

03 September 2026

Ms Anna Collyer
Chair
Australian Energy Market Commission
GPO Box 2603
Sydney NSW 2001
Email: submissions@aemc.gov.au

Dear Anna,

ENA submission on the AEMC's ISP review discussion paper (EPR0092)

Energy Networks Australia (ENA) welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (AEMC's) review of the Integrated System Plan (ISP), in response to the Discussion Paper.

ENA represents Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business in Australia.

In summary:

- ENA supports extending **co-optimisation to distribution and consumer energy resources** (CER) (strawperson 3), while maintaining the ISP's role as a planning instrument that takes government policy as an input rather than becoming a policy-making document.
- ENA supports a **phased reform pathway**, with priority given to establishing robust co-optimisation of distribution and CER, with actionability for distribution investments considered as a subsequent reform once the framework has matured.
- ENA supports establishing an **enabling framework** in the Rules now, including a formal role for Distribution Network Service Provers (DNSPs), with implementation phased over successive ISP cycles as capabilities, systems and robust methodologies mature across AEMO and all Network Service Providers (NSPs) consistently.
- Co-optimisation should continue to evaluate not only costs but also **differences in risk**, reliability outcomes and resilience across transmission, distribution, CER, generation and storage options, supported by more robust testing of extreme weather conditions.
- Enhanced **sensitivity analysis** is a practical interim step that can improve understanding of the impact of changes in CER uptake, network costs and policy outcomes on the Optimal Development Path (ODP) while co-optimisation frameworks continue to mature.
- ENA does **not support** extending ISP co-optimisation to **gas** as part of this Review.
- ENA supports strengthening the **national pathway** for delivering projects on the ODP, where these changes represent a proportionate improvement to the existing framework rather than a substantive change.
- Reform should strengthen, not replace, the existing economic assessment framework by **retaining both the ISP and RIT-T**, removing genuine process duplication, and enabling greater flexibility to draw on updated and more granular evidence where required.

The ISP should remain a planning instrument, with distribution and consumer energy resources brought into the plan

The ISP should remain a coordinated planning instrument that takes government policies as an input rather than the Australian Energy Market Operator (AEMO) forming its own view on which policies will be delivered or what additional policies could be put in place.

The backdrop against which AEMO is developing the ISP is, however, changing, with the increasing uptake of CER. ENA supports active consideration of the circumstances in which distribution investment and CER may complement or substitute for grid-scale investment, informed by the full costs and varying risks associated with the different investment types.

On this basis, ENA supports the direction of strawperson 3 (SP3) in the Discussion Paper, which would treat distribution investment and CER as decision variables in the ISP co-optimisation, rather than fixed inputs to the plan. Although this reform might change how the ISP performs its role – building on the 2026 ISP's increased consideration of distribution and CER outcomes – it would represent an evolution in methodology rather than a change in the ISP's fundamental role as a planning instrument. Accordingly, the CER uptake modelled through an expanded co-optimisation should continue to be anchored to existing policy settings, rather than assuming unbounded uptake.

The extension of actionability to distribution projects contemplated under strawperson 4 (SP4) is a potential, logical corollary to extending co-optimisation, but ENA considers this is better considered and assessed as a further step once the co-optimisation framework has matured, rather than settled in this Review, for the reasons set out below.

The extension of co-optimisation under SP3 is a material reform to the ISP methodology, although its practical departure from the current approach may be more incremental than it initially appears. AEMO has already begun incorporating distribution and CER considerations in the 2026 ISP. The task is therefore to further develop, refine and standardise this analysis over successive ISP cycles, a process facilitated by the existing framework.

The reform should be enabled in the National Electricity Rules now and phased in as AEMO and NSPs develop the necessary capabilities, data and methodologies

The extension of co-optimisation to distribution and CER has the potential to improve long-term outcomes for consumers, in relation to affordability and reliability of electricity supply. The enabling framework for co-optimising distribution and CER could be established in the National Electricity Rules (NER) now, with its implementation and refinement phased over successive ISP cycles.

It would not be a pragmatic solution for AEMO to undertake all of the modelling that an extended co-optimisation requires. The modelling complexity challenge could instead be managed through a shared modelling approach, with DNSPs modelling distribution-network outcomes and providing AEMO with the aggregated inputs required for its extended co-optimisation at a level of aggregation consistent with AEMO's representation of the transmission network in the ISP. ENA therefore recommends that the NER framework formally recognise a role for DNSPs in joint planning with AEMO, enabling extended co-optimisation.

It is important that there is a robust basis to support the extension of co-optimisation, which is able to be applied consistently across all distribution networks and fully recognises the inter-linkages between distribution augmentation and upstream transmission constraints. It will therefore be necessary to allow sufficient time for AEMO's methodology and guidelines to be developed, and for both DNSP and TNSP systems and capabilities to be put in place to provide the required data inputs. Delivering this reform will also require an uplift in AEMO's capabilities, and greater clarity around the respective roles and responsibilities of AEMO and network businesses. It is also important to acknowledge the

practical barriers to the integration of data in the analytical process that will need to be worked through.

A better-informed ODP can help to guide the development of a more efficient, least-regrets energy system, with the resulting savings more than justifying the additional costs of the uplift. The pace at which the reform can be introduced will be determined by AEMO's coordination with industry, and its ability to put the appropriate detailed methodologies and systems in place. ENA considers the reform should be progressed as fast as that capability allows, recognising that it will be progressively refined over ISP cycles.

It is important that, in extending co-optimisation, the ISP assessment and identification of the ODP continue to account for the differing risk profiles across the investment types the plan trades off, whether it be transmission, distribution, CER, generation or storage. This includes delivery risks and differences in the reliability outcomes that may be delivered by each investment type. Going forward, the ISP should also apply more systematic testing of extreme-weather conditions, including prolonged periods of low wind and solar output (*dunkelflaute*). This testing will become increasingly important as variable renewable generation comprises a larger share of the system.

ENA recognises that this needs to be done credibly, without a disproportionate increase in effort and without reducing the effort AEMO applies to testing the robustness of transmission outcomes and the resilience of generation and storage investment.

It is important that the necessary methodologies, systems and capabilities are given sufficient time to be developed and put in place. Enabling an extension of co-optimisation in the NER framework as an outcome of the current Review would keep pressure on all parties to progress towards this reform.

In the nearer term, while the co-optimisation framework and systems are being developed, the ISP should apply enhanced sensitivity testing of CER uptake, including the associated incremental network costs across both distribution and transmission networks. This would help stakeholders better understand the extent to which higher CER uptake could affect the identification, timing and scale of major transmission projects in the ODP.

Sensitivity testing should also extend to other potential changes in the timing or delivery of policy outcomes, including both upside and downside cases. In this way, the ISP can act as a valuable reference point for stakeholders and policy makers in considering the potential impact of policy changes, whilst remaining a planning instrument rather than becoming a policy-setting document.

Gas investment operates under a fundamentally different market-led framework outside the statutory processes that apply to electricity investment. Extending ISP co-optimisation to gas would require substantial framework changes, which could detract from the focus and rigour necessary to implement the priority reform to extend co-optimisation to distribution and CER. The extension of co-optimisation to gas should therefore remain outside the scope of the ISP Review at the current time. Greater understanding and transparency around the impact of gas market development on the ODP could instead be derived from additional sensitivity testing in the ISP, with gas development continuing to be treated as an exogenous input.

Actionability and the delivery framework should support the projects the plan selects

Where the ISP identifies distribution projects as part of the ODP, the DNSP responsible needs a clear pathway to deliver that investment and recover its costs. In this respect, extending actionability to distribution projects is likely to be a logical corollary to an expanded co-optimisation framework. However, the focus for reform should first be on establishing a robust and credible framework for co-optimising transmission, distribution and CER investments, with actionability only being considered as that framework matures and AEMO and network businesses become confident in its application.

ENA recognises that the ISP is not the only pathway through which network investment is identified and progressed. Transmission Network Service Providers (TNSPs) and DNSPs already identify net beneficial investments through existing jurisdictional planning, joint planning and regulatory processes.

Extending actionability to major distribution projects, which are likely to be at the sub-transmission level and can be identified and assessed on a basis broadly comparable to major transmission projects, requires careful consideration of the potential interactions with jurisdictional planning frameworks, where they apply. Applying actionability to programs of lower voltage works raises a more fundamental question of what 'actionability' would mean for those works in practice.

For these reasons, ENA considers that the question of actionability for distribution investments should be pursued as a subsequent reform phase, following the successful implementation of broader co-optimisation. This Review could establish a broad direction for that future work, but should not seek to resolve it now.

Importantly, distribution investments identified in the ODP can continue to be progressed by DNSPs under the existing regulatory framework, meaning actionability is not a prerequisite to delivering the benefits of co-optimisation.

In relation to improvements to the economic assessment process more generally, ENA supports retaining both the ISP and the RIT-T for actionable ISP projects and does not support removing the net-benefits assessment from the RIT-T. The economic assessment process in the ISP and RIT-T perform distinct and complementary functions. The ISP identifies efficient development pathways at a system level, while the RIT-T provides the project-level net benefits assessment that the ISP cannot.

There may, however, be opportunities to reduce genuine duplication between the two processes without diminishing project-level scrutiny. This includes removing the overlap between the material change in circumstances provisions and cycle-by-cycle ISP reassessment, in relevant circumstances. The interface between the ISP and RIT-T processes could also be improved through extending joint planning to give earlier visibility of ISP modelling and allowing key planning inputs (such as the Transmission Cost Database and Electricity Network Options Report) to be updated as new information becomes available between the Draft and Final ISP. This would improve alignment between the ISP and RIT-T processes and allow the Final ISP to draw on more contemporaneous information.

ENA also considers the framework should give RIT-T (and RIT-D) proponents greater flexibility to depart from ISP assumptions where supported by evidence. This would ensure that the economic assessment process is drawing on the most recent and credible information at the appropriate level of granularity, to support timely investment while maintaining alignment with the ISP's broader conclusions. Although this may be able to be achieved through a change to the AER Cost Benefit Analysis Guidelines, it is important that the NER framework supports this greater flexibility through feedback loop provisions that can more readily accommodate justified departures from the ISP assumptions and modelling.

Finally, greater transparency around the robustness of each project's inclusion in the ODP, and the assumptions on which inclusion depends, would provide stakeholders with a clearer understanding of how planning outcomes may change as key assumptions evolve. This would strengthen confidence in the ISP outcomes and the resilience of the ODP, reinforcing the ISP's role as a credible and co-ordinated plan for the sector that policy makers, investors, consumers and other stakeholders can rely on when making decisions.

ENA's detailed responses to the AEMC's consultation questions are set out in the attached submission. An Appendix is also provided for ease of reference, identifying where each consultation question is addressed throughout the submission.

ENA looks forward to working with the AEMC as it progresses the review of the ISP framework. If you would like to discuss this submission, please contact Russell Pendlebury, General Manager, Regulation and Policy (rpindlebury@energynetworks.com.au).

Yours sincerely,



Dominique van den Berg

Chief Executive

Attachment 1

1. The plan

Consistent with its submissions to the Australian Energy Market Commission's (AEMC's) Centre for Independent Studies (CIS) Rule change process, Energy Networks Australia (ENA) considers that the role of the Integrated System Plan (ISP) should remain as a co-ordinated planning instrument, which acts as a key reference point for stakeholders across the sector (including policy makers) but takes government policies as external inputs in developing the plan.

The ISP should not become a policy document, and should continue to take government policies as inputs, rather than treating them as variables. The Australian Energy Market Operator (AEMO) should not be required to form its own view on whether certain policy objectives will be achieved or not. This is what allows the ISP to remain a credible reference point that investors, governments and network businesses can rely on.

However, taking policy as an input does not mean assuming, unequivocally, that every policy is delivered in full and on time. Where there appears to be a real risk that a policy outcome is delayed or may even be changed, the ISP should appropriately account for that risk through sensitivity testing, so that stakeholders can clearly understand how the Optimal Development Path (ODP) may be impacted if the change being tested were to occur. Such sensitivity testing is helpful to inform stakeholders and to ensure the robustness of the ODP to a range of policy outcomes, and should cover both upside and downside changes, so that the plan remains a realistic pathway.

Within this framing of the role of the ISP, ENA sees the central reform to the ISP framework as treating distribution and consumer energy resources (CER) as decision variables, rather than inputs, in deriving the ODP. Under this reform, the ISP would be able to identify where distribution investment and CER can substitute for, or complement, grid-scale investment. Consistent with the role of the ISP as a co-ordinated planning document, rather than a policy document, the CER uptake included in an extended co-optimisation should be anchored to existing policy settings, rather than assuming unbounded uptake. However, the sensitivity testing around policy outcomes referenced above should also extend to testing the impact of higher levels of CER uptake where relevant (which may be the result of either consumer preferences and/or future policies).

The logical next step to extending co-optimisation is that the framework needs to support the progression of the distribution investments it then relies on as part of the ODP. However, the form of this support (and in particular, whether it includes an extension of 'actionability' to distribution investments, and what that looks like in practice) warrants further consideration. As set out in Section 2, this is best considered once the co-optimisation processes have matured, as a subsequent reform phase. On this basis, ENA supports exploring strawperson 3 (SP3) as part of this Review and how this reform can be implemented in a way which is measured and rigorous, and enables the expanded co-optimisation to take into account the full costs and varying risks associated with different investment trade-offs.

Refining the assessment in the ISP over successive ISP cycles, improving the inputs, weighing the trade-offs between a broader range of investment options, and testing and reporting the robustness of the results are all aspects of how the ISP has evolved under the current framework. The reforms contemplated under SP3 carry these refinements further. While some aspects may be material in methodological terms, they focus on changing how the ISP performs its role rather than altering its fundamental role. On that basis, ENA considers that the AEMC's focus on 'the plan' and 'the actionability mechanism' is a workable way to frame the choices in this review, and considers that the former (i.e., extension of co-optimisation to distribution and CER) should be given the greater

emphasis as a meaningful reform that has the potential to improve long-term outcomes for consumers.

1.1. The trade-off between transmission, distribution and CER should be brought into the plan, with full consideration of all costs and risks

The increasing uptake of CER – driven by a combination of government policies, tariff signals and consumer preferences – and the role distribution investment can play in unlocking the value of CER to the broader energy market, has changed the energy system the ISP plans for. Treating these resources as inputs rather than decision variables may limit the ISP's value going forward. Both the plan and the broader market would benefit from understanding the extent to which increased CER, together with the distribution investment that supports it, could help meet future system needs and deliver benefits to all consumers. Extending co-optimisation in the ISP to distribution and CER resources lets the plan directly test whether these resources have the potential to deliver more affordable and resilient whole-of-system outcomes compared to grid-scale investments, taking into account the full costs and differing risks associated with different investment types. It also gives stakeholders a clearer basis for confidence that the major transmission projects that remain on the ODP are the efficient choice against these alternatives.

ENA therefore supports the AEMC further exploring extending co-optimisation in the ISP to distribution and CER. ENA recognises that this needs to be done credibly, without a disproportionate increase in effort and without reducing the effort AEMO applies to testing the robustness of transmission outcomes and the resilience of generation and storage investment.

The enabling framework to allow the extension of co-optimisation could be established in the NER as an outcome of the current Review, with implementation and refinement through AEMO's methodology and guidelines phased over successive ISP cycles, once AEMO gains confidence that both DNSPs and Transmission Network Services Providers (TNSPs) are able to provide the necessary data and modelling to support broader co-optimisation. Setting up the NER framework now to accommodate broader co-optimisation, rather than deferring it to a later review process, would keep pressure on all parties to progress towards this reform.

The pace at which the reform can be introduced will be determined by AEMO's coordination with industry, and its ability to put the appropriate detailed methodologies and systems in place. ENA considers the reform should be progressed as fast as that capability allows, recognising that it will be progressively refined over ISP cycles.

1.2. Distribution investments that may be included in the co-optimisation fall into two categories

Distribution investments that may be relevant to consider in the ISP co-optimisation fall into two broad categories:

- major distribution projects, which are likely to be at the sub-transmission level, and which can be identified and assessed on a basis broadly comparable to major transmission projects, as evidenced in the 2026 ISP; and
- aggregated lower-voltage investments, together with the behind-the-meter CER they support, which are likely to comprise programs of many small, dispersed projects rather than a few large projects.

The two categories raise different questions for the ISP framework. While major distribution projects may be incorporated into an expanded co-optimisation framework in a manner broadly analogous to transmission projects, the lower-voltage tier is likely to present the greatest practical challenges in relation to modelling, data requirements, governance arrangements and any future consideration of

actionability. For these reasons, actionability is best considered as a subsequent reform phase once the co-optimisation framework matures, as discussed in more detail below.

1.3. A practical division of modelling effort makes broader co-optimisation tractable

The extension of co-optimisation to lower-voltage distribution investments and the CER they host is a significant reform in methodological terms, although it builds on capabilities AEMO has been developing in the 2026 ISP. It may be impractical for AEMO to extend its ISP modelling to include full modelling of all distribution networks down to the feeder and low-voltage level, noting that even at the transmission level AEMO's ISP modelling currently focuses on major flow paths and a limited number of sub-regions within each state.

The appropriate reform pathway is therefore likely to be for AEMO to work with a more aggregated representation of distribution, rather than for AEMO to undertake granular distribution network modelling. AEMO has already shown this aggregated approach is feasible. In the 2026 ISP, AEMO represented the existing capacity of distribution networks to support CER export through aggregated constraints, modelled how those constraints curtail CER export, and then co-optimised the distribution investment needed to relieve them (principally voltage management optimisation and network augmentation), against transmission and utility-scale options. It separately co-optimised two major sub-transmission distribution projects (which were a mix of transmission and distribution works) on a basis comparable to major transmission. The task is therefore to refine and extend an aggregated methodology over successive ISP cycles, rather than to develop full distribution modelling from first principles.

To make the extension of co-optimisation tractable, AEMO's ISP modelling role should continue to end at the sub-region level, that is, the level at which it currently represents the network. Below that, DNSPs should be responsible for modelling their own networks and providing AEMO with the data and inputs required for extending co-optimisation. For example, DNSPs could provide cost curves, expressed as a cost per MW of capacity, reflecting a portfolio of network and non-network options. In the extended co-optimisation, AEMO would then treat the distribution and CER resource behind each point of aggregation as it would any other transmission-connected resource. Over time, there may be a benefit in AEMO progressing from sub-regional towards transmission node identifier (TNI) level modelling, which would create a cleaner handover point to DNSP modelling and improve the representation of the transmission network itself.

It would be important to formally recognise DNSPs' modelling role in the NER or guidelines, potentially through an extension of the joint planning obligations relating to the ISP, so that DNSPs have a clear basis for the associated expenditure to be justified through regulatory processes.

In light of the potential to divide modelling effort (with DNSPs modelling below the transmission connection point and AEMO co-optimising above it), broader co-optimisation does not in itself require AEMO to change the fundamental structure of its ISP model. However, the ISP model is currently directed principally at identifying nationally significant transmission development pathways. Extending the framework to highly granular distribution investments, without a corresponding level of detail on constraints in the transmission network modelling, would result in inconsistent or incomplete treatment of the costs of the alternative investments the extended co-optimisation is trading off. This is because the transmission modelling would not capture the costs of any transmission augmentation required to support the distribution and CER outcomes the plan selects, understating the true costs of that option. It will therefore be necessary to increase the granularity of transmission modelling in the ISP to capture these constraints.

For the extension of co-optimisation to deliver a plan that stakeholders can credibly rely on, stakeholders and AEMO must be confident that the inputs received are robust and consistent across

DNSPs. This approach should therefore be implemented through AEMO developing a standardised methodology and guidance on the inputs it requires for the ISP modelling, in the way that it has for transmission investments. Readiness to provide granular data and modelling currently varies across DNSPs. There are also practical barriers to the integration of data in the analytical process that will need to be addressed for the reform to work in practice. The practical implementation of extended co-optimisation will therefore be dependent on the refinement of the detailed methodology by AEMO and the time taken for all DNSPs to develop the capability required to provide the necessary input. It may be reasonable to allow for transitional provisions for some DNSPs, akin to those applied to the first distribution network development plan.

ENA recognises that these are practical matters that will need to be carefully worked through. However, they are likely to be capable of resolution through AEMO's development and refinement of the appropriate methodologies, working together with stakeholders, rather than being reasons to defer the reform. ENA also recognises that this reform is likely to require an uplift in AEMO's capabilities, and greater clarity around the respective roles and responsibilities of AEMO and network businesses in the modelling process. However, overall the additional cost of that uplift is likely to be modest relative to the savings that a better informed ODP can help to deliver across the sector.

1.4. CER uptake in the co-optimisation should be anchored to existing policy settings

Distribution investment in the lower-voltage tier may be built to host CER, the uptake of which depends on a combination of consumer preferences, the tariff structures consumers face and government policies. While the uptake decisions of individual households are difficult to predict, CER uptake across a whole network is more predictable because the diversity of a large number of installations reduces the variability of the aggregate outcome. Some DNSPs already draw on extensive historical data to forecast future CER uptake and behaviour. Where uptake continues to grow as forecast, confidence in the continuation of those growth rates increases accordingly.

The CER uptake included in an extended co-optimisation should be anchored to existing policy settings. It will also be important to account for the way in which CER is assumed to behave, not only its uptake. Modelling levels of CER beyond what is reasonably achievable under prevailing policy settings risks the ISP relying on distribution investment premised on CER uptake that does not eventuate. It would also risk shifting the ISP away from its role as a planning instrument towards that of a policy document.

Higher levels of CER uptake, including uptake that would depend on policy support beyond current settings, are better explored through sensitivity testing, alongside other potential uncertainties, as discussed in Section 1.6.

1.5. Assessment of the risks associated with different investment trade-offs should be strengthened

An important corollary of extending co-optimisation to distribution and CER is the need for the ISP to robustly evaluate the differing risks between the investment types the plan trades off. Co-optimisation weighs transmission, distribution, CER, generation and grid-scale storage against one another. These different investment types do not present the same risks in terms of cost and reliability outcomes for consumers, and AEMO should continue to evaluate those risks across all of the investment types considered in developing the plan.

In particular, it is becoming increasingly important for the ISP to test the outcomes under different Candidate Development Paths (CDPs) against extreme weather conditions more robustly. As the growing penetration of renewable generation increases, at both grid-scale and distribution level, the power system becomes more exposed to periods of low renewable output. The ISP modelling

currently embeds weather outcomes through a fixed cycle of historical reference years applied across the planning horizon. AEMO already undertakes considerable analysis of severe weather conditions within those runs, including the identification of prolonged periods of low wind and solar output (*dunkelflaute*). ENA supports this work but considers that the resilience of the ODP should be tested against extreme-weather conditions more systematically.

As the share of renewable generation rises, extreme-weather conditions become a more significant driver of whether the system can maintain reliable supply, with the level of resilience required depending on the type of investments the plan trades off. At present, these conditions are examined diagnostically within the base runs rather than as explicit sensitivities. Testing and reporting severe-weather outcomes more thoroughly would give a fuller picture of the robustness of the ODP and of the contribution each type of investment makes under the conditions where resilience matters most.

1.6. Enhanced sensitivity testing is an appropriate near-term step, and should extend beyond CER uptake

Extending co-optimisation to distribution and CER will require successive ISP cycles to mature. In the near term, enhanced sensitivity testing on CER uptake is an appropriate and pragmatic next step, and will remain valuable as co-optimisation capabilities continue to develop. The 2026 ISP already captures higher CER uptake at the scenario level and runs two sensitivities exploring lower uptake through reduced coordination.

Future ISPs should build on this by incorporating additional sensitivity testing for both higher and lower CER uptake, including the associated changes in network costs – across both distribution and transmission. In addition to testing uptake levels, it will also be important to test different assumptions regarding the extent to which CER is orchestrated or aggregated. While sensitivity testing cannot itself select distribution investment and CER as a substitute for other investment types in the way co-optimisation can, it can provide valuable insights into the extent to which the ODP is exposed to different CER outcomes while the co-optimisation framework is being developed.

More broadly, sensitivity testing already plays this role across a range of inputs in the ISP, and its value is not confined to assessing CER outcomes. ENA considers it should continue to be applied, and where useful extended, to a broader set of upside and downside outcomes, including changes to the timing and delivery of government policies and demand-side uncertainties, such as the growth of large loads, including data centres. The forthcoming Demand Side Statement of Opportunities is a potential vehicle for developing the demand-side sensitivities.

1.7. Co-optimisation should not extend to gas

ENA does not support extending co-optimisation in the ISP to gas investments as part of this Review. Gas projects operate under a market-driven investment framework that sits outside the statutory planning and delivery processes that apply to electricity investments. There is no equivalent actionability framework for gas investments of the kind that gives effect to electricity network projects on the ODP.

Extending co-optimisation to gas in the ISP would require substantial framework changes that would divert attention from the focus and rigour necessary to successfully implement the priority reform of extending co-optimisation to distribution and CER.

Changes in demand on gas networks may drive electricity distribution expenditure in rural and regional areas undergoing electrification. Greater visibility of timing and location of gas network changes would therefore help inform distribution planning. However, where the gas outlook is relevant to the ODP, these impacts can be captured through the ISP scenarios or sensitivity testing as inputs into the analysis, rather than requiring the extension of co-optimisation.

ENA notes that the future financeability of gas-powered generation (GPG) built to run only for short peaking periods is a material and currently unresolved question. There may be merit to considering extending co-optimisation to GPG as part of a future ISP review process, but not as part of the current Review.

2. The actionability mechanism

2.1. Strengthening the national pathway is supported, provided changes remain proportionate

ENA supports the AEMC's intent of looking for ways to strengthen the national pathway for the assessment and delivery of projects on the ODP, to make it faster where possible. However, any changes should be proportionate and build on the existing framework, rather than representing a wholesale change that is more likely to increase investor uncertainty and ultimately slow project delivery.

The AEMC's intent is to make the national pathway more attractive relative to jurisdictional frameworks. A stronger national pathway is desirable, but ENA notes that projects may be identified or progressed through jurisdictional frameworks for a range of reasons, including (but not limited to) the broader economic benefits projects can support (which are not captured in the economic assessment under the NER) and the social licence and delivery support that state government involvement can provide.

ENA also notes that the NER ISP framework and the jurisdictional frameworks are not the only pathways through which transmission and distribution network investment is identified and progressed. TNSPs, in their role as jurisdictional planning bodies, and DNSPs already identify net beneficial investments under the broader NER framework, which can include co-optimising asset replacement against augmentation, identifying capacity needs outside of those identified in the ISP, and joint planning arrangements.

Changes to the national framework should therefore be proportionate, and an important outcome of this Review is that the ISP framework in the NER adequately recognises the operation of jurisdictional frameworks alongside it.

ENA agrees with the AEMC that a faster and better aligned national pathway is more beneficial than a tighter link between the ISP and subsequent project assessment. The AEMC has framed timeliness as a trade-off between a tighter linkage and flexibility. ENA does not consider this necessarily to be a tension in practice. As the AEMC identifies, a tighter link would deliver little in the way of benefits due to the binding constraints on delivery that are external to the framework (including, but not limited to, planning approvals and supply chain rigidities). Where the framework itself contributes to delay, it is through insufficient flexibility rather than too much flexibility (that may warrant a tighter linkage).

Where a RIT-T proponent cannot update an assumption to reflect more recent, localised or appropriately granular information, the RIT-T assessment proceeds on inputs that are either out of date or insufficiently detailed to accurately represent network limitations and the impact of credible options. This can create scope for disputes over a project's justification and increase the likelihood of divergence between the RIT-T and a subsequent contingent project application (CPA). Greater flexibility between the ISP and project-level assessment is therefore likely to support timely delivery than a tighter linkage.

ENA also agrees with the AEMC's observation that there is a potential lack of clarity in how projects that move between, or interact across, the national and jurisdictional pathways are treated, and that greater clarity would be beneficial. The Discussion Paper's illustrative example of an inter-regional

project that splits across two frameworks part way through a joint RIT-T, while the ISP continues to list it as a single actionable project, provides an example of where that uncertainty can arise, noting that there may also be other circumstances.

2.2. Extending actionability to distribution projects warrants further exploration

Bringing distribution into the plan has an important counterpart on the delivery side. Where the ISP identifies distribution investments as part of the ODP, DNSPs should have a clear pathway to assess, deliver and recover the costs of those investments. In this respect, extending actionability to distribution projects appears a logical corollary to an expanded co-optimisation framework. Currently, however, distribution investments identified as being on the ODP do not benefit from an automatic contingent project trigger, which can limit timely cost recovery until the DNSP's next regulatory determination.

ENA therefore considers there is a case for exploring the extension of actionability to distribution projects on the ODP. However, actionability is not a reform that should be resolved through this Review. ENA considers it is better approached as a subsequent step following the extension of co-optimisation, rather than proceeding in parallel with it. Extending co-optimisation might be supported by AEMO drawing on DNSPs' modelling of their networks, rather than undertaking that work itself. Prematurely attaching actionable status to distribution investments risks undermining this approach, as it may lead AEMO to assess those projects to a level of detail that the division of effort is intended to avoid. Establishing and maturing the co-optimisation framework first will allow AEMO and network businesses to build confidence in its application, before considering actionability.

Extending actionability even to major distribution projects requires careful consideration of the potential interactions with jurisdictional planning frameworks, where applicable, and the RIT-D. The challenge becomes more significant with any extension to programs of lower voltage distribution works, which raises a more fundamental question of what 'actionability' would look like for those works. This Review could set a potential future direction for consideration of this reform but it should not be a focus of the AEMC's current review. Accordingly, whilst ENA supports progressing SP3 through this Review, it does not support a focus on SP4 at the current time.

ENA notes that distribution investments included in the ODP would still be able to be progressed by DNSPs, even in the absence of actionability, under the existing regulatory framework.

3. General issues with the delivery framework

In relation to improvements to the economic assessment process more generally (which is reflected in, but remains unspecified, across the AEMC's SP2-SP4), ENA supports retaining both the ISP and the RIT-T for actionable ISP projects, and does not support removing the net-benefits assessment from the RIT-T.

The ISP and the RIT-T assessment stages of the Economic Assessment Process perform distinct and complementary functions. The ISP assesses the development pathway at a system level, selecting the projects that make up the ODP. The RIT-T assesses an individual project in detail, at a granularity the system-level analysis does not, and cannot, achieve. Removing the net-benefits assessment would leave no project-level test of whether a specific investment is the efficient response to the identified need, and it is that project-level scrutiny that supports the accountability and social licence on which major investment depends.

There may, however, be opportunities to reduce genuine duplication between the two processes without diminishing that project-level assessment. ENA highlights some potential opportunities below, alongside responses to other issues in the AEMC's Discussion Paper.

3.1. Joint planning should allow options to be revised in light of early ISP modelling

ENA has previously proposed that the interface between the ISP and the RIT-T would be improved by extending joint planning between TNSPs and AEMO to give greater visibility of early ISP modelling outcomes. That visibility would allow the credible options under assessment to evolve as modelling progresses, focusing effort on the aspects of those options that warrant more detailed review. Under this approach the list of credible options is treated as a living input rather than becoming fixed too early in the process, while also allowing key network input assumptions to be updated as better information becomes available. This additional flexibility at the ISP stage is likely to improve alignment between the ISP and subsequent RIT-T assessments by reducing the time lag between the development of key inputs and their application in each process.

Allowing key planning inputs, such as the Transmission Cost Database and Electricity Network Options Report, to be updated between the Draft and Final ISP as new information becomes available would support the same objective. This would enable the Final ISP to draw on the most current information regarding network capacity, credible options and project costs, improving the quality of the assessment and strengthening alignment between the ISP and RIT-T processes.

3.2. RIT-T and RIT-D proponents should have greater flexibility to depart from ISP assumptions

The framework should give RIT-T (and RIT-D) proponents greater flexibility to depart from ISP assumptions where they can demonstrate, based on evidence, that more recent, localised or appropriately granular information warrants such departures. Forecasts developed for the ISP, or, in many cases, the earlier Inputs, Assumptions and Scenarios Report (IASR) will not always remain current. A RIT-T (or RIT-D) proponent should therefore be able to update assumptions during the RIT-T (RIT-D) process where justified, ensuring that the economic assessment process is informed by the most recent and credible information available to support timely investment. Any updated inputs or assumptions a proponent adopts should remain subject to consultation with stakeholders through the RIT-T (RIT-D) process, ensuring they are transparent, visible to stakeholders and open to scrutiny and challenge.

Under the current NER, RIT-Ts take the assumptions set in the ISP and the IASR as their starting point, and ENA supports retaining that link because it helps limit disputes over a project's justification. However, retaining that link should not prevent proponents from departing from those assumptions where there is clear evidence for doing so. The objective should be greater flexibility within the framework, rather than removing the connection between the ISP and subsequent project assessment altogether.

The principal constraint on updating the assumptions currently lies in the AER's Cost Benefit Analysis guidelines rather than the NER itself. The guidelines link flexibility to vary assumptions to changes that will, but have not yet been, reflected in a subsequent ISP or ISP Update, which may limit proponents' ability to respond to more recent information.

Importantly, "consistency" with the ISP should not require a project-level assessment to replicate the ISP's inputs, assumptions and methodology in full. The value of the RIT-T (and RIT-D) lies in its ability to focus on the identified need and assess it at a level of granularity the system-level ISP cannot achieve, while remaining aligned with the ISP's overall conclusions on the ODP. It would be beneficial for the Review to clarify that consistency operates at this level, so that a proponent can bring more granular or localised analysis to bear without being treated as departing from the ISP.

Although greater flexibility may be able to be achieved through a change to the AER Cost Benefit Analysis guidelines, it is important that the NER framework supports this greater flexibility for transmission investments through feedback loop provisions that can more readily accommodate

departures from the ISP assumptions. This includes the more granular and localised network modelling undertaken through a RIT-T that is not replicated in the ISP. Confirmation through the feedback loop matters because it allows a contingent project application to be triggered for cost recovery for ISP projects. For example, a project may be identified in the ODP as a future project, while the RIT-T modelling demonstrates that it delivers net benefits earlier and should proceed within the actionable window.

The AER Cost Benefit Analysis guidelines (section 3.5.3) already make explicit that AEMO is able to confirm that a project satisfies the feedback loop without re-running the ISP model, where re-running is not practicable. However, re-running the ISP model remains the presumption, and AEMO's current practice. It may therefore be beneficial for the NER or the AER's guidelines to make clear that AEMO may provide the feedback loop confirmation (i.e., that the preferred option aligns with the ODP and its cost does not change the project's ODP status), based on its own modelling and analysis or on its assessment of the modelling and materials provided by the RIT-T proponent, regardless of whether a full ODP update is undertaken. In practice, the key test is whether the preferred option remains aligned with the ODP and whether changes in cost or timing would alter its status within the development pathway.

3.3. AEMO should have explicit flexibility in the NER to set alternative scenario weightings for a RIT

ENA reiterates a point it made in its earlier submission to the Consultation Paper that AEMO should have explicit flexibility in the NER to set alternative scenario weightings to be applied in the RIT-T for an actionable ISP project, rather than only to include or exclude specific scenarios.

The Discussion Paper characterises this as confirming AEMO's flexibility to direct proponents to exclude scenarios from a RIT-T assessment (i.e., assigning a scenario a zero weighting and re-normalising the remaining weightings). That binary choice is not the flexibility ENA is seeking. Rather, the current framework does not permit AEMO to set intermediate scenario weightings for a specific actionable ISP project, which would allow a RIT-T to better reflect project-specific and localised risks.

3.4. Reassessment of each ISP cycle confirms that projects continue to deliver net benefits

ENA considers reassessing a project for each ISP cycle, until it is committed or anticipated, is appropriate. Given the scale of the investment involved for most ISP projects, reassessment gives consumers confidence that the projects on the ODP continue to be justified.

However, where reassessment results in a project being removed from the ODP or ceasing to be actionable, this should follow from clear criteria applied with careful judgement, rather than from marginal movements in the modelling between cycles. A stable planning outlook depends on projects being removed only where there is a sound and durable basis for doing so, not on assessments that may reverse at the next cycle. Greater transparency around the robustness of a project's inclusion in the ODP (as discussed further in section 3.6) would further support this approach.

3.5. The MCC provisions may duplicate cycle-by-cycle reassessment in the ISP

Applying the material change in circumstances (MCC) provisions alongside cycle-by-cycle ISP reassessment can be duplicative, and may carry administrative effort for little gain, where a contingent project application is not expected within the six months following the Final ISP. In this circumstance, reassessment through the ISP could be taken as sufficient to confirm that no material change in circumstances has occurred over that period, which would remove this duplication.

The exception is where a network business lodges a contingent project application within six months of the Final ISP. There, the requirement to provide a statement that no material change in circumstances has occurred, supported by an appropriate assessment, should remain so that stakeholders retain confidence that the project both remains on the ODP and remains the preferred option at the costs now estimated and being sought through the CPA.

The NER could also set out when a project ceases to be subject to the material change provisions, for instance, once it reaches anticipated status, to prevent continuous reassessment.

3.6. Greater transparency around the robustness of a project's inclusion on the ODP would provide helpful insights to stakeholders

Greater transparency around the robustness of each project's inclusion in the ODP, and the assumptions on which that inclusion depends, would improve both stakeholders' understanding of the ISP outcomes, and how those planning outcomes may change where key assumptions vary. This would strengthen confidence in ISP outcomes and the resilience of the ODP, reinforcing the ISP's role as a credible and co-ordinated planning framework that policy makers, investors and stakeholders can rely on when making decisions.

The ISP currently tests project inclusion on the ODP, though only in one dimension. The CDPs take the preliminary optimal development path and move individual actionable projects in or out, re-optimising the rest of the path each time, so that the comparison isolates each project's contribution to net market benefits. This is done against the three weighted ISP scenarios, and the resulting rankings of the CDPs select the optimal development path.

This structure is a sound foundation and should be extended to the distribution and CER options reforms to co-optimisation may bring into the plan.

AEMO's robustness testing could be strengthened in a further respect. Project-level contribution was tested in the 2026 ISP against the weighted scenarios, but not against the input sensitivities. Testing project level contribution against those sensitivities would show which projects sit on the ODP by a narrow margin, where a plausible change in the assumptions behind them would affect their inclusion. The CDP-level analysis does not draw this out at present, or state what a marginal project's inclusion depends on. Identifying these more marginal projects and the assumptions they rely on, as well as demonstrating the robustness of other projects to inclusion on the ODP, would give stakeholders a clearer basis for confidence in the ISP.

4. Appendix

AEMC question	Reference
<i>Q1 – Are there additional benefits provided by the ISP that are not explored in this chapter?</i>	Not addressed
<i>Q2.1 – Have changes in the sector, such as the increasing role of distributed energy resources and consumer energy resources, affected the value of the ISP in its current form?</i>	Section 1.1
<i>Q2.2 – Where do national and jurisdictional planning and delivery frameworks complement one another, and where do they create coordination challenges?</i>	Section 2.1
<i>Q2.3 – What features of the future energy system should the Commission consider when assessing whether and how the ISP framework should change to remain effective and resilient?</i>	- Section 1 (opening) - Section 1.5 - Section 1.6
<i>Q3.1 – Do you agree that the plan and the actionability mechanism are the right way to frame the choice of possible purposes for the ISP?</i>	Section 1 (opening)
<i>Q3.2 – Are there other parts of the ISP framework that should be considered alongside the plan and the actionability mechanism in shaping its future purpose?</i>	Section 3 (all subsections)
<i>Q3.3 – Does the ISP provide sufficient guidance and information to support decisions by parties beyond regulated asset owners? If not, what are the gaps and improvements?</i>	Not addressed
<i>Q4.1 – Do the purpose statements for SP1-SP4 appropriately describe potential roles for the ISP? If not, how should the purpose be articulated differently?</i>	Not addressed
<i>Q4.2 – Which of the strawpeople (SP1, SP2, SP3 or SP4) best supports the future energy system and why?</i>	- Section 1 (opening) - Section 2.2
<i>Q4.3 – Are there elements of more than one strawperson, or an alternative combination, that you would support?</i>	Not addressed
<i>Q4.4 – What broader design features (across planning, delivery and governance) would need to change to give effect to your preferred strawperson?</i>	- Section 1.1 - Section 2.2

Q5.1 – Do you agree with the Commission's approach to forming an initial preference between the strawpeople?

- Not addressed

Q5.2 – Do you agree with the four factors and the two judgements on their relative weight that underpin the initial preference for SP3?

- Not addressed

Q5.3a – Where does the current treatment of small distribution, CER and demand-side resources as inputs risk distorting the ODP?

- Section 1.1

Q5.3b – Which resources would be most material to co-optimize, and which would risk adding complexity without commensurate benefit?

- Section 1.1
- Section 1.2
- Section 1.7

Q5.3c – What modelling capability, data and governance arrangements would be needed to support broader co-optimisation?

- Section 1.3

Q5.3d – What risks might a broader plan create for ODP stability, transparency and accountability, and how could they be managed?

- Section 1.4
- Section 1.5
- Section 1.6

Q5.4a – Where does the current interaction between the ISP and the RIT-T create duplication, delay or unnecessary process complexity?

- Section 3.5

Q5.4b – What specific reforms could improve the timeliness and efficiency of the RIT-T while preserving appropriate scrutiny?

- Section 3.1
- Section 3.2
- Section 3.3
- Section 3.5

Q5.4c – To what extent would a faster and more predictable national pathway retain more projects within the national framework rather than moving to jurisdictional pathways?

- Section 2.1

Q5.4d – What implementation risks or trade-offs are associated with reforming the RIT-T and related processes?

- Section 2.1
- Section 3.2

Q5.5 – Are there features of jurisdictional planning and delivery frameworks the Commission should consider incorporating into the national framework?

- Not addressed

Q6.1 – What benefits would extending the ISP's purpose to co-optimize across electricity and gas infrastructure bring, and what risks would it introduce?

- Section 1.7

Q6.2 – If the ISP's purpose extended to gas, what evidence or considerations would be relevant to the scope of any associated actionability mechanism?

- Not addressed

Q7.1 – Does the ISP's existing modelling approach reduce the credibility of the ODP? If so, how?

- Section 1.3

Q7.2 – How would more comprehensive modelling change the outcomes of the ODP?

- Section 1.1
- Section 1.3

Q7.3 – What further prescription in the NER or guidelines would help the ISP better support investment and policy decisions?

- Section 1.1
- Section 1.3

Q8.1 – What are examples of how the requirement for RIT-Ts to maintain alignment with the ISP would lead to poorer outcomes for consumers? Should flexibility be improved?

- Section 3.2

Q8.2 – Does the reassessment of actionable ISP projects have material consequences for investment certainty? If so, what is an appropriate alternative?

- Section 3.4

Q8.3 – Do TNSPs consider there is duplication between the ISP and RIT-T that materially impacts timely delivery? If so, how should it be removed?

- Section 3 (opening)
- Section 3.5

Q8.4 – Is there a lack of clarity in the treatment of projects that move between, or interact across, the RIT-T and jurisdictional pathways, and how can it be improved?

- Section 2.1

Q9.1 – How do existing accessibility and transparency issues materially impact the value of the ISP, and how can the ISP be more accessible?

- Not addressed

Q9.2 – Can the ISP Consumer Panel effectively input into the ISP process, and how could it be better supported?

- Not addressed

Q9.3 – Do network businesses and AEMO consider there are material issues with the flexibility of joint planning and information sharing? What prescription would improve early collaboration?

- Section 3.1

Q9.4 – Does the inflexibility of the ISP cycle or update framework to capture new information materially impact the ODP and investment decisions?

- Section 3.1
- Section 3.2

Q9.5 – Is there sufficient clarity over how projects are represented in the ISP, and how can it be improved?

- Not addressed

Q10.1 – Do stakeholders agree the Review should not further consider the identified issues?

- Not addressed

Q10.2 – Are there additional issues, not outlined in the discussion paper, that materially reduce the ISP's value and should be considered?

- Not addressed