



# A proposed financeability test for Priority Transmission Infrastructure Projects in NSW



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# 1 Overview

1. Under the NSW *Electricity Infrastructure Investment Act (2020)* (the Act), the State has capacity to identify Priority Transmission Infrastructure Projects (PTIPs) and to appoint a project proponent. The Waratah Super Battery (WSB) is the first PTIP to be delivered under this scheme. The State considers that this project will produce a number of public benefits including allowing NSW consumers to access more energy from existing generators and stimulating more than \$1 billion of private investment in new energy storage and network augmentations.<sup>1</sup> In October 2022, Transgrid was appointed as network operator for this project and was directed by the NSW Minister for Energy to deliver this project.
2. Under the Act, Transgrid may be directed, as a network operator, to deliver other PTIPs.
3. Under the NSW PTIP scheme, the Australian Energy Regulator (AER) will issue separate regulatory determinations for each project according to the requirements of the Act.
4. Frontier Economics has been engaged by Transgrid to prepare a report on 'financeability' considerations in the context of regulatory determinations for projects under the NSW PTIP scheme.
5. The key issue here is that the existing regulatory regime was designed for 'business as usual' operations, whereby the existing network is maintained and any expansion is marginal, relative to the existing network. It is not clear that this framework is fit for purpose in the context of the very significant investment that is now required to expand transmission networks to support new sources of electricity generation.
6. In particular, the business-as-usual regulatory framework provides minimal regulatory allowances during the early years of such network expansion projects, which can make it difficult to finance these projects on commercial terms. Whereas it may have been possible for a firm to absorb this regulatory shortfall for minor expansion capital expenditure (capex), that is not possible in the current circumstances where very significant augmentation of transmission networks is required.
7. Consequently, we have been asked to develop a simple regulatory test that would:
  - a Enable each new project under the PTIP scheme to 'stand on its own two feet' such that it can support the finance that is required on commercial terms;
  - b Provide investors with no more than the AER's allowed return on capital; and
  - c Is consistent with the NPV=0 principle such that investors can expect just to be made whole over the expected life of the asset.
8. It is particularly important that any such test is objective, replicable and known in advance. This is because it is essential that the proponent firm, and its investors, can be clear about how financeability issues will be identified and remedied *prior* to making an effective commitment to proceed with the project. Under the framework established by the Act, the point at which the investors in an appointed network operator would effectively be committed to the project is when the operator is directed by the Minister to deliver a PTIP. Section 35 of the Act requires a network

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<sup>1</sup> <https://www.energyco.nsw.gov.au/projects/waratah-super-battery>.



operator that has been directed by the Minister to deliver a PTIP to comply with such a direction and sets out penalties for failing to comply. There is effectively no option for the network operator to decline to deliver a PTIP once it has been appointed the network operator and directed by the Minister.

9. This means that investors must know in advance of committing to the project exactly what would constitute a failure of the financeability test and, if the test were to be failed, how that failure would be remedied. Furthermore, the test would need to be perfectly replicable by an independent third party. In our view, unless these conditions are met, investors would not have sufficient certainty about how potential future financeability problems will be remedied through the regulatory process.
10. A situation where investors are expected to commit in advance to a PTIP *before* it is known exactly how the regulator will assess whether a financeability problem might exist, or how any such financeability problem would be remedied would not be commercially workable from the perspective of investors.
11. In our view, these requirements rule out non-binding and non-prescriptive guidelines on how the regulator may assess the financeability of such projects, because this would leave too much unresolved uncertainty for investors about how the regulator may assess the financeability of the project at the time it makes a revenue determination, which may be several years after a commitment to the project has been made by investors.
12. The basis of our proposed test is that the regulatory allowance each year should be sufficient to support the regulator's benchmark credit rating (currently BBB+) at the regulator's benchmark gearing (currently 60%). That is, the regulatory allowance should be consistent with what the regulator considers to be efficient commercial financing terms.
13. Our proposed test makes no adjustment to the business-as-usual regulatory framework unless it can be demonstrated that the allowed revenues are insufficient to support the AER's benchmark financing parameters.
14. In the event that the regulatory allowance falls short of what the regulator considers to be efficient commercial financing terms, we propose that the regulatory allowance be increased by accelerating the depreciation allowance in an NPV-neutral manner. The acceleration of allowed cash flows would be the minimum that is required to support the AER's benchmark financing parameters.
15. Thus, our proposed remedy:
  - a Makes no change to the NPV of allowed revenues;
  - b Makes no change to the allowed return on equity or debt; and
  - c Is just sufficient to support the AER's benchmark financing parameters.



## 2 The nature of the ‘financeability’ issue

16. We begin with a clear statement of the nature of the ‘financeability’ problem that is addressed in this report.
17. Our starting point is the assumption that the AER’s approach produces an allowed return on capital that properly reflects the commercial returns required by network debt and equity investors. Thus, the financeability issue that we consider in this report has nothing to do with the level of allowed returns, and the test that we propose does not seek to change the level of allowed returns.
18. As part of its approach to determining allowed returns, the AER publishes a set of benchmark financing parameters. This reflects the AER’s assessment of the efficient financing practice of the benchmark efficient firm. For example, the AER has concluded that a benchmark efficient firm would raise 60% of its finance via debt at a BBB+ credit rating. The AER then sets allowed returns on the basis of those benchmark financing parameters.
19. The financeability issue that we seek to address in this report is the case where, for important new projects such as the WSB, regulated cash flows are insufficient to support the benchmark efficient financing parameters on which that allowance is based. Specifically, we define a ‘financeability’ issue to arise in the circumstances where the regulated cash flows are insufficient to support the regulator’s benchmark credit rating (BBB+) at the regulator’s benchmark gearing (60%).
20. In these circumstances, it would be impossible for the benchmark firm to be able to finance the project in accordance with the regulator’s efficient benchmark financing parameters. It is this ‘financeability’ issue that we seek to address in this report.



## 3 The proposed regulatory test

### 3.1 The regulatory principle of internal consistency

21. Our view is that best practice regulatory determinations are internally consistent. In the context of projects under the PTIP scheme, this means that the regulatory allowance each year should be sufficient to support the regulator's benchmark credit rating (currently BBB+) at the regulator's benchmark gearing (currently 60%). This internal consistency would be tested for the benchmark firm using the relevant PTRM.
22. In our view, this internal consistency is axiomatic to sound regulatory practice. Indeed, it is difficult to conceive of any reasonable argument against such internal consistency. Rather, it would be incongruous for a regulator to assume that a benchmark efficient firm would raise a certain amount of debt at a certain credit rating, but then to set a regulatory allowance that does not support that assumed efficient financing practice.
23. It is important that this internal consistency is tested for the benchmark firm only, rather than the actual proponent of the project. Under incentive-based regulation, firms are free to depart from regulatory benchmarks, but any such departure has no implications for allowed revenues or prices paid by consumers. The regulator sets allowances for the benchmark efficient firm adopting what the regulator considers to be the benchmark efficient financing practice. The regulatory allowances to the benchmark firm should be sufficient to support the regulator's assumed efficient financing practice.

### 3.2 The principles underpinning the proposed test

#### Key principles

24. For the reasons set out above, our view is that the regulatory allowance each year should be sufficient to support the regulator's benchmark credit rating (currently BBB+) at the regulator's benchmark gearing (currently 60%). Thus, what is required is a test of whether or not a particular regulatory allowance in a particular year is sufficient to support the benchmark parameters that define the regulator's assumed efficient financing strategy.
25. In our view, the design of any such test should satisfy the following principles in order to provide investors with sufficient confidence to commit capital to PTIP scheme projects:
  - a **Objectivity:** The test should be objective, such as in the form of a prescribed formula, rather than subjective, being based on the judgment or discretion of the regulator.
  - b **Predictability:** The test should be one that produces the same outcome regardless of who implements it. A 'test' that is characterised by vagueness and discretion might produce different conclusions and outcomes depending on who might be implementing that test. Thus, a given set of data inputs should always produce the same outcome/conclusion.
  - c **Replicability:** Related to the previous principle, it should be possible for any stakeholder to implement the test from a given set of data inputs and predictably produce the same outcome.



- d **Transparency:** The rationale/basis for the test should be clearly explained in advance, any inputs should be clearly and objectively defined, and no private information or judgment should be required to implement the test.
  - e **Timeliness:** The nature of the test should be known to investors at the time of effective commitment to the project.
26. As we explain below, in the event that a financeability issue is identified in any year of the regulatory period, our proposed regulatory remedy is that the regulated cash flows are increased such that they *do* support the benchmark credit rating at the benchmark gearing. In our view, any proposed remedy should have regard to the following principles:
- a **NPV=0:** Any acceleration of allowed revenues should be NPV neutral.
  - b **Clarity:** It should be clear to all stakeholders precisely what actions the regulator would take to remedy any identified financeability issue.

#### Assessment of alternative approaches

27. We explain below that our proposed formulaic test is consistent with all of the above principles. Before committing to a project, investors would know:
- a The specific form of the test that would be applied; and
  - b For any given set of input parameters:
    - i The outcome that the test would produce; and
    - ii The precise nature of any regulatory remedy that would be applied.
28. An alternative to our proposal of an objective formulaic test would be to give discretion to the regulator to exercise judgment as it sees fit in its regulatory determination for the proposed project. This judgment could extend to the consideration of:
- a Whether there is any financeability issue that needs to be addressed; and
  - b If so, what regulatory remedy should be applied.
29. The key problem with this alternative approach is that the uncertainty faced by investors about how the regulator might deal with financeability issues would not be resolved until *after* the proponent is effectively committed to proceed with the project. If it turns out that the project is not financeable, but the regulator (through the exercise of its discretion) does not take appropriate action to address the problem, then the project would no longer be financeable. Given the possibility of such an outcome, the initial commitment from investors to proceed with important projects such as WSB may not be forthcoming.
30. Under the NSW regime:
- a The need for a particular project is identified via a public benefit assessment;
  - b The project proponent then incurs material costs consulting stakeholders, designing the project, and funding early works; and
  - c The AER subsequently issues a regulatory determination in relation to that project.
31. This process effectively creates a social obligation for the proponent to deliver the project before the regulatory determination is issued. Once the project and its public benefits have been identified, the proponent has no real option but to deliver the project. Declining to proceed with





the project once it becomes clear whether/how the regulator may deal with any financeability issues that might arise as a consequence of regulator’s revenue determination for the project would not be a viable option, given that social obligation.

32. In other words, there is no real prospect of a network operator abandoning such a project after the regulatory determination has been finalised. Once a firm has been formally appointed network operator for a PTIP and has been directed by the Minister to deliver it, that firm would for all intents and purposes be committed to that project.
33. Thus, the proponent (and its investors) would effectively be asked to commit to the project without knowing how the regulatory framework might deal with any identified financeability issue — or even whether the regulatory process would successfully identify a financeability problem. This may deter investors from committing capital that would otherwise be forthcoming if investors could have confidence at the start of the process that the regulatory framework will properly identify and address any financeability problems that might arise.
34. By contrast, an objective formulaic approach would provide the certainty required by investors from the outset. Before committing capital to a project, investors would have clarity about how financeability issues will be identified and remedied – should they arise.

### 3.3 The proposed test

#### Formulaic specification

35. The purpose of the proposed test is to determine whether the regulatory allowance each year is sufficient to support the regulator’s benchmark credit rating (currently BBB+) at the regulator’s benchmark gearing (currently 60%).
36. This test would be applied in each regulatory year using information extracted for the benchmark project using the PTRM. This is consistent with the AER’s observation that such a test should be applied to the benchmark efficient firm (rather than to an actual business):

*We acknowledge that financeability tests can help assess whether a hypothetical entity with a capex program, gearing and level of risk, reflected in our rate of return allowance, can raise debt at the credit rating consistent with the benchmark credit rating.<sup>2</sup>*

37. The precise form of the proposed test we propose is as follows:

$$35.71\% \frac{FFO/ND_t}{9.0\%} + 28.75\% \frac{FFO ICR_t}{2.4} + 35.71\% \frac{Gearing_t}{Gearing_t} \geq 1,$$

where:

- $t$  is the regulatory year;
- $FFO/ND$  is the Funds From Operations (FFO) to net debt ratio calculated using the AER’s PTRM;

<sup>2</sup> AER, Overall rate of return, equity and debt omnibus, Final working paper, December 2021, p. 124.



- 9.0% is the benchmark BBB+ threshold for the FFO to net debt ratio;
  - *FFO ICR* is the FFO interest coverage ratio calculated using the AER's PTRM;
  - 2.4 is the benchmark BBB+ threshold for the FFO interest coverage ratio; and
  - *Gearing* is the benchmark level of gearing specified in the applicable rate of return instrument.
38. The three financial metrics specified in the proposed formula—the FFO to net debt ratio, the FFO interest coverage ratio and the gearing ratio—have been selected because these are the three key financial metrics that Moody's has regard to when conducting rating assessments of regulated energy networks in Australia. The information (e.g., allowed revenues, estimated efficient costs, benchmark gearing and quantity of debt) required to calculate these three metrics would be obtained from the relevant PTRM used to set the allowed revenues.
39. The proposed benchmark thresholds for the FFO to net debt ratio (9.0%) and the FFO interest coverage ratio (2.4x) are consistent with the minimum ratios that Moody's has indicated would need to be achieved in order to be upgraded from a rating of BBB (i.e., Moody's Baa2) to a rating of BBB+ (i.e., Moody's Baa1) in recent rating decisions for regulated energy networks in Australia. The proposed threshold for the gearing ratio (the numerator in the third term of the formula) is defined to be equal to the benchmark level of gearing specified in the 2022 RoRI, since the benchmark regulated business is modelled in the AER's PTRM as always maintaining the benchmark level of gearing (currently 60%). Since the numerator and denominator of the third term are defined to be the same, the third term will always equal 1.
40. The proposed financeability formula computes the ratio of each financial metric and its respective benchmark BBB+ threshold. A ratio of at least 1 would indicate that, on that particular metric, there are sufficient expected cash flows available in the regulatory year to support the benchmark BBB+ credit rating. A ratio lower than 1 would indicate that, on that metric, there are insufficient expected cash flows available in the regulatory year to support the benchmark BBB+ credit rating.
41. The financeability formula then calculates the weighted average of each of these three ratios to derive an overall weighted financeability score in each regulatory year. If the weighted financeability score in a given year is at least 1, the expected regulated cash flows in that year would be deemed sufficient to support the BBB+ benchmark credit rating, and no additional depreciation allowance would be brought forward in that year.
42. However, if the weighted financeability score in a given year is less than 1, then the expected regulated cash flows in that year would be deemed insufficient to support the BBB+ benchmark credit rating. In these circumstances, the AER would be required under our proposed test to increase the depreciation allowance in that year until the weighted financeability score is at least 1. At that point the regulated cash flows in that year would be deemed just sufficient to support the BBB+ benchmark credit rating.
43. We have derived the weights used in the financeability formula based on the following considerations:
- a Moody's specifies in its global rating methodology for regulated energy networks that 40% of its overall rating assessment relates to quantitative rating factors in the form of four financial metrics, each with the following weight:<sup>3</sup>

<sup>3</sup> Moody's, Rating methodology – Regulated electric and gas networks, 13 April 2022, p. 3.



- i FFO to net debt ratio (12.5%);
  - ii FFO interest coverage ratio (10%);
  - iii Gearing ratio (12.5%); and
  - iv Retained Cash Flow (RCF) to net debt ratio (5%).
- b It is not apparent from recent Moody's rating decisions that Moody's attaches any material weight to the RCF to net debt ratio when conducting rating assessments of regulated energy networks in Australia.
- c Hence, if the 5% weight attributed in the global rating methodology to the RCF to net debt ratio were redistributed proportionally to the remaining three ratios, and the resulting weights were rescaled to sum to 100%, then the following weights specified in our proposed financeability formula would obtain:
- i FFO to net debt ratio (35.71%);
  - ii FFO interest coverage ratio (28.57%); and
  - iii Gearing ratio (35.71%).

#### Consideration of qualitative factors

44. We understand that, in its communications with Transgrid, the AER has indicated that any proposed financeability test should have regard not just to the quantitative metrics that are employed by credit ratings agencies, but also to relevant qualitative considerations.
45. In our view, there are three types of qualitative considerations that are relevant to our financeability test:
- a There are some qualitative factors on which Australian networks score highly. We consider this to be relevant to the benchmark efficient firm, which we take to be an *Australian* network. Thus, to the extent that Australian networks support relatively higher ratings on the strength of their qualitative characteristics, this is a relevant consideration and should be incorporated into any financeability test;
  - b There are some qualitative factors that may vary across Australian firms. For example, whereas the stability of the regulatory regime applies equally to all Australian firms, the quality of management may vary across firms, albeit being very strong on average. Such firm-level variation would not seem to be relevant to the benchmark firm. For example, the fact that Australian management teams score highly on average is a relevant consideration for the (Australian) benchmark firm. But the variation between Australian firms has no relevance to the benchmark firm and therefore no relevance to our financeability test; and
  - c There are some qualitative factors that are *defined* for the benchmark firm. For example, the benchmark firm's financing policy is defined by the AER. Although actual firms may adopt different financing policies in practice, such differences have no relevance to the benchmark firm and therefore no relevance to our financeability test.
46. In its published *Ratings Methodology*, Moody's identifies the quantitative metrics discussed above and it also identifies a number of qualitative factors such as:<sup>4</sup>

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<sup>4</sup> Moody's, Rating methodology – Regulated electric and gas networks, 13 April 2022.



- a The stability and predictability of the regulatory regime;
  - b The extent to which regulatory allowances cover the cash costs incurred by the network;
  - c The scale and complexity of the network's capital program;
  - d The firm's financial policy; and
  - e The quality of the firm's management.
47. For a given set of financial metrics, a network that scores more highly on the qualitative factors would be expected to receive a higher rating. That is, a firm with financial metrics that are consistent with a particular rating may receive a rating some notches higher on the strength of its qualitative characteristics.
48. Actual ratings reports indicate that Moody's considers Australian electricity networks to score highly on the set of qualitative factors. Specifically, in reports for Australian networks, Moody's has indicated that quantitative metrics that would otherwise support a lower rating, would be sufficient to support an investment grade rating in Australia.
49. That is, the quantitative metrics required for an average Australian network to achieve a BBB+ rating are lower than they would otherwise be, due to relatively strong scores on the qualitative factors.
50. We have taken this qualitative consideration into account in our proposed test by adopting thresholds that are lower than those set out in Moody's published methodology. Specifically:
- a We have adopted an FFO/Net debt threshold of 9% rather than the minimum of 11% that is required for an investment grade rating in the published Moody's ratings methodology; and
  - b We have adopted a FFO interest coverage ratio of 2.4 rather than the minimum of 2.8 that is required for an investment grade rating in the published Moody's ratings methodology.
51. The adoption of these lower thresholds (which appear in the Ba sub-investment grade range in the Moody's ratings methodology) reflect the fact that a strong qualitative assessment for the average Australian network can result in the rating rising several notches. Consequently, our proposed test would be easier to pass as a consequence of adopting these lower thresholds than it would be if the thresholds specified in Moody's standard global rating methodology were adopted.
52. We think that those qualitative factors that are defined for the benchmark firm by the AER are not relevant to the regulatory financeability test—because every benchmark efficient firm would (by virtue of the regulatory assumptions made by the AER) perform equally well in relation to those factors.
53. This only leaves those qualitative factors that vary between Australian regulated firms. It is not clear to us how these factors could be taken into account in the financeability analysis while satisfying the foundational principles described in paragraph 25. In our view, these factors could only be taken into account by exercising some degree of regulatory judgement. However, this would mean that the outcomes of the test would no longer be objective, predictable, replicable, transparent or knowable to investors at the time a commitment was made to the project.
54. We would welcome any suggestions from the AER on how any such factors could be taken into account in a way that preserves the principles described in paragraph 25. However, our current view is that it is not possible to simultaneously satisfy those principles and incorporate into the financeability test consideration of qualitative factors that vary between Australian regulated networks.



### 3.4 The proposed regulatory remedy

55. In the event that the above test fails in any regulatory year, our proposed remedy is that the regulator would increase the allowed revenue in that year by increasing the depreciation allowance by the minimum amount necessary to satisfy the above test.
56. By accelerating cash flows via the depreciation allowance, the remedy is automatically consistent with the NPV=0 principle.
57. This remedy also involves no change to the allowed return on equity or debt.

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