenue and pricing principles**

As explained in Chapter 3, in applying the rule making test, the Commission also took into account the revenue and pricing principles in the NEL, when considering whether to accept the rule change request.

The Commission's analysis indicated that the current arrangements are consistent with these principles. In particular, the revenue and pricing principles, together with the rate of return objective,<sup>184</sup> do not require the regulatory framework to ensure that a TNSP can achieve a particular investment profile at the notional gearing and/or credit rating of a benchmark efficient entity.

In addition, and in response to the proponents who considered not making the derogation would risk underinvestment in the network, as explained above, the Commission did not consider implementation of the proposed changes would promote efficient investment relative to the current arrangements.

## **6.5 Observations on the Commission's draft determination assessment of the proposed rule against the NEO**

Of the 13 submissions received by the Commission in response to the draft determination, nine supported the Commission's draft determination not to make the participant derogation

<sup>184</sup> Clauses 6.5.2(c) and 6A.6.2(c) of the NER specify that the allowed rate of return objective is that the rate of return for a service provider is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the service provider in respect of the provision of standard control services.

sought by the proponents.<sup>185</sup> Seven stakeholders made comments relevant to the Commission's draft determination assessment of the rule change request against the NEO.<sup>186</sup> The rule change proponents and other network entities provided the majority of comment.

This section summarises stakeholder submissions on the Commission's draft determination assessment of the proposed rule against the NEO in the following areas:

- the Commission's assessment framework and its application of the NEO
- NPV assessment and intergenerational wealth transfer
- Impact on the regulatory framework, transfer of risk, and relevant international examples

### **The Commission's assessment framework and application of the NEO**

In addition to the stakeholders who expressed general support for the Commission's draft determination,<sup>187</sup> two stakeholders expressly supported the Commission's assessment framework used to assess the proposed rule change against the NEO.

ENA and TransGrid did not support aspects of the Commission's assessment framework and approach to carrying out the NEO assessment:

- ENA considered that the final determination needed to be based on a balanced and transparent assessment framework, counterfactual analysis, and assessment criteria which are more clearly linked to the NEO and approach used in other rule determinations.<sup>188</sup>
- ENA further questioned whether the draft determination applied a 'gateway' assessment of whether the existing regulatory framework creates a 'barrier' to project financing on the part of TransGrid or ElectraNet. ENA was concerned that application of a 'gateway' test is not readily reconcilable with other rule changes including the standard process generally adopted by the Commission, in which the proposed change is considered with regard to whether the change will promote the NEO, having regard to the long term interests of consumers.<sup>189</sup>
- ENA also considered that the Commission's assessment framework criteria 'Impacts on economic regulatory framework' and 'Impact on regulatory compliance and administration costs' are not as clearly relevant to achieving the NEO as other criteria and should not be given significant weight in the AEMC's decision-making process alongside such primary considerations such as the impact on the efficient operation of and investment in the national electricity system.<sup>190</sup>
- TransGrid considered the NEO requires the AEMC to take into account the likely investment effects of the rule change as well as its allocative impacts. That is, the economic well-being of a TNSP should be considered and promoted so that it is able to

185 Submissions to the draft determination: AER, AGL, ACCC, EUAA, EnergyAustralia, Shell Energy, MEU, Orign, ENGIE.

186 Submissions to the draft determination: ENA, TransGrid, Shell Energy, EUAA, Origin, MEU, ACCC.

187 Submissions to the draft determination: AER, AGL, ACCC, EUAA, EnergyAustralia, Shell Energy, MEU, Orign, ENGIE.

188 ENA, submission to the draft determination, p. 1

189 Ibid, p. 8.

190 Ibid, p. 9.

invest appropriately in the development and maintenance of the electricity network over the long term.<sup>191</sup>

ENA and TransGrid also disagreed with the counterfactual used by the Commission in carrying out its NEO assessment, or considered the counterfactual to be unclear:

- ENA considered that to clearly assess the merits of any proposed rule change, the AEMC required a clear counterfactual scenario or a set of clear counterfactual scenarios to assess the rule change against. The ENA considered the draft determination does not state explicitly what counterfactual underlies its decisions.<sup>192</sup>
- ENA further said that meaningful assessment of the strength and quality of the AEMC's final determination will not be possible unless further clarity is provided in that document around the primary counterfactuals that informed the decision that the derogation would not promote the NEO, relative to no rule change being made.<sup>193</sup>
- TransGrid considered the AEMC's assessment was not appropriate due to the credible risk that without the rule change the ISP projects will not proceed. They considered the appropriate comparison to be the long term impacts on price, reliability and security with and without the ISP projects – or even with or without less or delayed investment compared to the ISP projects.<sup>194</sup>
- TransGrid further considered the AEMC determined that the bar for making the rule change was certainty that the ISP projects are not financeable. TransGrid considered that this criteria of certainty has no basis under the NEO and revenue and pricing principles in the NEL. Their view was that they have met the criteria for credible risk.<sup>195</sup>

In contrast, Shell Energy and MEU provided comments supporting the Commission's assessment framework:

- Shell Energy's submission supported the Commission's assessment framework and considered it appropriate.<sup>196</sup>
- MEU considered the draft determination provided clear and succinct reasoning that the proposed changes should not be implemented and this was backed up by the cogent assessment of the issue provided by AEMC consultant CEPA.<sup>197</sup>

### **NPV neutrality and intergenerational wealth transfer issues**

Stakeholders commented on the timing of cash flows, and resulting impact on consumers, under the proposed rule change. These comments included observations on the alignment of costs and benefits for consumers, NPV neutrality and intergenerational wealth transfer issues:

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191 Ibid, p. 4.

192 ENA, submission to the draft determination, p. 10.

193 Ibid.

194 TransGrid, submission to the draft determination, p. 1.

195 TransGrid, submission to the draft determination, p. 1.

196 Shell Energy, submission to the draft determination, p. 2.

197 MEU, submission to the draft determination, p. 2.

- AGL agreed that the proposed rule change will increase costs for consumers in the short term, despite leading to a benefit which will mostly accrue over the long term, and that this will lead to a misallocation of costs to consumers.<sup>198</sup>
- The ACCC noted that the derogation sought to address TransGrid and ElectraNet's cash flow concerns by increasing the rate of cost recovery of their investments during the earlier part of the asset's useful life. However the benefits of the investment are likely to be received in later years.<sup>199</sup>
- EnergyAustralia considered that while the profile of benefits delivered in NSW supported delayed price increases and a rejection of the rule change proposals, the Commission's determination for ElectraNet overlooked analysis by FTI and ACIL Allen which suggested wholesale price savings in South Australia would be delivered from the time of project commissioning. EnergyAustralia considered this might otherwise have supported front-loading regulated price increases.<sup>200</sup>

TransGrid and ElectraNet's submissions reiterated the view that their rule change requests would result in a relatively minor impact on short term transmission prices and achieve NPV neutrality over the life of the investment:

- ElectraNet identified that in present value terms, the revenue streams are unchanged as a result of the rebalanced revenue profile under the proposed rule. ElectraNet also noted that total undiscounted revenue is significantly lower under the proposed rule compared to outcomes under the current framework.<sup>201</sup>
- ElectraNet's submission re-iterated its view that Project EnergyConnect would deliver significant net benefits early in the project's life and that the analysis presented their earlier submission showed that the impact of the rule change in terms of inter-generational revenue outcomes is reasonable and closely matches the profile of the benefits expected from Project EnergyConnect.<sup>202</sup>
- ElectraNet and TransGrid both disagreed with the Commission's view that the consumer price increases would be 'substantial' or 'significant'. ElectraNet regarded the \$4 impact to be modest in the context of the expected customer benefits of Project EnergyConnect.<sup>203</sup> TransGrid requested the AEMC provide the analysis that led it to the claim that costs for consumers will be 'significantly' higher in the near term with lower prices later in the life of the asset when considered in terms of an evolving power system.<sup>204</sup>

Several stakeholders made comments supporting the view that consumers have a different risk profile and time value of money than regulated networks.<sup>205</sup> These stakeholders agreed with the Commission's draft determination view that TransGrid's rule change proposal would create an intergenerational wealth transfer between current and future customers.

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198 AGL, submission to the draft determination, p. 1.

199 ACCC, submission to the draft determination, p. 1.

200 EnergyAustralia, submission to the draft determination, p. 2.

201 ElectraNet, submission to the draft determination, p. 3.

202 Ibid, o. 4.

203 Ibid, p. 2.

204 TransGrid, submission to the draft determination, p. 3.

205 Submissions to the draft determination: EUAA, ACCC, Origin, EnergyAustralia.



- EUAA noted that its members would not accept higher costs now in exchange for uncertain benefits in the future.<sup>206</sup>
- Origin agreed that the proposal would likely increase costs for consumers in the short-to-medium term and lead to inter generational wealth transfer.<sup>207</sup>

In contrast, ENA disagreed with the assertion that consumers have a different discount rate to regulated networks and Energy Australia urged caution given the uncertainty of future benefits.

- ENA considered the only relevant discount rate for NPV analysis in this regulatory context is the AER determined regulatory rate of return, established under the RORI.<sup>208</sup>
- Energy Australia considered the Commission should be careful in exploring the issue of alignment of price changes and the delivery of benefits, which are highly uncertain.<sup>209</sup>

### **Impact on the regulatory framework, transfer of risk, and relevant international examples**

Several stakeholders commented on the Commission's draft determination that identified the impact on the regulatory framework, and transfer of risk, from the proposed rule change as inconsistent with promoting the NEO.

In its submission, ElectraNet did not agree with the Commission that the proposed rule would represent a significant departure from established principles of regulation in Australia. ElectraNet did not consider the rule change would change any of the incentive properties of the regulatory framework or planning arrangements that apply to transmission investments, including the application of the RIT-T.<sup>210</sup> ElectraNet further did not agree with the Commission's view that the playing field would be tilted towards ElectraNet's projects. Its view was that the rule change would ease the financeability issues that arise from large ISP projects and, therefore, should promote efficient investment, and enhance the attractiveness of investment to equity providers.<sup>211</sup>

In contrast, the ACCC considered the participant derogation would favour certain assets over others, resulting in a negative impact on the efficient investment in infrastructure. The ACCC considered derogations for specific participants to distort market signals for investment and may not lead to efficient outcomes that are in the long-term interests of consumers.<sup>212</sup>

ElectraNet also commented on the risk transfer between TNSPs and customers under the rule change. ElectraNet's submission clarified that its proposed rule change is intended to address cashflow issues, rather than reallocate risk to customers. ElectraNet noted that it would continue to be subject to incentives to minimise the total project cost and achieve (or exceed) service performance targets. ElectraNet considered these incentives support the

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206 EUAA, submission to the draft determination, p. 1.

207 Origin, submission to the draft determination, p. 1.

208 ENA, submission to the draft determination, p. 9.

209 EnergyAustralia, submission to the draft determination, p. 2.

210 ElectraNet, submission to the draft determination, p. 4.

211 ElectraNet, submission to the draft determination, p. 5.

212 ACCC, submission to the draft determination, p. 1.

timely delivery of projects, notwithstanding the cashflow benefits from the proposed rule change.<sup>213</sup>

TransGrid and ElectraNet did not consider the Commission had sufficiently considered international examples in considering that the proposed rule change was a significant departure from established principles of regulation.

- Both TransGrid and ElectraNet cited the New Zealand Transpower model as a relevant example of a jurisdiction where a nominal returns model had been applied.<sup>214</sup>
- EnergyAustralia considered CEPA's example of Scottish Hydro Electric Transmission Ltd illustrates that regulatory benchmarks could, however, be adjusted where the scale of expansionary capex demonstrably causes financing issues for the notional regulated entity.<sup>215</sup>

## 6.6 The Commission's final determination that the proposed rule is unlikely to promote the NEO

The Commission's final determination is the same as its draft determination. That determination is not to make the proposed rule. The Commission has made this determination as it is not satisfied that the proposed rule will, or is likely to, contribute to the achievement of the NEO.

In making this decision, the Commission has considered each point raised by stakeholders in their submissions to the draft determination. This section summarises the Commission's considerations on these points.

### 6.6.1 Commission's considerations in making its final determination

The Commission has carefully considered the stakeholder submissions to the draft determination.

The Commission observes that stakeholder submissions generally re-iterated, or clarified, existing positions already considered by the Commission in making its draft determination. The Commission also considered new information provided by stakeholders but considered that the information did not affect its assessment against the NEO. The Commission's assessment against each element of its assessment framework for implementing NEO in section 6.4 therefore remains applicable to its final determination.

This section presents the Commission's considerations on the issues raised by stakeholders in each of the following areas:

- the Commission's assessment framework and its application of the NEO
- NPV assessment and intergenerational wealth transfer
- impact on the regulatory framework, risk transfer, and relevant international examples

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<sup>213</sup> ElectraNet, submission to the draft determination, p. 4.

<sup>214</sup> Submissions to the draft determination: ElectraNet, p. 4; TransGrid, p. 1.

<sup>215</sup> EnergyAustralia, submission to the draft determination, p. 1.

## The Commission's assessment framework and application of the NEO

Stakeholders raised several issues with the Commission's assessment framework and application of the NEO in making its draft determination. These issues were that the:

- the draft determination set out a bespoke 'gateway' assessment process of whether the existing regulatory framework creates a barrier to financing ISP projects that is not clearly reconcilable to previous rule determination processes, or clearly linked to the specific components of the NEO
- the Commission's assessment included 'Impacts on economic regulatory framework' and 'Impact on regulatory compliance and administration costs' which were considered immaterial to the efficient operation of, and investment in, the national electricity system.
- the Commission's counterfactual used in making its draft determination was unclear and the Commission had not fully accounted for the risks of under-investment.

The Commission's considerations on each of these points is set out below. In light of the issues raised, in making the final determination the Commission has where relevant clarified the approach to its assessment.

The Commission's consideration of whether the existing regulatory framework creates a barrier to financing ISP projects (the issue raised by the proponents) is not a bespoke approach to this rule change request. Defining the issue to be assessed is the first step in the Commission's framework for assessing all rule change requests.<sup>216</sup> Definition of the nature and scope of the issue that is proposed to be addressed is also a requirement for making a rule change request and the Commission must also consider the issues raised by a rule change request when considering whether to make a more preferable rule.<sup>217</sup>

In Chapter 4, the Commission concluded that there is no financeability issue in respect of the proponent's share of current ISP projects (including PEC). While the Commission has identified issues that merit further consideration, the rule proposed by the proponent does not address the issues identified. The Commission therefore proposes to investigate the issues it has identified in a review.

The Commission considered the impacts on the economic regulatory framework and the impact on regulatory compliance and administration costs in its NEO assessment and notes ENA's view that these factors should not be given significant weight that assessment. The Commission disagrees that the impact on the economic regulatory framework of the proposed rule should not be given significant weight.

The Commission acknowledges that the cost of a more complex regulatory process is likely to be of a lower magnitude than any costs from investment or operational outcomes arising from the proposed rule. However, the Commission agrees with the AER that the establishment of a separate RAB for ISP projects would add cost, complexity and require modifications to the AER's regulatory models.<sup>218</sup>

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<sup>216</sup> AEMC, *Applying the Energy Market Objectives*, 8 July 2019, p. 15.

<sup>217</sup> Regulation 8, National Electricity Regulations.

<sup>218</sup> AER, submission to the consultation paper, p. 17.

The Commission notes the view of ENA and TransGrid that the counterfactual used by the Commission in carrying out its NEO assessment is incorrect or unclear. As discussed in Chapter 4, the Commission considers there is no regulatory barrier to TransGrid financing its share of current ISP projects (including PEC). The Commission therefore does not identify a specific problem with current arrangements. This is the counterfactual against which the Commission has assessed TransGrid's proposed participant derogation. If the proposed rule were to be made, there would continue to be no regulatory barrier to TransGrid (or ElectraNet) financing its share of actionable ISP projects. There would be other consequences, as assessed elsewhere in this chapter.

While the Commission does not consider existing arrangements create a material risk of under-investment, given the Commission doesn't identify a barrier to TransGrid financing its share of actionable ISP projects, the Commission acknowledges that a TNSP may choose to delay or not make certain investments for reasons unrelated to the regulatory framework. This is the case whether or not the rule is made. The Commission identifies this situation as one requiring additional investigation in a future review.

In forming its view, the Commission had regard to the pricing principles in section 7A of the NER, in particular that regard should be had to the economic costs and risks of the potential for under-investment. Following from the Commission's draft and final determination that the existing regulatory framework does not create a barrier to TransGrid financing its share of ISP projects, the Commission does not consider existing arrangements, that allow recovery of at least the efficient costs associated with a network investment to lead to a material risk of under-investment in the network.

### **NPV assessment and intergenerational wealth transfer**

Stakeholders raised several issues in respect of the Commission's analysis of the intergenerational wealth transfer between current and future customers that would occur under the proposed rule. These were:

- whether consumer price increases would be 'substantially' higher in the near term
- whether an intergenerational wealth transfer would occur should the rule be made, and
- that there is alignment between costs and benefits for South Australian consumers from ElectraNet's share of the PEC

The Commission's considerations on each of these points is set out below.

The Commission's draft determination considered that the proposed rule change would substantially increase costs for consumers in the near to medium term, with lower prices later in the life of the asset. Several stakeholders questioned the Commission's characterisation of the near term increase as substantial.

The Commission notes that the AER's assessment that investment in the NSW portion of PEC will increase the transmission component of residential customer electricity bills between 2023-2038 in NSW by \$19 per annum under the current rules, and \$26 per annum if the proposed derogation is made. The Commission considers an increase of approximately 37 per cent over TransGrid's next regulatory control period to be a substantial increase relative to the no rule change case. In any case, it is important to note that the Commission's draft and

final determination not to make the proposed rule does not rely on whether the near term increase in consumer prices is considered substantial or otherwise.

The Commission is required to assess whether a proposed rule change is in the long term interests of consumers. In this regard, any consideration of inter-generational wealth transfers needs to assess NPV neutrality from the perspective of consumers using discount rates that reflect consumer risk profiles. Consumers, participating in the economy, are not uniformly provided with the opportunity to recover at least their efficient costs of living. Consumers face greater levels of uncertainty in respect of economic conditions, business prospects and their future employment, than a monopoly TNSP subject to economic regulation under the NER and NEL. The Commission therefore does not consider the AER's WACC to likely reflect consumer discount rates. Consumer group submissions on the rule change proposal also support that view. On this basis, the Commission does not consider that NPV neutrality for a TNSP automatically leads to NPV neutrality in the long term interests of consumers.

Further, stakeholders have not provided any additional information in their submissions to the draft determination that would allow the Commission to form a view that there is not an inter-generational wealth transfer that would occur as a result of the rule change. The Commission therefore retains its view from the draft determination that the proposed rule change would create an intergenerational wealth transfer between current and future customers by substantially increasing costs for consumers in the near to medium term, with lower prices later in the life of the asset.

The Commission notes that ElectraNet's submission re-iterated its view that Project EnergyConnect delivers significant net benefits early in the project's life and that the impact of the rule change in terms of inter-generational revenue outcomes is reasonable and closely matches the profile of the benefits expected from Project EnergyConnect. ElectraNet's analysis had already been presented and considered by the Commission in making its draft determination. In considering ElectraNet's analysis in its draft determination, the Commission noted CEPA's observations that ElectraNet's analysis appears to compare a nominal revenue with discounted benefits. If (undiscounted) nominal revenues are compared to the undiscounted benefits, the alignment is much closer between the revenues under the current approach rather than the proposed rule change.<sup>219</sup>

### **Impact on the regulatory framework and relevant international examples**

Stakeholders commented on the Commission's draft determination that the proposed rule would represent a significant departure from established principles of regulation in Australia. Stakeholders commented that:

- the rule change would not change any of the incentive properties of the regulatory framework or planning arrangements that apply to transmission investments, including the ISP and RIT-T
- the proposed derogation would not distort market signals for investment

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<sup>219</sup> CEPA, financeability of ISP projects, final report, 27 January- 2021, p. 64.

- that the Commission had insufficiently considered international examples in determining that the proposed rule change was a significant departure from established principles of regulation

The Commission acknowledges that the rule change would not change the regulatory arrangements in respect of incentive arrangements, the ISP, or RIT-T. The Commission's draft and final determination is in respect of the principles of economic regulation of networks in Australia rather than network planning or regulatory cost benefit assessment requirements. The framework for economic regulation of networks in Australia has been stably based around the post tax revenue model (PTRM) as a key feature of regulation in Australia developed over the last twenty or more years. The Commission's draft determination considered that to change these arrangements for specific participants in relation to specific projects would undermine the AER's role in administering the regulatory framework and determining revenues, introduce substantial regulatory uncertainty to TNSPs not covered by this rule change and distort the achievement of efficient outcomes in both the NEM and financial markets by tilting the playing field towards TransGrid and its ISP projects relative to other TNSPs and non-network providers. The Commission therefore remains of the view that the proposal represents a significant departure from established principles of regulation.

The Commission notes that other jurisdictions utilise different models for the economic regulation of their networks. As noted by TransGrid and ElectraNet, the New Zealand Commerce Commission (NZCC) currently applies an unindexed RAB approach in its price determinations for Transpower. This approach for Transpower delivers ex-post nominal returns, which exposes both consumers and Transpower to the risk that out-turn inflation differs from the inflation expectation inherent in the nominal WACC. The Commission understands that this arrangement has a long history in New Zealand and the NZCC has at various times considered that very large increases in Transpower's RAB justified nominal cashflow investment support over indexation for inflation. The Commission also understands that the NZCC decisions were made in the context of notional gearing assumptions that are substantially lower, being 44 per cent in 2010 and 41 per cent in 2016 rather than 60 per cent as applied in the AER's 2018 RORI. Further discussion of the Transpower nominal returns model is provided in CEPA's advice published alongside this final determination.

While New Zealand utilises a different approach to its economic regulation of Transpower, the Commission does not consider this approach to be preferable in respect of a participant derogation for TransGrid. The Commission identifies that indexation provides a time profile of (average) prices that is more consistent with allocative efficiency and therefore efficient outcomes in the long term interests of consumers. The Commission also considers that to avoid creating distortions due to special treatment of certain projects by certain participants, changes to the PTRM should be carefully made in context of a holistic set of arrangements that apply to all participants.

## ABBREVIATIONS

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
BAU	Business as usual
Capex	Capital expenditure
Commission	See AEMC
CPI	Consumer price index
NEM	National electricity market
NEL	National Electricity Law
NEO	National electricity objective
NER	National Electricity Rules
NPV	Net present value
NSP	Network service provider
PADR	Project assessment draft report
PEC	Project EnergyConnect
Proponent	TransGrid
PTRM	Post tax revenue model
RAB	Regulatory asset base
RFM	Roll forward model
RPP	Revenue and pricing principles
Rules	See NER
TNSP	Transmission network service provider
VNI	Victoria New South Wales Interconnector
WACC	Weighted average cost of capital

## A LEGAL REQUIREMENTS UNDER THE NER

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this final rule determination.

### A.1 Final rule determination

In accordance with s. 102 of the NEL the Commission has made this final rule determination in relation to the rule proposed by ElectraNet. The Commission's final rule determination is not to make a rule.

The Commission's reasons for making this final rule determination are set out in sections 3.4 to 3.6 of this final rule determination, and in more detail in Chapters 4 to 6.

### A.2 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NEL to make the rule
- the rule change request
- submissions received in response to the consultation paper
- submissions received in response to the draft rule determination, and
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

The Commission had regard to the revenue and pricing principles set out in section 7A of the NEL in considering the rule change request.

There is no relevant Ministerial Council on Energy (MCE) statement of policy principles for this rule change request.

### A.3 Northern Territory

From 1 July 2016, the NER, as amended from time to time, apply in the Northern Territory, subject to derogations set out in regulations made under the Northern Territory legislation adopting the NEL (referred to here as the NT Act).<sup>220</sup> The NT Act provides for an expanded definition of the national electricity system in the context of the application of the NEO to rules made in respect of the Northern Territory, as well as providing the Commission with the ability to make a differential rule that varies in its terms between the national electricity system and the Northern Territory's local electricity system.

The Commission has determined not to make a rule and, consequently, has not made a differential rule in respect of the Northern Territory.

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<sup>220</sup> NT Act: National Electricity (Northern Territory) (National Uniform Legislation) Act 2015. Regulations: National Electricity (Northern Territory) (National Uniform Legislation) (Modifications) Regulation.



## B STAKEHOLDER SUBMISSIONS TO THE CONSULTATION PAPER

This appendix summarises stakeholder submissions to the consultation paper.

### B.1 Chapter 4 - Does the regulatory framework create a barrier for the financing of ISP projects?

#### B.1.1 Proponents submission to the consultation paper

TransGrid's submission to the Commission's consultation paper provided the following supplementary information on why it considers its share of ISP projects are not financeable under current arrangements.

##### Financeability of ISP projects

TransGrid reiterated that the rule change request had been triggered by the materiality of the capital investment required for its ISP projects. According to TransGrid, both the size of investment and the deferral of the recovery of revenue to the latter years of its life have a material impact on its ability to finance the ISP projects within the benchmark requirements of the NER.<sup>221</sup> The proponent claimed that its rule change request seeks to alter the revenue profile of the ISP projects to support the financeability of these projects, not to change their profitability.<sup>222</sup>

TransGrid submitted that their investors expect returns consistent with the regulatory benchmark.<sup>223</sup>

The clienteles of investors that are attracted to regulated energy networks have strong expectations that regulated returns will be available and consistent with the regulators estimate of efficient costs, including gearing levels and credit ratings that are assumed as regulatory benchmark. The substantially more back ended cash flow for the ISP projects means that such a gearing level cannot be maintained whilst also maintaining a prudent, strong investment grade credit rating, and so the character of the cash flows places a constraint on meeting the expectations of these investors.

TransGrid further claimed that:<sup>224</sup>

A TNSP should expect to be able to achieve the credit rating determined to be efficient for a regulated network service provider (in this case BBB+). The ability of a TNSP to do so should not rest on, or require, the profitability or leveraging of capital of its unregulated activities or reliance on concessional government financing initiatives.

If we proceed with PEC (and other ISP projects) under the current NER, we will cease

221 TransGrid, submission to the consultation paper, p. 8.

222 TransGrid, submission to the consultation paper, p. 6.

223 TransGrid, submission to the consultation paper, p. 13.

224 TransGrid, submission to the consultation paper, pp 3-4.

to be capable of satisfying the requirements of the entity conceptualised by the AER when setting the rate of return. That is, we will cease to be able to earn the rate of return as determined for the benchmark efficient entity by the AER. This is not because of factors that are within our control, that is, this is not caused by a failure by us to be efficient. Rather, it is because of the delayed recovery of revenue under the current NER and PTRM.

TransGrid claimed that, after working closely with the AER and other stakeholders to find an alternative solution, the AER concluded that the financeability issue is unable to be resolved within the existing regulatory framework and a rule change is the most efficient solution.<sup>225</sup>

### FFO/Net Debt

To illustrate the importance of the FFO/net debt metric in the credit rating assessment, TransGrid submitted that:<sup>226</sup>

FFO/net debt for a benchmark efficient entity is entirely driven by the regulatory framework (a network service provider cannot independently change the regulated returns, revenue, profile of revenue, RAB or RAB debt). Therefore, this demonstrates the challenge we are facing within the regulatory framework when considering the investment decision for our share of the ISP projects. An example to highlight our concern is the recent credit rating downgrade for ElectraNet which demonstrates:

1. the willingness of credit rating agencies to downgrade TNSPs, and
2. the credit rating agencies' focus on cash flow metrics as a key determinant of a credit rating upgrade or downgrade, in particular FFO/net debt and net debt/RAB.

### RAB multiples

Finally, in response to the consultation paper question on why a transmission business may change hands for an implied enterprise value to RAB ratio of greater than one TransGrid responded that:<sup>227</sup>

RAB multiples implied by transactions outcomes reflect a wide range of factors. The existence of RAB multiples above one is not an indicator of the financeability required for the actionable ISP projects. There are two key reasons for this which are outlined below. First, the price paid includes the value of both the 'regulated' business and the 'contestable' business, as well as expected benefits that are factored in by the purchaser such as efficiency gains and future investment opportunities. Secondly, a RAB multiple above one paid in a transaction does not mean that investment funds can be attracted in future activities, particularly where the financial characteristics of those activities are materially different to the RAB activities. Corporate finance tells us investment decisions are efficiently made by an assessment of the future cash flows

<sup>225</sup> TransGrid, submission to the consultation paper, p. 13.

<sup>226</sup> TransGrid, submission to the consultation paper, p. 5.

<sup>227</sup> TransGrid, submission to the consultation paper, p. 12.

and risks of the project, not past decisions.

### B.1.2

#### Other stakeholder submissions

This section summarises submissions to the consultation paper on whether ISP projects are financeable under the current regulatory framework.

#### **Are ISP projects financeable under the current regulatory framework?**

In general, stakeholders recognised the unprecedented size of actionable ISP projects. However, views were split on whether these projects are financeable under the current regulatory framework.

Of those stakeholders that considered that ISP projects are financeable under existing arrangements, the following comments were made:

- financing challenges TNSPs face on large investments are not unique and are faced by other firms with revenue streams that increase with inflation, for example through long term contracts or regulation,<sup>228</sup>
- much of the case rests on presentation of the indicative financeability of a standalone “notional project” which is meaningless in the context of the financeability of a regulated network, which is the matter under consideration,<sup>229</sup>
- the low risk regulated returns available for network investment would be considered attractive to both TNSPs and providers of finance, particularly given current low interest rates.<sup>230</sup>

Some stakeholders noted that the proposed cash flow profiles would not be consistent with those of real world alternatives to transmission augmentations, such as generation, in that generation only delivers positive net revenues to its ultimate beneficiaries when it is delivering output.<sup>231</sup>

AGL also pointed out that while the existing economic regulatory framework does include a delay between when network expenditure is incurred and when revenue is received, this is by design.<sup>232</sup>

PIAC was not convinced that the proponents had made a convincing case that ISP projects would not be financed without the proposed derogation. As such, it considered that the project benefits claimed by TransGrid (and ElectraNet) are uncertain and out of scope of the proposed rule change.<sup>233</sup>

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228 AER, submission to the consultation paper, p. 3.

229 ENGIE, submission to the consultation paper, p. 2.

230 Submissions to the consultation paper: AGL, p. 2; ENGIE, p. 4.

231 Submissions to the consultation paper: AEC, Origin Energy.

232 AGL, submission to the consultation paper, p. 1.

233 PIAC, submission to the consultation paper, p. 2.

The AER's submission did not support the proposition that actionable ISP projects are not financeable under the current regulatory framework. The AER's submission to the consultation paper made the following key observations in this regard:<sup>234</sup>

- investment in PEC should decrease TransGrid's FFO/net debt metric but this does not in itself indicate a financeability issue or an issue with the regulatory framework<sup>235</sup>
- the existing framework has been shown to already provide investors with a stable and predictable regulatory investment framework that includes an ex-ante return on their investments
- the requested rule changes are likely to lead to a temporal misallocation of costs to consumers and will therefore lead to inequitable outcomes. The AER considered it important that those that pay for network expenditure are the same customers who receive the benefit of the expenditure
- while the regulatory framework provides service providers with a reasonable opportunity to recover at least their efficient costs, this does not require service providers to be able to achieve the benchmark assumptions used when making and applying the RORI at all times, and<sup>236</sup>
- the proponent's proposal accelerates regulatory depreciation, which reduces revenues later in the asset's life, worsening future financeability metrics and potentially leading to long term financeability issues.<sup>237</sup>

The AER's submission further explained that the benchmark assumptions used in making and applying the RORI are for the purpose of estimating an allowed rate of return that is commensurate with the efficient financing costs of the regulatory investments, but go no further. The AER explained that the regulatory framework does not require service providers to be able to achieve the benchmark assumptions used in making and applying the RORI at all times.<sup>238</sup>

The AER did, however, note that the 10-year trailing average cost of debt may not be appropriate for large, lumpy investments. The AER also observed that when setting the rate of return they tested 55 per cent gearing and found it didn't change materially.<sup>239</sup>

Other stakeholders which did not consider ISP projects were financeable under existing arrangements expressed the following views in their submissions to the consultation paper:

- financeability is a common issue for large ISP projects, including Marinus Link,<sup>240</sup>
- the existing regulatory framework for transmission creates a mismatch between when costs are incurred by the TNSP, and when revenues are recovered by the TNSP,<sup>241</sup>

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234 AGL, submission to the consultation paper, p 1.

235 AER, submission to the consultation paper, pp. 11-15.

236 AER, submission to the consultation paper, pp. 5, 8.

237 Ibid.

238 AER, submission to the consultation paper, pp. 4-5.

239 AER, submission to the consultation paper, p. 17.

240 TasNetworks, submission to the consultation paper, pp. 1-2.

241 ENA, submission to the consultation paper, p. 7.

- the interaction of the real return, the low rate of returns provided for by the rate of RORI and the large investment requirements are together creating the financeability issues,<sup>242</sup> and
- the rule change proposal provides further evidence that the current application of the regulatory framework is putting network businesses under threat of becoming unfinanceable at the benchmark credit rating assumed within the AER's estimate of the cost of capital.<sup>243</sup>

### **Financing of actionable ISP projects**

Stakeholders also pointed out that current capital market conditions should provide support to financeability of immediate ISP projects:<sup>244</sup>

- Engie suggested that if the proponent's claim that this no longer holds is true, a broader range of solutions, including competitive procurement should be considered.<sup>245</sup>
- Ausgrid considered that new investments effectively receive a financeability "cross subsidy" from older assets to younger assets which normally maintains reasonable profitability and credit metrics for the whole asset base.<sup>246</sup>
- The EUAA was not convinced that the TNSPs would not invest, noting that:<sup>247</sup>
  - the need for large ISP expenditures have been obvious for some years
  - TransGrid's presentation at the Macquarie investor conference<sup>248</sup> and the statement by OMERS when buying in to TransGrid<sup>249</sup> were supportive of large new investments
  - other publications indicate that new investments are attractive
  - the reportedly high RAB multiples paid by OMERS and by the other equity holders (noting the ENA's statements about the limitations to using RAB multiples) indicate that investors value regulated assets
  - when pressed TransGrid would not say that it would not invest, or that it would delay investment, and
  - recent NSW legislation provides alternative mechanisms to drive investment

### **Credit metrics**

Stakeholders made a number of observations regarding TransGrid's use of a single credit metric, being FFO/net debt, in support of their rule change request.

The MEU did not agree that FFO/net debt is the prime metric that results in the ISP projects being non-viable under the current rules.<sup>250</sup> This view was supported by the AEC who

242 ATCO, submission to the consultation paper, p. 7.

243 AusGrid, submission to the consultation paper, p. 2.

244 ENGIE, submission to the consultation paper, p. 4.

245 ENGIE, submission to the consultation paper, p. 4.

246 AusGrid, submission to the consultation paper, p. 6.

247 EUAA, submission to the consultation paper, pp. 8-11.

248 [https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02233057-2A1224339?access\\_token=83ff96335c2d45a094df02a206a39ff4](https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02233057-2A1224339?access_token=83ff96335c2d45a094df02a206a39ff4)

249 <https://www.omers.com/news/transgrid-welcomes-omers-to-its-ownership-group>

250 MEU, submission to the consultation paper, p. 8.

expressed reservations about this claim and noted that the stability of the Australian regulatory regime should offer some support to prospective lenders to TNSPs.<sup>251</sup>

Ausgrid identified that rating agencies do place significant weight on qualitative factors as part of their credit scoring process while also identifying a stable regulatory environment and ownership models as factors which drive up the credit rating. Ausgrid also noted that a drop in the FFO/net debt value for a sustained period can result in a downgrade.<sup>252</sup>

The AER didn't consider an expected change in forecast financial metrics at a given debt to equity ratio as indicative of a financeability issue, or that there is a regulatory framework problem.<sup>253</sup> The AER noted that it considered hypothetical FFO/net debt extensively when it made the 2018 RORI. In determining to not use a financeability assessment to inform its rate of return, the AER specifically considered whether the regulated return should be sufficient for all regulated firms to finance their operations.

### **Support for a review of financeability**

Several stakeholders expressed support for a future review of the financeability of large transmission projects in the NEM.

- The ENA agreed that the issues set out by the proponent represent particularly clear examples, given the scale of the investment, of broader emerging concerns around the financeability for new investment across electricity and gas distribution networks, and electricity transmission networks. As an example, ENA points to recent negative cash returns on equity experienced by network service providers following the 2018 RORI.<sup>254</sup>
- ENGIE also indicated a preference for a wider review considering how large transmission projects will be financed in the future.<sup>255</sup>
- TasNetworks, Ausgrid, ATCO, and the ENA suggested that financeability solutions should be considered for application more broadly.<sup>256</sup>

## **B.2 Chapter 5 - What options are there to manage financeability of ISP projects?**

This section summarises observations made in stakeholder submissions to the Commission's consultation paper, and advice from the Commission's consultant CEPA relevant to options for managing financeability.

### **Flexibility available to TransGrid for managing financeability**

Stakeholders and CEPA observed that TNSP are free to adopt different capital structures under existing regulatory arrangements.

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251 AEC, submission to the consultation paper, p. 2.

252 Ausgrid, submission to the consultation paper, pp. 8-9.

253 AER, submission to the consultation paper, p. 11.

254 ENA, submission to the consultation paper, p. 9.

255 Engie, submission to the consultation paper, p. 1.

256 Submissions to the consultation paper: TasNetworks, pp. 1-2; AusGrid, p. 2; ATCO, p. 1; ENA, p. 1.

The AER's submission to the consultation paper made the following overarching observation on the flexibility available to TransGrid to under existing arrangements to adopt a range of practices to manage financeability:<sup>257</sup>

...financeability is substantially impacted by the practices and choices made by the firm itself. Regulated firms can, and do, engage in a range of practices specific to managing their own operations. This includes adopting individual financing and capital structure decisions to accommodate circumstances and management choices.

Additional comments made in the AER's submission included:

- that the benchmark assumptions used in making and applying the rate of return instrument (RORI) are for the purpose of estimating an allowed rate of return that is commensurate with the efficient financing costs of the regulatory investments, but go no further. The AER explained that the regulatory framework does not require service providers to be able to achieve the benchmark assumptions used in making and applying the RORI at all times.<sup>258</sup>
- The AER did not consider that service providers should be able to achieve (or better) the benchmark assumptions, including gearing assumptions, at all times.<sup>259</sup>

### **Gearing ratios**

Stakeholders particularly commented on the flexibility available under existing arrangements for TransGrid to address financeability issues by varying its gearing ratio of debt to equity:

- AGL's submission to the consultation paper identified that TransGrid remains free to determine the level of leverage to adopt. AGL considered that the low risk regulated returns available for network investment would be considered attractive to both TNSPs and providers of finance.<sup>260</sup>
- The AER's submission also showed that gearing levels below 60 per cent are common and indeed the average gearing level is below 60 per cent.
- The AER further noted that, based on its cash flow forecasts, it appeared TransGrid would broadly maintain a FFO/net debt financial metric consistent with its current credit rating if it adopts a gearing of around 55 per cent debt to 45 per cent equity. The AER considered that such a gearing level is within the gearing range regulated firms have operated at over the past 5 years:<sup>261</sup>

In its advice to the Commission, CEPA also observed that any required adjustments to gearing levels required to maintain FFO/net debt ratios could be relatively modest. For their Project Energy Connect scenario:<sup>262</sup>

under the current regulatory framework with average gearing of 56 per cent over the

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<sup>257</sup> AER, submission to the consultation paper, p. 2.

<sup>258</sup> AER, submission to the consultation paper, pp. 4-5.

<sup>259</sup> AER, submission to the consultation paper, p. 6.

<sup>260</sup> AGL, submission to the consultation paper, p. 1.

<sup>261</sup> AER, submission to the consultation paper, p. 12.

<sup>262</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 27.

first three regulatory periods, or 57 per cent over the entire period modelled, the TNSP could maintain FFO/net debt ratios consistent with those achieved under the rule change scenario

CEPA also made observations on the flexibility in gearing available in jurisdictions where regulatory arrangements include financeability tests:<sup>263</sup>

...in jurisdictions where financeability assessments *are* a key element of the regulatory framework, it is not uncommon for:

- Notional gearing levels to change over time, and in particular for regulators to assume that the notional company would need to make equity injections to reduce gearing levels, in order to address weaknesses in credit metrics (Text Boxes 4 and 5 below).
- Regulators to set notional gearing levels well below 60 per cent, and for regulated energy networks to have actual gearing levels below 60 per cent

This suggests that it is reasonable to expect that investors in Australian energy networks – including alternative future investors, as well as current shareholders – would anticipate the need for lower gearing levels in the context of an unprecedented program of investment.

### **Other financing instruments available to TransGrid to enhance financeability**

The energy consumers Australia (ECA) did not support the proposed rule change and instead considered that alternative, innovative approaches that avoid passing both cost and risk inappropriately on to electricity consumers with uncertainty around the timing of any benefits should be explored by the proponent.<sup>264</sup>

CEPA noted that there are a number of financing instruments that could be used to better match cash flows from investments in regulated assets.<sup>265</sup> For example, inflation linked bonds, where the inflation component is paid to investors on maturity, is a possible option for a company that wishes to reducing cash outflows during the term of the debt instrument. Likewise, zero coupon debt or hybrid securities could also reduce cash needs early on.

### **Impact on later asset life cash flows**

Concern was expressed about the proponent's proposal to bring regulated cash flows forward as this would reduce regulated cash flows in the future, meaning that there will be less cash flow available to support future investments. The AER noted that:<sup>266</sup>

The regulatory cash flows will be materially lower in the second half of the assets' lives and this may cause cash flow problems in the future. We have seen this impact in overseas jurisdictions where accelerated depreciation has been employed.

<sup>263</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, p. 40.

<sup>264</sup> ECA, submission to the consultation paper, p. 1.

<sup>265</sup> CEPA, Financeability of ISP Projects, Report for the AEMC, 27 January 2021, pp. 45-48.

<sup>266</sup> AER, submission to the consultation paper, p. 2.



The AER cited experience from the UK where Ofgem allowed cash flows to be brought forward through accelerated depreciation. This led to future financeability issues, creating a cycle where reduced cash flows were insufficient to cover later investments, requiring further intervention.<sup>267</sup> According to the AER, this is a long term risk associated with increasing cash flows in the short to medium term.

### B.3 Chapter 6 - TransGrid's proposed rule is unlikely to achieve the NEO

This section presents stakeholder observations on whether the proposed rule change promotes the achievement of the NEO. Stakeholders made observations in the following areas:

- the impact of the proposed rule change on consumers
- impact on the allocation of risk
- impact on the regulatory framework
- impact on regulatory compliance and administration costs
- implications for the timely delivery of ISP projects

#### **Impact on consumers**

Over half the stakeholders who responded to the consultation paper, including all consumer representatives, did not agree that the proposal was NPV neutral from a customer perspective. These stakeholders considered that the proposed changes would increase costs to consumers without providing corresponding benefits. In particular, stakeholders commented on the mismatch between the timing of costs and benefits for consumers under the proposed rule change.

- The AEC noted its reservations about customers paying for assets for which they are not receiving any benefit, since it does not accord with common accounting treatments. It considered that, given customer relationships will not be static for the multi-decade term of the projects, bringing forward revenue would create mismatches between customer prices and benefits which, in later years, are less certain due to the vagaries of the market.<sup>268</sup>
- Origin commented that that proposed changes would likely lead to a temporal misallocation of costs to consumers and will therefore lead to inequitable outcomes for consumers.<sup>269</sup>
- PIAC noted that the proposal would shift costs to current consumers who will not receive the full benefits of the ISP project and effectively cross-subsidise future consumers who will not be exposed to the full costs.<sup>270</sup>

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<sup>267</sup> AER, submission to the consultation paper, pp. 8-9.

<sup>268</sup> AEC, submission to the consultation paper, p. 2.

<sup>269</sup> Origin, submission to the consultation paper, pp. 1, 2.

<sup>270</sup> PIAC, submission to the consultation paper, p. 1.

- ECA was of the view that not only would the rule change proposals add to already high electricity costs in the short term, it would also run counter to the idea that consumers should pay in line with the benefits they receive by seeking to 'front-end' cost recovery from consumers.<sup>271</sup>
- Infigen did not support the proposed move to as incurred depreciation, noting that it would be highly unusual for consumers to pay for an asset before it exists and is utilised.<sup>272</sup>

In particular, a number of stakeholders were not convinced that the NPV neutrality argument put forward by TransGrid was an effective way to show consumer indifference between two outcomes.<sup>273</sup>

- The EUAA questioned why it was appropriate to apply the same discount rate to benefits (which are uncertain) as is applied to costs (which are certain).<sup>274</sup> The EUAA was also concerned by the lack of consumer engagement undertaken by the proponents to establish the intergenerational discount rates of consumers, and whether today's consumers are willing to pay a certain amount today to provide consumers in 20-30 years' time with a very uncertain benefit.<sup>275</sup>
- Similarly, the MEU considered that the analysis should include a discount rate that reflects the risk profiles of consumers rather than the risk profile faced by NSPs. It considered that if a higher discount rate was used, the different approaches to setting cashflow would not be neutral.<sup>276</sup>
- ERM Power also considered that with costs incurred upfront and benefits delivered over the long term, it is more likely that consumers will find that the NPV benefits are negative and that the approach proposed in the rule change will cost consumers more. It also noted that while it acknowledged the impact on households may only be a few dollars per year, this ignores the impacts on commercial and industrial users who consume far more energy and as such will be burdened with far higher costs.<sup>277</sup>
- Energy Consumers Australia (ECA) was concerned about the ability of consumers to pay more at this time, particularly given the evidence of COVID-19 induced financial stress. ECA was also concerned about shifting risks on to consumers by bringing cash flows forward.<sup>278</sup>

The AER also disagreed with the level of financial impact on consumers from the proposed rule change. The AER considered that the average household would pay an additional \$6.5 per year over the next two regulatory control periods, and then would pay \$5 less per year over 2040-50.<sup>279</sup>

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271 ECA, submission to the consultation paper, p. 3.

272 Infigen, submission to the consultation paper, p. 2.

273 EUAA, submission to the consultation paper, p. 11; MEU, submission to the consultation paper, p. 6.

274 EUAA, submission to the consultation paper, p. 11.

275 EUAA, submission to the consultation paper, pp. 11, 12.

276 MEU, submission to the consultation paper, p. 6.

277 ERM Power, submission to the consultation paper, pp. 2, 3.

278 ECA, submission to the consultation paper, p. 3.

279 AER, submission to the consultation paper, p. 9.

TransGrid reiterated its view that it did not consider that the proposed changes would change the costs, benefits or risks of their share of the ISP projects for consumers. It explained that the impetus for the rule change request was that, under the current regulatory methods, the ISP projects would not be financeable, and so there was a risk that these would not be built or would not be delivered in a timely manner. It considered that placing a substantial weight on perceptions of intergenerational equity focused solely on transmission revenues creates a risk that consumers ultimately may be made worse off.<sup>280</sup>

ElectraNet reiterated the importance of the proposal to support the financeability and timely delivery of PEC. It considered that proposed changes would deliver a revenue profile more closely aligned with the profile of customer benefits and improve inter-generational equity by reducing the cost burden on future customers. It also noted that the proposed changes would not impact the total capital cost of the project, meaning there would be no increase in revenue in present value terms, but result in substantially lower total revenues on an undiscounted basis.<sup>281</sup>

Several stakeholders however commented in support of TransGrid's observation that the rule change request is neutral from a net present value perspective.

- ENA noted that the proposed change has no impact on the total amount of revenue recovered by the TNSP in present value terms.<sup>282</sup>
- The CEC considered that consumers over time will not be worse off under the proposed changes as increases in revenue recovery now are offset by decreases towards the later stages of the asset's life.<sup>283</sup>

A number of stakeholders agreed with the proponent that while the proposed changes may increase costs to current consumers, future consumers would pay less.

- the CEC was of the view that any increase to consumer bills would not be material and in the context of the net benefits and wholesale price reductions that the ISP build out would provide, this increase was acceptable.<sup>284</sup>
- Infigen was also of the view that while short-term costs to consumers would increase slightly, this would be offset by longer-term gains. It suggested that it was credible that under current low interest rates, residential consumers in particular may preference a lower discount rate than TransGrid and hence deliver a lower NPV of costs for consumers.<sup>285</sup>
- While TasNetworks was supportive of the proposed changes, it recognised that they would increase charges to customers in the near-term and that all alternative solutions that minimise customer price impact should be considered, including Commonwealth

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280 TransGrid, submission to the consultation paper, p. 11.

281 ElectraNet, submission to the consultation paper, p. 14.

282 ENA, submission to the consultation paper, p. 7.

283 CEC, submission to the consultation paper, p. 1.

284 CEC, submission to the consultation paper, p. 1.

285 Infigen, submission to the consultation paper, p. 2.

support for financing and use of financial market products, for example extending tenure of debt or swapping floating for fixed debt.<sup>286</sup>

### **Impact on risk allocation**

PIAC and the ECA expressed concern that the proposed rule change would transfer risk from network operators to consumers. Both considered that consumers, unlike the TNSP or their investors, have very little ability to manage the risks associated with ISP projects and therefore considered it is inappropriate for them to bear them.<sup>287</sup>

Other stakeholders specifically observed that inflation and project completion risks would shift to consumers under the proposed rule change.

- The EUAA and ERM identified that the move from a real rate of return framework to a nominal return framework would shift inflation risk to consumers but noted that there had been no explicit mention of this in the proponent's proposals.<sup>288</sup> The EUAA specifically noted the significance of this for consumers.<sup>289</sup>
- Origin also noted that existing consumers would face the risk of non-delivery until the project is completed and that it was not clear that it would be efficient to recover costs early.<sup>290</sup>
- Infigen didn't support the proposed change to as incurred depreciation noting that the high construction risks would not be offset by any compensatory benefits to consumers over the same period, resulting in a greater step change in costs to consumers in the near-term.<sup>291</sup>

TransGrid's submission to the consultation paper reiterated the view that the rule change was not seeking to amend the way that inflation is applied by the AER or the way that the AER determines the nominal cost of capital. Rather, its purpose is to apply the forecast nominal cost of capital to a real asset base.<sup>292</sup>

### **Impact on the regulatory framework**

Stakeholders were concerned that the proposed rule change would create a precedent for other TNSPs to pursue potentially leading significant impacts on consumers:

- The MEU and ERM expressed concern that the rule changes would create a precedent for future ISP projects and potentially all network investments.<sup>293</sup> ERM Power considered that a blanket change to regulated network cost recovery rules would lead to an unacceptable cost increase for consumers.<sup>294</sup>

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286 TasNetworks, submission to the consultation paper, p. 2.

287 PIAC, submission to the consultation paper, p. 1; ECA, submission to the consultation paper, p. 3.

288 EUAA, submission to the consultation paper, p. 5; ERM Power, submission to the consultation paper, p. 3.

289 EUAA, submission to the consultation paper, p. 5.

290 Origin, submission to the consultation paper, p. 2.

291 Infigen, submission to the consultation paper, p. 2.

292 TransGrid, submission to the consultation paper, p. 9.

293 MEU, submission to the consultation paper, pp. 9-10; ERM Power, submission to the consultation paper, p. 2.

294 ERM Power, submission to the consultation paper, p. 2.

- Similarly, PIAC was concerned that if other network businesses pursue similar derogations, costs for consumers would increase and certainty to stakeholders and investors regarding the treatment of future transmission projects would be undermined.<sup>295</sup>
- Infigen and AGL considered that any changes should apply to all network investments.<sup>296</sup>
- TasNetworks noted that it would support the ENA proposing that the changes (if made) be available to all large renewal ISP projects that face the same problem.<sup>297</sup>

A number of stakeholders considered the issues raised in the rule change request highlighted broader emerging problems with financeability of larger transmission projects under the existing framework and that these emerging problems highlighted the need for regulatory framework reform in the interests of consumers.<sup>298</sup> TasNetworks considered that the AER's Transmission Investment Review may be an appropriate forum to address how agreed principles relating to financeability would be available more broadly to projects that share the problem.<sup>299</sup>

### **Impact on regulatory compliance and administration costs**

The AER suggested the AEMC explicitly consider the impact of the proposed derogation on regulatory compliance and administration costs, which it considered are likely to increase somewhat with the creation of a second RAB.<sup>300</sup> The AEC was also of the view that establishing a second RAB would increase the difficulty of the AER's task and complicate the ability of stakeholders to scrutinise TNSPs' regulatory returns.<sup>301</sup>

While ElectraNet noted that the practicalities of a second RAB would need to be considered, it did not consider this to be administratively costly or complex. It also noted that the establishment of a second RAB also provides a level of transparency and rigour that is appropriate from a regulatory perspective.<sup>302</sup>

### **Implications for the timely delivery of ISP projects**

PIAC was not convinced that the proponents had made a convincing case that ISP projects would not be financed without the proposed derogation. As such, it considered that the project benefits claimed by TransGrid and ElectraNet are uncertain and out of scope of the proposed rule change.<sup>303</sup>

In contrast, Snowy Hydro considered it was critical that the timely delivery of actionable ISP Projects is given appropriate weight in the Commission's assessment of this rule change request.<sup>304</sup> The CEIG also suggested that the AEMC carefully consider the potential costs for

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295 PIAC, submission to the consultation paper, p. 2.

296 Infigen, submission to the consultation paper, p. 2; AGL, submission to the consultation paper, p. 2.

297 TasNetworks, submission to the consultation paper, p. 2.

298 Submissions to the consultation paper: ENA, p. 5; ShowyHydro, p. 2; ENGIE, p. 1; TasNetworks, p. 2.

299 TasNetworks, submission to the consultation paper, p. 2.

300 AER, submission to the consultation paper, p. 4.

301 AEC, submission to the consultation paper, p. 1.

302 ElectraNet, submission to the consultation paper, p. 12.

303 PIAC, submission to the consultation paper, p. 2.

304 SnowyHydro, submission to the consultation paper, p. 2.

consumers of ISP projects being delayed or not built if financeability issues are not resolved, and the potential long-term implications for the optimal development of the power system.<sup>305</sup>

The AER noted that, irrespective of the outcome of the rule change process, there was a risk that TransGrid and ElectraNet might not go ahead with PEC, meaning there would always be a risk that the benefits from this project would not be realised.<sup>306</sup>

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305 CEIG, submission to the consultation paper, p. 3.

306 AER, submission to the consultation paper, p. 3.

## C CREDIT RATINGS TYPES AND MEANINGS

Table B1 shows how the credit ratings of Moody's and Standard & Poor's compare.

**Table C.1: Credit rating comparison Moody's and S&P**

<b>S&amp;P'S</b>	<b>MOODY'S</b>	<b>GRADE</b>
AAA	Aaa	Prime
AA+	Aa1	High grade
AA	Aa2	High grade
AA-	Aa3	High grade
A+	A1	Upper medium grade
A	A2	Upper medium grade
A-	A3	Upper medium grade
BBB+	Baa1	Lower medium grade
BBB	Baa2	Lower medium grade
BBB-	Baa3	Lower medium grade
BB+	Ba1	Non-investment speculative
BB	Ba2	Non-investment speculative
BB-	Ba3	Non-investment speculative
B+	B1	Highly speculative
B	B2	Highly speculative
B-	B3	Highly speculative
CCC+	Caa1	Substantial risk
CCC	Caa2	Extremely speculative

Source: Moody's and Standard & Poor's