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Dear Mr Roberts

Australian Energy Regulator — Guidelines to make the Integrated System Plan actionable - Issues Paper — November 2019

EnergyAustralia is one of Australia's largest energy companies with around 2.6 million electricity and gas accounts across eastern Australia. We also own, operate and contract an energy generation portfolio across Australia, including coal, gas, battery storage, demand response, wind and solar assets, with control of over 4,500MW of generation capacity.

We appreciate the opportunity to comment on the Australian Energy Regulator's (AER) issues paper on guidelines that support the actionable Integrated System Plan (ISP).

Determining the optimal development path

The draft rules require the AER in its Cost Benefit Analysis (CBA) Guidelines to describe the framework used to select optimal development paths in ISPs. The rules only require the ISP optimal development to generate positive net economic benefit. Rule 5.15A.1 (unaffected by the current proposed amendments) require RIT-T decisions to be based on maximising net benefits.

Draft rule 5.22.5(e)(2) requires the AER to provide AEMO the flexibility selecting the optimal development path. We support this for the following reasons:

- The choice between least regrets or benefits maximisation approaches, or other decision rules, may depend on the degree of confidence in making subsidiary decisions such as defining scenarios and assigning probabilities to each. Views on these matters may change over time and should not be codified.

- There may be advantages in having different decision rules behind the ISP's optimal development path and the maximisation of net benefits in RIT-Ts e.g. as a type of cross-check.

- Our view is that the ISP is intended to guide rather than prescribe investment. Requiring it to be based on benefits maximisation may overstate the significance of the optimal development path at any point in time.

Where AEMO pursues a least regrets or other approach that does not maximise net benefits, further obligations should be placed on AEMO to describe the extent of any 'inefficiency' in its optimal development path, with related guidelines or thresholds dealing with tolerance for this.

Inconsistencies between approaches in the ISP and RIT-T may give rise to problems during the 'feedback' loop. This feedback loop requires AEMO to consider the outcomes of the RIT-T rather than the approach taken by the transmission network service provider (TNSP). There may be some flexibility for AEMO to reconcile different methodological approaches and outcomes where the TNSP's alternative preferred option still addresses the identified need and forms part of the ISP's optimal development path (see draft rule 5.16A.5(2)).

Role of the optimal development path in RIT-T assessments

The AER's issues paper proposes to make changes to the RIT-T application guidelines regarding the treatment of actionable ISP projects and generation when TNSPs model base cases and credible options. We appreciate the aim of maintaining the integrity of the optimal development path and the desirability of coordinating investment.

As flagged by the AER, we consider that including other actionable ISP projects in RIT-T base cases could overstate the prudence and efficiency of actionable projects that may be marginal or unlikely to proceed if subjected to detailed analysis. This may be difficult to determine from ISP assessments as RIT-Ts can be undertaken using updated or different input parameters and under different (weighted) scenarios than in the ISP.

Our earlier submission to the ESB suggested that RIT-Ts could instead model a scenario (not the base case) including transmission investments in the ISP's optimal development path, which may be given more weight than others when determining net benefits. A further option exists to conduct joint RIT-T assessments where the benefits of two or more projects are highly correlated, as might be identified in the ISP.

On a related matter, we consider that RIT-Ts should model more than the ISP's central planning scenario. The AER's guidelines should provide some principles around balancing the computation burden of doing so against the materiality and uncertainty of the particular investments being examined. That is, larger and more marginal projects should be subject to more scenario modelling, whereas those with expected net benefits that are large and robust to different scenarios (including as suggested in ISP scenarios) could be subjected to less scenario modelling in RIT-Ts.

Prescribing the matters to be considered by AEMO and TNSPs

The Actionable ISP framework will place heavy reliance on consultation to improve planning and resolve stakeholder issues. It is therefore important to carefully prescribe the minimum matters that AEMO and TNSPs must consider, and the materials they must publish during consultation.

Draft rule 5.22.8 contains a non-exhaustive set of requirements on AEMO in preparing the ISP including classes of costs and benefits. Corresponding requirements on RIT-Ts are listed in draft rules 5.15A2 and 5.15A.3. We recommend the AER give further consideration to prescribing the following in its guidelines:

- **recognition of the economic drivers for investment in, operation and closure of generation** (and potentially significant load, if affected by broader economic assumptions). In the same way that optimisation modelling of transmission and generation investment is 'sense tested' against physical constraints, there should be testing of modelled outcomes against realistic financial outcomes for plant operators and investors, including in light of risk that may be assumed away or inadequately treated in the modelling. This includes recognition of existing generation capacity that currently cannot get to market, which might be regarded as zero cost from a resource modelling perspective, but in reality would be a non-zero cost to consumers as owners seek to extract commercial returns

- **capital efficiency of investments** should be examined alongside net present value as a factor that may influence planning decisions

- **consideration of end use price impacts** – we note previously that price impacts were estimated as part of the "customer benefits test" with some issues, but may be worthy of renewed consideration. Having earlier foresight of distributional consequences of particular transmission investments may assist policy-makers in resolving questions of who benefits and who should pay, which may present a real barrier to timely and efficient investment.

- **consideration of contract markets** - increasing reliance on transmission interconnection and less on dispatchable generation will result in a scarcity of firm contracts, and ultimately higher costs incurred by retailers (and passed onto consumers)

- **ancillary service markets** – consideration of ancillary services costs are already prescribed in the rules and listed in the AER's application guidelines. While the turnover in these markets may be small in terms of total system costs and benefits, their importance will grow with more variable renewable investment and will also likely to be material for particular plant types (e.g. batteries). For these reasons they may impact development paths and warrant detailed modelling

- a requirement for AEMO and TNSPs to **consult with generation owners** regarding expected lives and operational assumptions, including fuel supply implications

- guidance on the **details required when publishing results and assumptions**. Draft rule 5.22.13(a)(3) sets certain requirements around the ISP database, including regard to the AER's forecasting best practice guideline. The AER may wish to provide further prescription around general principles of transparency in approach, for example, identifying standards or objectives such as enabling stakeholders to test the realism of results, or in replicating results. Examples of the specific information we consider would be useful are:

    - generation plant dispatch information, including time and location of output, and physical dispatch constraints such as minimum on-off times
    - modelling of hydro generation and pumped storage, including as it may relate to assumptions of perfect foresight
    - modelling of network outages (including maintenance and any impacts around seasonal weather and climate trends)
    - consideration of credible contingency events
    - price outcomes, including trends in spot market price outcomes and differences between scenarios that are with and without transmission investment
- **annual forecast performance reviews** – the AER's guidelines should require AEMO to promptly inform stakeholders of the timeline associated with any ISP updates, including as they arise out of ex post reviews of forecasts, as this may materially affect project investment decisions being progressed on the basis of a previous ISP.

Specific responses to the AER's issues paper questions are in the attachment.

If you would like to discuss this submission, please contact me on 03 8628 1655 or Lawrence.irlam@energyaustralia.com.au.

Regards

Lawrence Irlam
Industry Regulation Lead

AER issues paper question	EnergyAustralia response
1. Do stakeholders agree with our proposed objective for the ISP guidelines?	The term "optimise" in relation to the net economic benefit of the ISP's optimal development path is potentially vague, and could be separately explained in terms of efficiency in seeking to maximise net economic benefit, subject to prudent treatment of uncertainty and concepts of no or least regret
2. Do stakeholders agree with our proposed approach to flexibility and prescription for AEMO in the CBA guideline? Will this provide sufficient certainty and transparency to stakeholders?	The AER's approach of characterising CBA elements into AEMO's requirements, considerations and discretions is useful.
3. What are stakeholders' views on our proposed approach to AEMO's development of inputs and assumptions? Are there additional principles we should consider?	We agree that AEMO should have discretion in developing inputs according to the principles listed. We consider that inputs should be contemporary/ up to date. The principle of Transparency should be supported by requiring AEMO to make input data easily accessible to stakeholders as well as potentially other standards such as replicability. We support the AER giving guidance for input parameters over which it has jurisdiction.
4. What are stakeholders' views on our proposed approach to AEMO's development of reasonable scenarios? Are there additional principles we should consider?	We agree that AEMO should have discretion in developing scenarios. In addition to the characteristics or principles listed in the AER's issues paper, the guidelines should identify an objective or reasons for developing scenarios that would guide AEMO. The AER may also wish to provide some distinction between scenarios (which relate to a set of internally consistent assumptions and "state of the world") as opposed to sensitivities, which involve varying one or more inputs within a scenario. The AER could give guidance on the need for more or less scenarios and sensitivities in reflection of the computational burden and uncertainty/ materiality involved for particular cost benefit assessments. There may be benefit in requiring AEMO to express the likelihood of each scenario on a quantitative basis (at least in term of a range). In the absence of this, stakeholders

	may consider each scenario to carry equal weight, or give too much implicit weight to the central/ planning scenario.
5. What are stakeholders' views on our proposed CBA steps for the ISP? Are the amended steps from the RIT–T application guideline applicable to the ISP analysis? Are there particular areas where a worked example would be helpful in providing this guidance?	We consider the proposed CBA steps are appropriate. There may be benefit in prescribing qualitative considerations.
6. What are stakeholders' views on our proposed approach to AEMO's selection of development paths for assessment? Are there additional principles we should consider?	As noted above we support AEMO ensuring that modelling results are tested for commercially feasibility and might otherwise be based on optimisation of total resource costs and assumptions such as perfect foresight.
7. What are stakeholders' views of characterising the ISP counterfactual development path? Should replacement and small augmentation expenditure be included or excluded?	We support excluding non-committed projects from the counterfactual development path.
8. What are stakeholders' views on quantifying costs and market benefits? What market benefits do stakeholders consider need to be estimated using probabilities?	The body of our submission lists a range of costs, benefits and related considerations that should be explored by AEMO and TNSPs. We support the quantification of costs and benefits on a probabilistic basis where methods and data for doing so are robust and are part of market practice.
9. What are stakeholders' views on whether and how AEMO should conduct sensitivity analysis in its ISP process?	See response to question 4.

10. What are stakeholders' views on our proposal to provide AEMO with the flexibility to choose its decision making approach(es) to determine the optimal development path, subject to consultation and justification? Does this satisfy the draft rules requirements and sufficiently mitigate the risks of over-investment, under-investment, premature or overdue investment?	As per the body of our submission we consider giving AEMO this discretion is appropriate. As per our response to question 4, there may be benefits in requiring AEMO to state the quantitative likelihood of scenarios.
11. What are stakeholders' views on our proposed approach to describing the identified need to be used by TNSPs in applying the RIT–T for an actionable ISP project?	We support expression of the identified need as per the AER's existing RIT-T application guidelines.
12. What are stakeholders' views on how AEMO should take option value into account in the ISP, and TNSPs in RIT–Ts for actionable ISP projects?	We support the AER's expression and application of option value assessment as per its existing RIT-T application guidelines. Where AEMO is constrained in conducting such analysis, this could give rise to a potential inconsistency between RIT-T outcomes and the ISP optimal development path requiring further consideration as part of the 'feedback loop'.
13. What are stakeholders' views on our proposed guidance on non-network options in the CBA guideline?	We note some stakeholder concerns that the ISP process appears to limit the opportunity to properly consider non-network solutions. Given the ongoing nature of ISP consultations it may be beneficial to allow AEMO and TNSPs to receive non-network proposals at any time. The CBA guideline could set out minimum information requirement for proposals to be accepted.
14. What are stakeholders' views on our proposed approach to RIT–T application guidance for actionable ISP projects and non-ISP projects?	As noted in our submission, the ISP is not intended to displace rigorous and detailed cost benefit assessments of transmission investment needs that occur in RIT-Ts. We support the AER's continuation of the RIT-T application guideline subject to the changes in process relating to removal of PSCRs and the presumption of reliance on

	ISP input parameters for ISP projects. The processes for non-ISP projects should remain unchanged.
15. What are stakeholders' views on what network development should be included in the base case of the RIT–T for actionable ISP and non-ISP projects? What are stakeholders' views on what generation (and other) development should be included in the base case of the RIT–T for actionable ISP and non-ISP projects?	As stated in the body of our submission we do not support actionable ISP projects being reflected in RIT-T base case modelling.
16. What are stakeholders' views on the scenarios to be considered in RIT–Ts for actionable ISP projects? Would the 'feedback loop' help to overcome any misalignment between the ISP and RIT–T?	As per our response to question 4, the AER could give guidance on where more or less modelled scenarios are justified, balancing the desire to minimise effort while also testing the robustness of the investment decision.
17. What areas of the ISP do stakeholders require further transparency and/or consultation to engage effectively in the process?	As outlined in the body of our submission there are a range of matters that AEMO (and TNSPs) should explicitly consider and data it should publish in the name of transparency and to facilitate effective stakeholder engagement.
18. What are stakeholders' views on our proposed guidance on dispute resolution in the RIT–T and ISP processes? What specific guidance on dispute resolution would stakeholders value?	We have concerns that the draft rules are too restrictive in the grounds for raising dispute over the ISP and refer the AER to our separate submission to the ESB.
19. Do stakeholders agree with our proposed approach to compliance and enforcement of the rules and binding guidelines?	We support the AER's guidelines dealing with expectations of AEMO's compliance. The AER should consider whether, and if so, how any compliance or enforcement actions would overlap with dispute resolution.