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Submitted by email to ISPguidelines@aer.gov.au

AER Integrated System Plan (ISP) Draft Guidelines

Snowy Hydro Limited (Snowy Hydro) welcomes the opportunity to comment on matters raised in the AER's Consultation on the Integrated System Plan (ISP) Draft Guidelines (Guidelines).

We recognise the considerable work undertaken by the AER in seeking to develop a comprehensive and transparent set of Guidelines. Unfortunately, as they stand, the Guidelines do not adequately support the implementation of the ISP, and in particular Actionable ISP Projects, because they seek to embed the existing cost-benefit test in the Regulatory Investment Test-Transmission (RIT-T). This is not consistent with the purpose of the ISP, which is designed to move beyond the current, incremental approach to transmission planning.

Background to the ISP and the Guidelines

The Guidelines are the final step in a multi-year process to implement the ISP, which began with a recommendation of the Finkel Review, which observed that:

*"Incremental planning and investment decision making based on the next marginal investment required is **unlikely to produce the best outcomes for consumers or for the system as a whole over the long-term or support a smooth transition**. Proactively planning key elements of the network now, in order to create the flexibility to respond to changing technologies and preferences has the potential to reduce the cost of the system over the long term"* [1]

In this context, the Finkel Review recommended the Australian Energy Market Operator (AEMO), supported by transmission network service providers (TNSPs) and relevant stakeholders, should develop an ISP (Recommendation 5.1), on the basis that integrated system planning was a key pillar to delivering future reliability, increased security, rewarding consumers, and lowering emissions[2].

In response to the Finkel Review, the COAG Energy Council tasked the Energy Security Board to develop a plan to make the ISP actionable, and endorsed the ESB's plan to do so in December 2018. The ESB's plan provided that TNSPs would '*remain responsible for identifying the preferred or "best" option with AEMO to confirm that this option remains consistent with the ISP*'[3].

The ESB then developed the Actionable ISP Rules to convert the ISP into action in March 2020, which:

[1] See Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future, June 2017 (**Finkel Review**), Page 123
[2] Finkel Review, Pages121-124
[3] ESB, Integrated System Plan – Action Plan, December 2018

- require AEMO to publish an ISP every two years which identifies the 'optimal development path', being the suite of power system developments that efficiently meet a defined set of power system needs and public policy needs over a 20 year planning horizon[4]; and
- provide for the AER to make Cost Benefit Assessment (CBA) Guidelines to govern how AEMO would develop the ISP and how TNSPs would carry out RIT-Ts for actionable ISP projects.

In doing so, the ESB noted that:

- the Actionable ISP Rules were '*designed to prevent misalignment between the ISP and RIT-T*'; and
- the Guidelines would '*be used to ensure that there is alignment between the ISP and RIT-T*'[5].

Accordingly, the Guidelines are the final step in the process to implement the ISP. Implementing the ISP is critical because resolving the ability for the transmission network to accommodate the energy mix of the future remains the single most important issue in the NEM. Timely and appropriate decisions made today will determine the direction, cost effectiveness, reliability and sustainability of the NEM for decades. The ISP is the most significant development in transmission planning in decades, and has a crucial role in coordinating generation and transmission investment in the NEM.

There is a critical need to progress the Actionable ISP Projects to ensure the timely and economically efficient growth and integration of renewables and large scale storage into the grid. Investment in transmission infrastructure, including inter-regional connections, will ensure acceptable system security and reliability is delivered, and will underpin least cost investment in new renewable generation and increase competition in the market. The benefits to consumers and the broader economy associated with a coordinated and integrated approach to transmission planning were at the heart of the recommendation to develop and implement the ISP. In particular, an integrated, transparent transmission framework will allow the grid to deliver least-cost, secure and reliable energy to consumers. On the other hand, the application of the legacy cost-benefit test to ISP projects undermines the very reason for which the ISP was created; that is, to avoid an incremental approach to transmission planning inherent under the existing framework.

In this context, it is the role of the Guidelines to support the implementation of Actionable ISP Projects, by ensuring alignment between the ISP and the RIT-T to be applied to Actionable ISP Projects (as opposed to the RIT-T to be applied to other transmission upgrades).

AER's Approach to the Guidelines

Instead, the approach taken in the proposed Guidelines has the potential to create misalignment between the ISP and the RIT-T for Actionable ISP Projects, and is inconsistent with the purpose of the ISP, and will perpetuate the current model of incremental planning which will not serve the long term strategic interests of the NEM. This is because the AER's approach is to apply the same cost-benefit test to the RIT-T for Actionable ISP Projects as applied under the existing RIT-T for general transmission upgrades.

This is explicit in the Guidelines, which focus on the new process – how AEMO will prepare the ISP (in lieu of a Project Specification Consultation Report), and how TNSPs will be required to use ISP inputs when completing the later stages of the RIT-T - but do not amend the underlying cost-benefit test to be applied by TNSPs, or allow TNSPs to apply the same 'least regret' approach as AEMO in preparing the ISP.

[4] See NER 5.22.1 and 5.22.2. See also: ESB, Final Recommendation for Actionable ISP Rules, Decision Paper, March 2020

[5] ESB, Final Recommendation for Actionable ISP Rules, Decision Paper, March 2020, pages 14, 19.

This is reflected in Chapter 5 of the AER's explanatory statement, which provides: *Given the mechanics of the RIT–T largely align for both types of projects* [actionable and non-actionable]*, we have used the existing RIT–T application guidelines as a base for our guidance on actionable ISP RIT-T applications.*' This approach is contrary to the Actionable ISP Rules. Relevantly, under the Rules, in developing the Guidelines, the AER must:

- recognise the risks to consumers arising from uncertainty, including over investment, under-investment, premature or overdue investment;
- provide flexibility to AEMO in its approach to scenario development, modelling and selection of the optimal development path;
- require the optimal development path to have a positive net benefit in the most likely scenario; and
- have regard to the need for alignment between the Integrated System Plan and the RIT-T as it applies to actionable ISP projects[6].

Amendments required to align the Guidelines to the ISP

In relation to the cost-benefit test under the Guidelines:

1. The traditional RIT-T process is too narrow in assessing potential benefits for Actionable ISP projects. For these Projects (which again have been identified by AEMO as being part of the optimal development path for the NEM) a "whole-of-system" benefits approach needs to be adopted in order to capture the full benefits of the type of long-term, strategic projects identified by AEMO as Actionable ISP Projects. The whole of system benefits that should be part of the assessment for Actionable ISP Projects should include long term risk management, energy security which includes avoided intervention and long term competition benefits. This could be achieved by expanding the definitions of 'competition benefits' and 'option value' in the AER Guidelines which need to consider:
    - Enabling future generation connections and the risk management and competition benefits for the system;
    - Minimising the need for market intervention. Consumers would avoid the costs from intervention mechanisms such as the Reliability and Emergency Reserve Trader (RERT) and the prospect of future events of insufficient capacity investment justifying further intervention;
    - Minimising major power system separation events which have driven record system costs. One of the main drivers of recent record NEM system costs was most notably the 18-day separation of the Victorian and South Australian power systems after a storm event knocked out key transmission lines on 31 January; and;
    - The risk management benefit of the early commissioning of transmission.

2. While the Guidelines provide AEMO with flexibility in determining the optimal development path in developing the ISP and identifying Actionable ISP Projects, they do not allow the Transmission network service providers (TNSPs) to adopt the same 'risk averse' or 'least regret' approach when assessing those Projects through the RIT-T. Instead, the Guidelines require TNSPs to adopt a 'risk-neutral' approach in applying the cost-benefit analysis which would be more restrictive for priority projects. This creates a clear risk of misalignment between the assessment approach in the ISP and the RIT-T for Actionable ISP Projects, and makes it more difficult for Actionable ISP Projects (which have been identified by AEMO as

[6] NER 5.22.5(e)

being required to manage risks in the NEM) to pass the RIT-T. The Guidelines should be amended to allow TNSPs to adopt a 'least regret' assessment approach.

In addition to the above comments on the cost-benefit test, we make the following comments on the Guidelines:

3. An important long-term solution for Actionable ISP projects is through staged development which would allow the NEM in certain cases to access early capacity benefits and achieve early works. The Guidelines suggest that staging would involve separating Actionable ISP Projects into multiple ISP projects, where each stage is considered as a stand-alone project, and required to be separately assessed. This would impact the timing of projects, and there is a real risk that the benefits and costs of the project could be diluted. Instead the Guidelines should afford TNSP's the flexibility for their RIT-T assessments should they decide to stage the proposals.
4. Finally, the transitional arrangements in the Guidelines should allow Actionable ISP Projects that have completed their PADR to apply the Actionable ISP Rules post-PACR stage.

We expand on each of these points below.

1. Benefits to be assessed through the Cost Benefit Analysis (CBA)

To form a strategic approach to transmission planning it is vital that the AER include the 'whole of system' benefits which correctly defines the benefits of strategic transmission projects. Over the coming decades transmission systems will need to be substantially transformed as we move to a renewable energy future.

Snowy Hydro believes the AER Draft ISP guidelines provide AEMO with flexibility in specifying its inputs, assumptions and scenarios which is appropriate due to the AER's new transparency review role in the NER.[7] It is however important to align the approach to risk in the RIT−T with that in the ISP, where the ISP has recommended a transmission project.

The AER Draft ISP Guidelines should not only assess the direct benefits being captured but that they include the "whole-of-system" benefits which correctly define competition and option value benefits. The definitions of competition benefits and option value in guidelines require further clarification from the AER. Competition benefits of enabling future generation connections and the risk management benefits for the system need to be included in the Guidelines. For example, the unlocking of the Western Victorian Renewable Energy Zone (REZ) is not currently captured by the narrowly defined competition benefits.

Snowy Hydro understands AEMO will incorporate option value when choosing the optimal development path however it is vital that the guidelines take into consideration risk management such as the early closure of coal fired generators in the NEM as part of the consideration.

The Draft 2020 AEMO Integrated System Plan (ISP) noted that *"costs would mount significantly if Yallourn retired earlier than currently anticipated and VNI West was not in place[8]"* while AEMO's 2019 ISP Insights paper noted that "*If there is more than a 20% chance of Yallourn Power Station closing earlier than currently scheduled"*[9] then there is risk management benefit to the early commissioning of VNI West. Further, in terms of risk management in Victoria, Yallourn Power Station is not the only power station that is likely to close earlier than currently anticipated. These risk management benefits are not currently captured in the definition of option value.

[7] AER - Fact sheet - Providing Guidance about Integrated System Plan Processes
[8] AEMO 2020 ISP Draft
[9] AEMO, 2019, An Insights paper on Building power System resilience with pumped hydro energy storage

2. Approach in the CBA Guidelines to Risk Management

Snowy Hydro is concerned with this aspect of the draft CBA Guidelines, which creates a clear risk of misalignment between the assessment approach in the ISP and the RIT-T for actionable ISP projects. This is especially in circumstances where AEMO has already adopted a risk averse (or 'least regret') approach to assessment in the draft 2020 ISP. For example, the draft 2020 ISP recommends accelerating VNI West to mitigate the risk of early coal-plant closures, based on a 'least regret approach' to CBA, however the draft CBA Guidelines require TNSPs to apply a 'risk neutral' approach, weighing the market benefits of each relevant scenario using the likelihood-based weightings set out in the ISP (to the extent that AEMO identifies multiple relevant scenarios) which may produce a different result.

The AER's approach:

- is contrary to the purpose of the ISP and the Actionable ISP Rules;
- does not provide for alignment between the ISP and the RIT-T for actionable ISP projects (which must be considered when preparing the CBA Guidelines per NER 5.22.5(e)); and
- is contrary to the spirit of other aspects of the Actionable ISP Rules – for example:
    - the 'feedback loop' by which RIT-T proponents must seek confirmation from AEMO that the preferred option under the RIT-T aligns with the optimal development path stated in the ISP;[10] and
    - the provisions which require the RIT-T to adopt the relevant identified need identified in the ISP, the ISP parameters and the ISP market modelling.[11]

In determining the Guidelines the AER notes a requirement for RIT-T proponents to adopt a risk-neutral approach (ie, a probability weighted cost benefit analysis) which *'should allow the economic assessment framework underpinning the ISP and RIT–T to align'.* Further to this the AER highlight that the current approach would be more effective in providing this consistency than if the AER provided TNSPs with general flexibility as the approach relies on AEMO's judgement directly, rather than requiring TNSPs to interpret how AEMO applied its judgement.[12] The Guidelines should be updated to allow TNSPs to adopt the same 'least regrets' approach in assessing the Actionable ISP Projects through the RIT-T.

The Guidelines however do provide AEMO with flexibility in determining the optimal development path, provided AEMO explains and justifies its approach to risk. In particular, the draft CBA Guidelines note that:

- Scenario analysis is an important part of the CBA process, as it presents the net economic benefit of each development path in each scenario. Scenario analysis is one way to assess the risk or uncertainty of a given development path.
- Once scenario analysis has been undertaken, AEMO must rank its development paths using a risk neutral decision making approach, based on expected value – ie, weighting different payoffs based on their likelihood of occurrence.

Snowy Hydro welcomes this aspect of the draft CBA Guidelines, as it provides flexibility to AEMO in determining the optimal development path. It is also consistent with the 'least regret' approach adopted by AEMO in the draft 2020 ISP. However, the same flexibility is not afforded to TNSPs in applying the RIT-T to Actionable ISP Project.

[10] AEMO confirmation is required by NER 5.16A.5(b), replacing the 'preferred options assessment' process in current NER 5.16.6.
[11] See: NER 5.15A.3.
[12] See: AER, Explanatory Statement to Draft CBA Guidelines, May 2020, Section 5.3, page 45.

There is nothing in the Actionable ISP Rules which prevents the ISP and the RIT-T for actionable projects from being aligned, by expanding the categories of benefits that may be considered and allowing TNSPs to adopt a 'least regret' approach.

This is clear from the ESB's consultation process on the Actionable ISP Rules, where this particular risk of misalignment was considered directly. In that consultation, TNSPs requested that the ISP Rules provide flexibility to TNSPs in preparing their RIT-Ts, rather than being required to adopt a risk neutral approach (ie, a probability weighted cost benefit analysis). In making its final recommendation, the ESB acknowledged this risk of misalignment between the ISP and the RIT-T and stated that it could be dealt with in the CBA Guidelines and through a minor change to the Actionable ISP Rules (being to amend the definition of 'ISP parameter' for an actionable ISP project to include 'any weightings as relevant to that project').[13][1]

As such, it is open to the AER in preparing the final CBA Guidelines to allow RIT-T proponents to adopt the same assessment approach as adopted by AEMO in the ISP, including a risk averse approach if that is the case. The final CBA Guidelines should do so, to avoid the clearly identifiable risk of misalignment between the ISP and RIT-T for actionable ISP projects. Doing so would give effect to the purpose of the ISP and the Actionable ISP Rules, allowing TNSPs to act in accordance with the optimal development path identified by AEMO which efficiently meets the power system's needs over a 20 year planning horizon.

3. Staged development

The AER recommendation for AEMO to work with TNSPs to include as many staged project options as possible is a sensible approach however care must be taken in this process not delaying the timing of transmission projects through being listed as standalone ISP projects. Snowy Hydro believes the most robust long-term solution allows for staged development which would enable the NEM to access early capacity benefits and achieve early works.

Early works alone are vital in achieving the appropriate timing for transmission projects. This can include critical path investments which are needed to commence construction, such as easement acquisition or acquiring a slot in a manufacturer's queue for long lead time equipment.

Snowy 2.0 is being built to provide longer-term energy storage and replace retired assets. This means facilitating renewable energy being online prior to the asset retiring to cover the energy shortfall and capacity being online prior to the expected shutdowns to cover the capacity shortfall. Any delay in the Actionable ISP projects risks delay to the crucial sections of these upgrades

Separating stages into multiple ISP projects where each stage is considered as a stand-alone project could risk delaying projects. With the TNSP's RIT-T assessment to build on the ISP analysis, the assessment at the RIT-T is likely to be substantial. If the ISP is required to separate the assessment to staged proposals as stand alone projects there is a real risk that the benefits and costs of the project could be diluted. Failure to facilitate the timely completion of strategic transmission projects could then amount to a gamble on the reliability of the NEM. With the ISP being released every 2 years, early works could be delayed for strategic projects which may have already been actioned through the ISP.

The same clear flexibility afforded to AEMO in developing the ISP should also apply to TNSPs for their RIT-T assessments should they decide to stage the proposals.

[13] ESB, Final Recommendation for Actionable ISP Rules, Decision Paper, March 2020, Section 3.6.1, page 27.

4. Transitional arrangements Location in AER Guidelines

With a number of RIT−T processes for actionable ISP projects underway when the AER publishes the final guidelines to make the ISP actionable it is sensible to not re-start the RIT−T applications that are substantively underway and may require re-starting the draft report.

The transitional arrangements in the guidelines note that it would not be appropriate for the final guidelines, once published, to apply to existing RIT-T processes where a Project Assessment Draft Report (PADR) has been published. For projects such as Humelink, for which a PADR was published in January 2020, and potentially VNI West, depending on when a PADR is published for that project, the projects would be unable to access the transitional arrangements. Snowy Hydro is therefore seeking further clarification particularly in relation to the post-Project Assessment Conclusions Report (PACR) mechanisms in the new rules. Snowy Hydro's position is that post-PACR, the Actionable ISP Rules should apply to an Actionable ISP Project, whether or not the PADR was published prior to the implementation of the Actionable ISP Rules.

For projects such as VNI West for which only a consultation report has been published, we support the transitional arrangements proposal by the ESB that if a RIT-T has already commenced for a project identified in the 2020 ISP, then the TNSP will be able to choose whether to apply the new streamlined RIT-T process or the current process.

It is necessary to establish transitional arrangements to implement the new framework. The ESB's proposal noted that the transitional arrangements should:

- include deeming provisions that deem the 2020 ISP process to have met the new requirements;
- apply the new RIT-T framework to projects identified in the 2020 ISP; and
- apply the streamlined post RIT-T regulatory arrangements (e.g. removal of preferred options assessment) to all RIT-Ts following the making of the final ISP Rules.

The transitional arrangements should assist the timing transmission proposals which is vital as it will provide insurance against an early closure of coal fired generators which is hlighited in AEMO's identified need.

About the Snowy Hydro Group

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market (NEM) and a leading provider of risk management financial hedge contracts. We are an integrated energy company with more than 5,500 megawatts (MW) of generating capacity. We are one of Australia's largest renewable generators, the third largest generator by capacity and the fourth largest retailer in the NEM through our award-winning retail energy companies - Red Energy and Lumo Energy. Collectively, they retail gas and electricity in South Australia, Victoria, New South Wales, Queensland and the ACT to over 1 million customers.

Snowy Hydro appreciates the opportunity to respond to the AER's Consultation on the Integrated System Plan (ISP) Draft Guidelines and any questions about this submission should be addressed to panos.priftakis@snowyhydro.com.au.

Yours sincerely,

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