

Final guidelines for the Integrated System Plan

What is the Integrated System Plan?

The Integrated System Plan (ISP) is a roadmap of investments and projects required to support Australia's energy transition to incorporate more renewable energy and provide greater reliability in the National Electricity Market (NEM).

The ISP outlines what type of investment, including transmission and generation, is required to improve how the market operates to support the long-term interests of consumers.

The ISP is developed by the Australian Energy Market Operator (AEMO) every two years and requires additional analysis and evaluation following its development.

Evaluation of the proposed investments includes a cost benefit analysis called the regulatory investment test for transmission projects (RIT–T). This is applied by transmission businesses to select a preferred project option to take forward.

An 'actionable' ISP

The Energy Security Board has included the ISP in the National Electricity Rules (NER).

To realise the most efficient investments and projects in the ISP, the AER was required to develop guidelines on how AEMO should consult on, analyse and evaluate projects proposed for inclusion in the ISP.

[Actionable ISP Rules](#)

AER's role in the ISP framework

The AER's role is to prepare guidelines for AEMO to follow when developing the ISP. This includes guidelines for analysis and consultation.

The AER also provides guidance for transmission businesses in applying the RIT–T.

The AER is responsible for compliance and enforcement of the National Electricity Rules (NER) and has a compliance and enforcement

role over legally binding elements of the guidelines.

The AER seeks to proactively monitor compliance and will set up an issues register relating to AEMO's and transmission businesses' compliance with the guidelines.

The AER will also review the transparency of key decisions around the ISP and make determinations to settle any disputes on the ISP or RIT–T applications.

What are our guidelines?

The AER has published new guidelines that will apply to the 2022 ISP. These new guidelines prescribe the cost benefit analysis framework, consultation processes and forecasting practices that AEMO must apply when developing the 2022 and subsequent ISPs.

These guidelines also prescribe how transmission businesses should apply the RIT–T to projects identified in the ISP.

For transmission investment projects that are identified outside of the ISP process, we have updated our existing RIT–T guidelines to ensure there are no inconsistencies with the ISP framework.

What are the objectives of our guidelines?

The AER guidelines aim to ensure AEMO has the flexibility to exercise its professional judgement in developing the ISP. They also aim to ensure that AEMO decisions are transparent, informed by stakeholder consultation and subject to consistent and robust economic analysis. This includes requiring AEMO to explain its decisions and how its decisions align with consumer preferences.

The guidelines require businesses to use the same inputs and assumptions as AEMO when applying the RIT–T to projects identified in the ISP. The guidelines also allow AEMO to direct RIT–T applications to explore specific risks that the ISP has taken into account. These aim to ensure the RIT–T process is streamlined and coordinated with the ISP.

How will the ISP and RIT–T work together?

The AER guidelines require AEMO to perform a defined cost benefit analysis when identifying which projects (or “optimal development plan”) are required to deliver the needs of the NEM through the ISP.

The prescribed AER cost benefit analysis requires AEMO to:

- Identify several optimal development plans, and estimate their costs and benefits.
- Rank the development plans in a transparent manner under various scenarios.
- Consider how various development plans mitigate key risks and align with consumer preferences.

The guidelines require AEMO to use evidence-based decision-making approaches when deciding which plan is the optimal development plan. These decision-making approaches rank development plans differently based on their approach to risk. AEMO must be transparent about the final decision-making approach(es) it chooses and the optimal development plan it leads to. AEMO must also benchmark its choice against a maximum net benefit approach and explain how it aligns with consumer preferences.

For key ‘actionable’ transmission projects in the optimal development plan, the ISP will need to identify the need for the investment and a candidate project option.

Transmission businesses must then apply a RIT–T to these ‘actionable’ projects. The RIT–T will explore different options for meeting those needs to ensure a thorough cost benefit analysis, and then choose a preferred option to take forward.

Other key parts of the guidelines

The guidelines provide expectations on how AEMO will:

- Incorporate ‘option value’ when choosing the optimal development path. Option value includes the retention of flexibility when the timing of associated projects change or certain actions are irreversible, to create more value when combined with other projects.
- Consider non-network options such as options including batteries.
- Perform ‘feedback loops’ and ISP updates when assessing alignment of the RIT–T with

the ISP including additional analysis and modelling.

- Explain its decisions to stakeholders.

Transitional arrangements

- The new AER guidelines and rules in the NER do not apply to AEMO’s 2020 ISP.
- The new AER guidelines only apply to current RIT–T applications that have not yet published a project assessment draft report. This primarily affects the inputs and assumptions used in the RIT–T analysis.
- The transitional arrangements in the NER allow ISP projects that have started a RIT–T application to move to the new rules at the election of the transmission business. This primarily affects how projects move through to the AER’s contingent project assessment stage.

The table below shows how the new rules and the new Guidelines apply to the 2020 ISP and corresponding actionable ISP projects.

Regulatory Process	New ISP rules apply?	Final AER guidelines apply?
2020 ISP	No	No
Victoria–NSW interconnector minor RIT–T	Yes*	No, RIT–T finalised
Project EnergyConnect RIT–T	Yes*	No, RIT–T finalised
HumeLink RIT–T	Yes*	No, RIT–T substantially complete
MarinusLink RIT–T	Yes*	No, RIT–T substantially complete
Victoria–NSW interconnector west RIT–T	Yes*	Yes
Central west renewable energy zone RIT–T	Yes	Yes
2022 ISP (and all later ISPs)	Yes	Yes

* At the election of the transmission business.