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17 January 2020

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By email: info@esb.org.au

**Converting the Integrated System Plan into Action – Draft Rules**

Energy Consumers Australia appreciates the opportunity to comment on the Energy Security Board's (ESB) *Converting the Integrated System Plan into Action Draft Rules* (the Draft Paper) and associated *Consultation Paper* (the Paper) of November 2019. We have taken a close interest in the development of the first and second Integrated System Plans (ISP) and we provided a submission in response to the ESB's *Converting the Integrated System Plan into Action Consultation Paper* (the Consultation Paper) of May 2019.

Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the Council of Australian Governments (COAG) Energy Council (the Energy Council) in 2015, our objective is to promote the long-term interests of energy consumers with respect to price, quality, reliability, safety and security of supply.

In the attached submission, we have identified three principles which must underpin the ISP process. These are that the process and resulting plan must be:

- Independent
- Integrated
- Whole of System

Our submission contains two sections. The first is an expansion on the principles above and the second is a response to the Draft Rules focusing on places where we think the Draft Rules could be amended to further the achievement of the principles outlined.

If you have any questions regarding this submission please contact our Senior Economist, David Havyatt at david.havyatt@energyconsumersaustralia.com.au or on 0414 467 271.

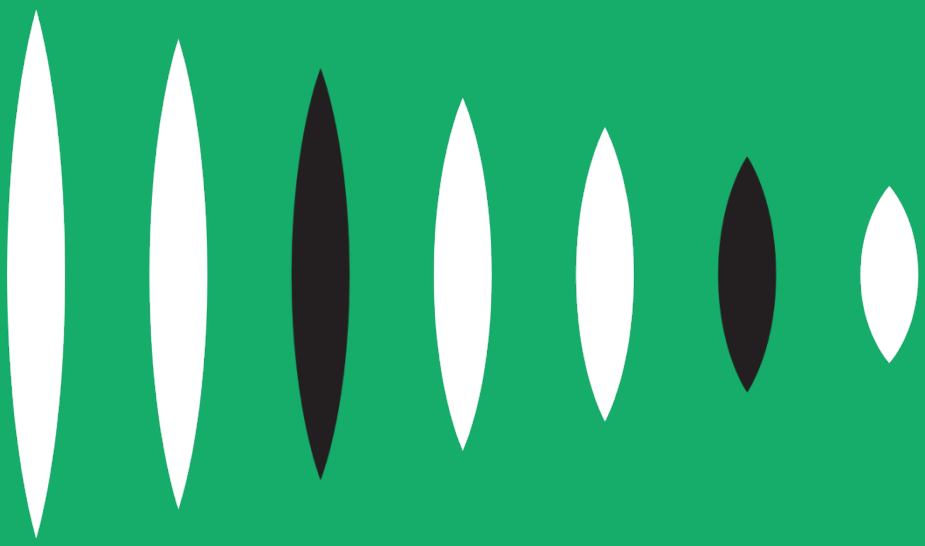
Yours sincerely,

Rosemary Sinclair AM
Chief Executive Officer

# Actionable ISP

Submission on the Draft Rules

January 2020



ENERGY CONSUMERS AUSTRALIA

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# Introduction

Energy Consumers Australia appreciates the opportunity to comment on the Energy Security Board's (ESB) *Converting the Integrated System Plan into Action Draft Rules* (the Draft Rules) and associated *Consultation Paper* (the Draft Rules Paper) of November 2019. We have taken a close interest in the development of the first and second Integrated System Plans (ISP) and we provided a submission in response to the ESB's *Converting the Integrated System Plan into Action Consultation Paper* (the May Consultation Paper) of May 2019.

As we will expand on further in this submission, we have identified three principles which must underpin the ISP process. These are that the process and resulting plan must be:

- Independent
- Integrated
- Whole of System

Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the Council of Australian Governments (COAG) Energy Council (the Energy Council) in 2015, our objective is to promote the long-term interests of energy consumers with respect to price, quality, reliability, safety and security of supply. While there are many dimensions to the definition of the long-term interest of consumers, in general it can be summarised as current and future consumers pay no more than they need to for the quality of service they are prepared to pay for.

Energy Consumers Australia strongly supports the development of national electricity system planning as represented by the Integrated System Plan. We hope that our contributions to the ESB's consultations and to the AER's associated Guideline consultation assist in developing the concept of the ISP as an independent, integrated, whole of system plan that informs energy system planning and energy policy development.

This submission contains two sections. The first is an expansion on the principles above and the second is a response to the Draft Rules focusing on places where we think the Draft Rules could be amended to further the achievement of the principles outlined.

# ISP Principles

An independent, integrated, whole of system plan is an essential component in managing the transition of the energy system at least cost to consumers while ensuring the resilience of the power system in the face of a changing environment.

'Resilience' is being increasingly used to describe expectations from the power system. As such it covers both the events that typically feed into system reliability (that is sufficient generation to meet demand at the price demand is prepared to pay), network reliability (the ability of the network to transport energy) and system security (maintaining the safe operation of the system especially after events such as loss of components). All of these are 'events' that can result in consumers not being able to use electricity when they want to, at a price they are prepared to pay.

Resilience, however, adds an additional dimension to these characteristics; it incorporates elements designed to prevent these events but also how to manage these events while they are occurring and the recovery from these events.

The energy system transition is resulting in a system with more significant active components (for example more smaller generators) with different characteristics (variability, ramp rates, inertia). We believe that it is these changes that prompted the *Future Security of the National Electricity Market Review* to recommend the development of an Integrated System Plan.

In our response to the May Consultation Paper we outlined both the genesis of AEMO's function as the 'national transmission planner' and of the further development of this function to be an integrated system planning function by the *Future Security of the National Electricity Market Review.* [1] A short summary of these developments is provided as a platform for further explaining the principles that must underpin the ISP process.

The National Transmission Planner Model that was adopted for the NEM was one of four options considered in *Energy Reform: The Way Forward for Australia*[2]. In describing the model, the report noted (emphasis added):

> *The National Transmission Planner would be charged with the development of an* ***independent strategic national plan*** *outlining the* ***broad development of the power system and the national transmission network*** *with a minimum outlook of ten years updated annually. The planner would have statutory responsibility for the development of the National Transmission Network Development Plan (NTNDP) in accordance with given objectives.*
>
> *The body would be responsible for formally involving both TNSPs and network users in the development of the NTNDP and to consult*

[1] https://www.energy.gov.au/government-priorities/energy-markets/independent-review-future-security-national-electricity-market
[2] https://www.energy.gov.au/publications/energy-reform-way-forward-australia-final-report-2007

> *on the Plan. It would maintain the resources necessary to develop its own independent assessments. Most importantly, the National Transmission Planner would have an obligation to advise the AER in respect of the appropriateness of capital spending proposals in revenue cap submissions by TNSPs. This would ensure that the NTNDP is given greater relevance by strong links with the regulatory regime.*

It is worth noting that the same (2007) report noted:

> *While not supporting a nodal pricing approach at this stage, the MCE has directed the AEMC to review the effectiveness of the current congestion management regime in the NEM and to consider improvements in congestion management.*

The *Future Security of the National Electricity Market Review* found that (emphasis added):

> *A **more strategic approach** is required for the coordination of generation and transmission investment in the NEM, and to ensure security and reliability are maintained.*

Two key elements identified in the recommendation for the development of an Integrated System Plan was the need to '*facilitate the efficient development and connection of renewable energy zones across the National Electricity Market'* (Recommendation 5.1) and '*develop a list of potential priority projects in each region that governments could support if the market is unable to deliver the investment required to enable the development of renewable energy zones.' (*(Recommendation 5.2).

It is important that the Draft Rules for an 'actionable ISP' support the intention for a 'more strategic approach' rather than simply becoming an actionable transmission plan.

## Independent

The word 'independent' was used to describe the original National Transmission Planner. The function is allocated (under s49(2) of the National Electricity Law) to the Australian Energy Market Operator (AEMO) which is established as a company jointly owned by industry and government. Independence in this context has a number of important connotations.

Investments in many of the elements of the power system – especially transmission and distribution assets – are long lived assets. The objective agreed by Australian Governments in the Australian Energy Market Agreement to promote "the long-term interests of consumers with regard to the price, quality and reliability of electricity and gas services" reflects this reality.

The Australian electoral cycle of three or four year parliamentary terms makes it difficult for any one Government to deal with the planning of the energy system. The independence from the political process is also important when these investments are made by investor owned companies rather than the Governments themselves.

In describing the global progress of reform of electricity systems, Professor Stephen Littlechild has written:

> *Proponents of electricity reform have had many and diverse aims, not always mutually consistent. The Introduction [by Paul Joskow] suggests that "the over-riding reform goal has been to create new governance arrangements that provide long-term benefits to consumers."*
>
> *These benefits are to be realized by creating competitive wholesale and retail markets to improve efficiency and responsiveness to customer preferences, by incentive regulation of privatized transmission and distribution networks to improve their efficiency and facilitate competition across them—and, I would add, by reducing the role of government and political interference generally.*[3]

Australian Parliaments (of the NEM jurisdictions) enacted this regime and made conscious decisions about the allocation of functions between market bodies and jurisdictional Ministers. That decisions are made by bodies established by legislation is not an 'undemocratic' approach when those bodies are established by Parliament. The role of Government in this model of the system is to establish the framework for system operation and then not be involved in short term operational decisions.

Independence from politically motivated intervention is only one aspect of the requirement.

Independence is also required of other actors in the energy system.

We are used to the glib term that something will be 'technology independent' but the practical reality is that the existing socio-technical regime frames the way that even experts think about the system.[4] The technology that we are familiar with frames our thinking. In the context of the power system the specification of an inertia requirement as part of maintaining system frequency is one example of how this occurs.

Independence requires a conscious effort of asking the 'what if' questions, of exercising deep scepticism about aspects of the system that are taken as a given. These are important questions to ask about the entire plan and about individual projects within the plan.

The confluence of the need for independence from both political intervention and technology framing is that an **independent** system plan must consider a wide range of alternative policy settings and technologies as options in system development. If, for example, a technical solution provides system wide benefits greater than costs, but is unfinancial for a developer because the benefits are (in economics terms) an externality, then the plan should

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[3]Stephen Littlechild 2006, 'Preface: Electricity Market Reform ', in F Sioshansi & W Pfaffenberger (eds), Electricity Market Reform: An International Perspective, Elsevier Science.

[4] Geels, FW 2002, 'Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study', *Research Policy*, vol. 31, no. 8, pp. 1257-74.

consider the prospect of that technical solution in conjunction with a policy position (for example, a subsidy).

Independence is demonstrated in part through transparency in the process of developing the plan. It is further demonstrated by the extent to which the plan considers what might seem to be 'unthinkable' options.

## Integrated

The Australian energy system consists of five inter-related markets (wholesale and retail gas and electricity, and consumer owned energy resources) and four regulated services (electricity transmission and distribution, gas pipelines and distribution). The electricity and wholesale retail services are partial substitutes, and gas wholesale is an input to the electricity wholesale market. All of these are governed by laws, rules, procedures and guidelines.

In addition, there are external influences such as government subsidies for rooftop solar panels or residential batteries. A feature of the recent NSW Electricity Strategy[5] is explicit support for the Central West Renewable Energy Zone ('Australia's first coordinated Renewable Energy Zone').

How the energy system can and will develop is influenced by all these factors. As mentioned in the introduction, the use of nodal pricing for generation will improve coordination between transmission and investment. Similarly, how load profiles evolve over time will be heavily influenced by the speed with which consumers are provided with pricing that rewards them for changing their load profiles. (Note that the Draft 2020 plan includes no consideration of how consumer pricing evolves).

The plan needs to be integrated in the extent to which it considers how technology, consumer behaviour and policy options all contribute to the future development of the system. The plan needs to be integrated by recognising the interplay between these elements. For example, even if there was complete agreement on the future price for household energy storage, future take-up would be influenced by what is happening to the price level of grid delivered electricity and the structure of those prices. The ongoing reduction in 'effective' demand in the middle of the day is putting greater pressure on networks and retailers alike to introduce new pricing structures. How these structures are introduced in turn depends on government policy.

Industry itself and its customers are also exposed to other public policy and regulatory expectations. In April 2019 the AASB and AuASB republished a joint guidance document[6] which provides guidance to financial statement preparers and auditors on how to consider climate-related risks in the context of the financial statements, including their potential impact on the amounts recognised and associated disclosures. As PwC has noted[7]:

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[5] https://energy.nsw.gov.au/government-and-regulation/electricity-strategy

[6] https://www.aasb.gov.au/admin/file/content102/c3/AASB_AUASB_Joint_Bulletin_Finished.pdf

[7] https://www.pwc.com.au/assurance/ifrs/assets/straight-away-alert-20190521.pdf

> *While potentially relevant for entities in all industries, there are certain industries where climate-related risks are more likely to have an impact on the financial statements, including energy, resources, transportation, agriculture, and certain financial sector entities such as banks and insurers.*

The identification and reporting of risks is only the first step to these industries taking action to respond to these risks.

One consequence of the need for the plan to be integrated is that the scenarios used in the development of the ISP need to reflect the breadth of alternative development paths that are commensurate with this degree of complexity.

In the 2018 Health of the NEM report the ESB advised in relation to Recommendation 3.1 of the *Future Security of the National Electricity Market Review* (The Australian Government should develop a whole-of-economy emissions reduction strategy for 2050) that implementation was 'on track.' The report noted that the Australian Government published its review of climate change policies on 19 December 2017 and that consistent with the Government's response to the Finkel Review, the Government is developing a long-term emissions reduction strategy by 2020.[8]

The Communique from the COAG Energy Council in November 2019 which noted that Ministers discussed the Commonwealth's development of a technology investment roadmap[9]. On 14 January 2020 both *The Australian* and the *Australian Financial Review* reported that the technology roadmap was central to the Government's emissions reduction planning.[10]

Integrated planning needs to incorporate the elements of the technology roadmap when it is released.

## Whole of System

As described above the energy system is a complex interconnection of markets and regulated services. This complexity will become more intricate as the process of electrification of services currently provided by gas and oil accelerates.

These changes don't only have engineering consequences for the system, they have economic consequences for the system.

The electricity system primarily includes generation and storage resources, transmission, distribution and loads. The process of digitisation makes it

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8 http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/the%20health%20of%20the%20national%20electricity%20market%20-%202018.pdf

9 http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/EC%20-%20Final%20Communique.pdf

10 https://www.theaustralian.com.au/nation/politics/renewables-key-to-carbon-cuts-as-100-technologies-in-frame/news-story/5b21796c92306794e2f759c497f73b7b and https://www.afr.com/policy/energy-and-climate/technology-is-the-key-to-climate-policy-20200113-p53qy3

increasingly possible (though not yet realised) for all of these elements to be more responsive. Generation is now located anywhere in the system; transmission connected, distribution connected and located on the customer side of the network connection point and has very different characteristics. Load is changing and is more frequently inverter connected (reducing system inertia) but is increasingly capable of being responsive to system characteristics. Storage in the form of pumped hydro has always been available, but is now, like generation appearing at different places in the system, is inverter connected and has a variety of different characteristics.

The National Hydrogen Strategy adopted by the COAG Energy Council in November 2019 noted the importance of integrated whole of system planning in the following terms (emphasis added)[11]:

> *As discussed in previous chapters, hydrogen enables energy to flow between the electricity, gas, and transport sectors. Electrolysers, as large electrical loads, can be ramped up and down to provide demand response and frequency control services for electricity systems. Hydrogen from electrolysis can be blended with natural gas, stored as a gas, used as a fuel for transport or converted back to electricity as needed to manage daily and seasonable variability in renewable energy supply or to meet peak energy system needs.*
>
> *Future energy market planning and reforms will need to account for how hydrogen will change the way energy systems and markets operate. For example,* ***AEMO's Integrated System Plan and current and future electricity market reforms should consider the impact of electrolyser loads and increased need for generation in electricity systems****. Other areas where large-scale hydrogen production may affect energy markets include:*
>
> - *ancillary services*
> - *grid connection arrangements*
> - *demand response mechanisms*
> - *investment coordination*
> - *the value of energy storage*
> - *management of distributed energy resources*
> - *network system strength and likely future congestion.*
>
> *Governments will ask energy market bodies to account for the possible effects of hydrogen industry growth in their planning and future reforms. Industry will need to communicate its preferred market settings early to help guide market bodies.*
>
> *Governments further agree to a future review, drawing on experience from pilot projects, trials and demonstrations, to consider options for energy market reforms to improve the integration of hydrogen into energy markets and to deliver additional benefits from hydrogen to consumers. The review will be completed by 2024.*

[11] https://www.industry.gov.au/sites/default/files/2019-11/australias-national-hydrogen-strategy.pdf

A whole of system plan needs to look at all aspects of the system. As we noted in our submission to the May Consultation Paper 'In practice the focus of the first ISP simply became a stronger form of transmission planning.' The draft 2020 ISP is an improvement on the 2018 plan, but still predominantly identifies transmission rather than system requirements. The major improvement has been greater granularity in the analysis of REZs and the importance of storage in those scenarios.

# Draft Rules

In our submission to the Consultation Paper we took the following positions:

- Consistent with recommendations in the Vertigan Governance Review and the ACCC Retail Electricity Price Inquiry (albeit primarily in relation to economic regulation of distribution networks) experience in the NEM has shown that being too prescriptive in the rules about process can result in an ineffective framework.
- Adding compliance elements to the ISP development process unnecessarily complicates matters. Our view is that the requirement should merely be for the ISP to be 'accompanied by a statement' demonstrating how the forecasting and BCA guideline has been applied, and identifying how comments on the draft plan have been incorporated/addressed.'
- The best protection against the consequence of disputable input decisions is to increase the flexibility in modelling and to increase the range of sensitivity analyses undertaken. It is a pointless exercise obsessing about the values of input parameters absent a recognition of how sensitive the outcome is to the values chosen.
- We encouraged the ESB to consider the option of a Planning Panel modelled on the Reliability Panel to provide cross industry governance of the project.

We have one more principle we wish to add, which is an extension of the first principle above. To avoid all doubt where the Rules permit something to be done the Rules should also be clear that this permission does not exclude other possibilities. In legal drafting lists of powers or functions are frequently preceded by the phrase 'including, but not limited to, …' This drafting is important both for formal statutory interpretation but also for lay readers.

We note that the Draft Rules have not followed our suggestion of being principles based and have become quite detailed in parts. Overall, we feel this is to the detriment of the Draft Rules. In particular the Draft Rules tend to describe the Integrated System Plan as little more than a Transmission Plan that initiates the RIT-T process.

We are highly supportive of a process that facilitates the development of necessary transmission resources, but our objective is that the ISP fulfills all the expectations of it made by the *Future Security of the National Electricity Market Review*

This leads us to the following suggestions for improvement.

## The purpose of the ISP

Draft Cl 5.22.2 reads:

> ***Purpose of the ISP***
>
> *(a) The Integrated System Plan is a whole of system plan for the efficient development of the power system that achieves power*

*system needs for a planning horizon of at least 20 years for the long-term interests of the consumers of electricity.*

*(b) The purpose of the Integrated System Plan is to:*

*(1) trigger the regulatory investment test for transmission process for actionable ISP projects; and*

*(2) inform decisions in relation to ISP development opportunities.*

We fully support the first half of this definition and contend that it is the entirety of the ISP's purpose. The triggering of the RIT-T is not a **purpose** of the ISP, it is something that we are agreeing has occurred in relation to identified transmission projects included in the ISP.

We propose that sub clause (b) be deleted or that the following be substituted:

*(b) The purpose of the Integrated System Plan is to:*

*(1) inform decision making in relation to the development of the power system,*

*(2) identify critical sensitivities for the efficient development of the power system, and*

*(3) identify transmission {and distribution} projects that need to be completed to meet the near-term requirements of the power system consistent with these sensitivities, and*

*(4) identify non-network projects that need to be completed in the near term.*

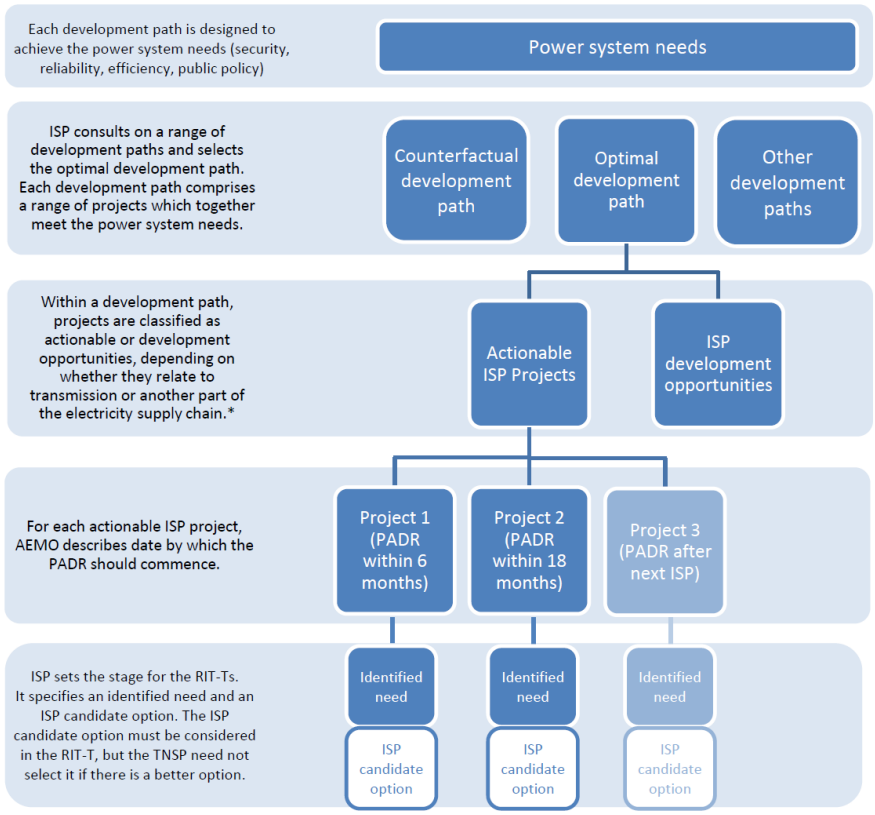
We have included in braces in the above definition 'and distribution' because we believe that future ISPs might need to place greater attention on how distribution networks develop, especially those that are supporting larger distribution connected distributed energy resources that are not 'behind the meter' – that is, are not co-located with a load.

In doing so we note that the 'power system' is defined in the NER as 'The electricity power system of the national grid including associated generation and transmission and **distribution** networks for the supply of electricity, operated as an integrated arrangement.' (emphasis added). While we also note that nothing in the proposed arrangements to make the ISP actionable has considered the possibility that the ISP should play a role in the RIT-D, it is a possible future development and we think it appropriate that this is flagged in the projects that can be identified in the ISP.

## Definitions - types of project.

The Draft Rules Paper provides (at Figure 1) the diagram below to explain the terminology.

**Figure 1 Overview of actionable ISP terminology**




* Transmission projects may include non-network options, as per the current RIT-T framework.

The Draft Rules include three definitions in cl 5.10.2 relating to projects, being:

> **ISP project** means an actionable ISP project or an ISP development opportunity.
>
> **actionable ISP project** means a project that relates to a transmission asset or *non-network option* the purpose of which is to address an *identified need* specified in an *Integrated System Plan* and which forms part of an optimal development path.
>
> **ISP development opportunity** means a development that does not involve a transmission asset or *non-network option* and includes distribution assets, *generation*, storage projects or demand side developments that are consistent with the efficient development of the *power system*.

However, it is clear from the diagram that the difference between actionable projects and development opportunities is really that they relate to

transmission and non-transmission projects respectively. More significantly all transmission projects wind up being classified as actionable.

These definitions seem to require the ISP to refer to all transmission projects as 'actionable' even when they are not required to progress to a PADR before the next ISP. This is not how 'actionable ISP project' was used by AEMO in the Draft 2020 ISP – projects like Project 3 in the diagram (e.g. Marinus) were not described as 'actionable.'

It is clear why 'actionable ISP projects' need to be identified as there are consequences for these projects in terms of the RIT-T process. Greater clarity would be provided by defining 'transmission projects' and then defining 'actionable transmission projects' as those that require the PADR to commence before the next ISP.

We also note that 'ISP development opportunities' (which in the 2020 Draft Plan are all REZs) may actually include transmission assets, and that the restriction of this definition to not include transmission should be excluded.

A search of the Draft Rules indicates that the term 'ISP development opportunity' performs little work in the remainder of the Rules. (It appears at 5.22.2(b)(2), 5.22.6(a)(5), 5.22.6(b)(1), 5.22.8(5)). The specific relationship between actionable ISP projects and ISP development opportunities is laid out in cl5.22.6 (Contents of the ISP).

> 5.22.6(a) An *Integrated System Plan* must:
>
> (1) identify a range of development paths;
>
> (2) for each development path, identify the group of projects that form part of the development path;
>
> (3) describe how each development path performs under any sensitivities *AEMO* considers reasonable;
>
> (4) identify the optimal development path which must be based on a quantitative assessment of the costs and benefits of various options across a range of scenarios, in accordance with Cost Benefit Analysis Guidelines;
>
> (5) for the optimal development path, identify the actionable ISP projects and ISP development opportunities;

In short, the range of development paths include 'projects', from those paths an optimal path is chosen and then of the projects that are included in that path two subsets are identified – one being actionable ISP projects and the other ISP development opportunities.

Cl5.22.6(b)(1) says the ISP **may** include relevant information about development opportunities. (Cl5.22.6(b)(2) also says the ISP may:

> *identify and provide information on the optimal location and features of areas located in the NEM participating jurisdictions where large scale clusters of renewable energy and/or storage can be efficiently developed from a whole of power system perspective;*

Most importantly nothing at all hinges on whether a project in the optimal development path is identified as an ISP development opportunity.

Consistent with our position that the Rules should not be unnecessarily prescriptive we suggest there is either:

1. no need for the concept of 'ISP development opportunity' and that the definition and requirement for projects to be assigned the label be deleted. This then means the definition of 'ISP project' would be unnecessary, or

2. the concept of 'ISP development opportunity' could be required to do more work. In that case the ISP would identify what they think is required to realise the development opportunity and who needs to do it. As an example the ISP has identified a number of Renewable Energy Zones and State Governments could be identified as responsible parties and through the ISP requested to advise AEMO in time for the next ISP the State Government's priorities for the development of the REZ's in that State and what policy instruments or financial incentives it proposes to make available to encourage development.

As we believe that the realisation of the development opportunities will frequently require other policy or financial support, we favour the second option.

## Definitions – identified need

As well, the definition of 'identified need' is proposed to be amended to incorporate investments identified in the ISP.:

> ***identified need***
>
> The objective a *Network Service Provider* or a group of *Network Service Providers* seeks to achieve by investing in the *network* in accordance with planning requirements under the *Rules* or an *Integrated System Plan*.

The definition of 'identified need' still doesn't quite meet the needs. At the point the project is included in the ISP it is AEMO that has the objective referred to in the definition of the 'identified need' not the NSP. It is also circular because the objective in accordance with the ISP is the actionable ISP project, but the definition of an actionable ISP project refers to the project meeting an identified need, which hasn't occurred until the ISP has included it.

An alternative drafting then could be:

> ***identified need***
>
> The objective to be achieved by investing in the *network* in accordance with planning requirements or Integrated System Planning under the *Rules*.

## Definitions – development path

The Draft Rules propose that **development path** means a set of projects in an *Integrated System Plan* that together address power system needs. This is an inadequate definition since it refers only to system needs at a point in time while Cl 5.22.2(a) describes the ISP as covering the development of the power system needs for a planning horizon of at least 20 years.

The definition of development path therefore needs to reference the planning horizon not just the system needs. This could be achieved by appending "for the planning horizon of the Integrated System Plan."

## Power system needs

### Technical considerations

Draft Cl 5.22.3 provides a description of the 'power system needs' though the drafting does not explicitly link the description to the use of the same phrase in Cl 5.22.2(a), nor has the term been italicised to identify it as a defined term (though it is included as a proposed new definition)

This is a specific case where we are concerned that an unnecessary degree of prescription has been applied. Firstly, the specific term 'power system needs' has been introduced without reflecting on the definition of 'power system.' 'Power system' is defined in Chapter 10 of the NER as:

> *The electricity power system of the national grid including associated generation and transmission and distribution networks for the supply of electricity, operated as an integrated arrangement.*

The *Integrating energy storage systems into the NEM* rule change request lodged by AEMO has not included any change to this definition to include storage.[12] Equally the power system includes scheduled and controllable loads. Given the important role storage is required to play in a system consisting of more variable renewable energy this needs to be updated.

The definition of 'power system needs' commences by simply cataloguing other requirements under the Rules. It is hard to understand how power system needs could be considered as not meeting these requirements. Equally it is hard to understand why these specific Rules requirements are regarded as more important than the National Electricity Objective, which reads in full:

> *National electricity objective*
> *The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to—*
> > *(a) price, quality, safety, reliability and security of supply of electricity; and*
> > *(b) the reliability, safety and security of the national electricity system*

[12] https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem

All the Rules included in the NER have been made on the basis that they contribute to the achievement of the NEO. The power system needs should refer to the NEO and we suggest the following:

> ***Power system needs***
>
> *The operation of the power system to*
> *(a) contribute to the achievement of the NEO, and*
> *(b) to fulfill the requirements of the Rules.*

We note that the Purpose of the ISP (Cl 5.22.2) already includes reference to the long-term interests of consumers of electricity. We believe that it is important that the power system needs are recognised as being only those necessary to contribute to achieving the NEO.

### Policy considerations

In defining the power system needs as well as the Rules requirements the Draft Rules have proposed (in Cl 5.22.3(b) that in determining power system needs AEMO may consider a policy where it has been sufficiently developed for AEMO to identify its impacts and one of five conditions are met.

We think this is a category error. While the items in Cl 5.22.3(a)(1)-(4) all relate to requirements of the system, the policy issues are ones that merely may 'impact on the system.' There are many factors that may impact on the system that aren't system needs – these include expected climatic conditions, levels of economic growth and technology trends.

We believe that the impact of policy beyond the NEO and Rules relates to what are feasible development paths rather than the needs that those paths are meeting. Hence the appropriate place for the Rules to empower or require AEMO to consider the impact on the system of policy issues is in the ISP content, not in determining the power system needs.

## Content of the Integrated System Plan

Cl 5.22.6(a) specifies content that the ISP must include, and (b) specifies content that the ISP may include.

### Policy considerations

As specified above we believe the provisions of Cl 5.22.3(b) more properly belong in the specification of the contents of the ISP, not the needs of the system. We note that proposed Cl 5.22.6(b)(3) also states that the ISP may:

> *include sensitivities showing the impacts of energy or environmental policies of a participating jurisdiction where AEMO has been requested to do so by that participating jurisdiction. These sensitivities are in addition to those sensitivities considered in clause 5.22.6(a)(3) and do not form part of any development path.*

These two propositions that are very detailed about when AEMO may include the consequences of policy either in the plan or in sensitivities suggests that these are the ONLY cases where AEMO can include policy options.

Consistent with our principles that the ISP be an independent, integrated whole-of-system plan, we believe it is important that AEMO is able to include any policy option that supports the achievement of the National Electricity Objective and promotes the long-term interests of consumers. In particular we note that the planning horizon that AEMO is working to (twenty years plus) is far longer than the electoral cycle and so future policy options considered are not pre-empting the decisions of current governments or parliaments.

In addition, we note that no other body has the resources and modelling capability to consider the impact of policy decisions. Consequently, we think it desirable that AEMO can be required to include sensitivities of policy options to inform the decision making process. Future policy is a significant factor in determining 'least regret' options for the power system.

Therefore, we propose that the Rules should be amended so that:

1. The current draft Cl 5.22.6(a)(1) should have added to it considerations that all development paths must or may meet. This would include the environmental or energy policies currently included in Cl 5.22.3(b).

2. The current draft Cl 5.22.6(b)(3) be moved to become Cl 5.22.6(a)(8) – the consequence of which is that AEMO must include sensitivities on policy options if requested by a jurisdiction, and

3. Replace Cl 5.22.6(b)(3) with:

   *include sensitivities showing the impacts of energy or environmental policies that AEMO reasonably believes would contribute to the achievement of the National Electricity Objective.*

### Development opportunities

If the concept of ISP development opportunity is retained then Cl 5.22.6(b)(1) should also be moved from the 'b list' to the 'a list' and be expanded as suggested above so that the ISP identifies the development opportunities and identifies who needs to take action to realise those opportunities and what information AEMO will require for the next ISP on those development opportunities.

## Consultation requirements

We note that in our submission, drawing on the origins of AEMO's national transmission planning function, we proposed the creation of an 'ISP Panel' similar to the Reliability Panel. The Draft Rules Paper notes that several stakeholders have made this suggestion, and that AEMO has agreed for future ISPs to form an advisory Panel to help it engage with stakeholders.

We welcome AEMO's agreement, however, consistent with our additional principle we suggest that the Rules should not be silent on the matter. To this end we propose that the Rules should include provisions that:

1. AEMO may convene one or more advisory panels to assist in engaging with stakeholders in the development of the ISP.

2. The terms of reference, membership and selection process are specified by AEMO in a Guideline (or other document).

3. AEMO is required to consult with relevant stakeholders and other market bodies in the development of that Guideline.

## Transitional provisions

The Draft Rules (Cl 11.xx.2) propose that the 2020 ISP will be deemed to be compliant with the requirements of the new Rules, and that the new RIT-T Rules will apply to projects identified in the 2020 ISP.

We support the intent of ensuring the earliest possible benefit of the new Rules, however the proposed process means that there are inadequate constraints and none of the safeguards inherent in the new Rules are in place.

We suggest that there is a role for the AER that need not excessively impede execution. The provision would be that the 2020 ISP can still be deemed to have been met, but that within one month of the publication of the 2020 ISP the AER may declare that an actionable ISP project in the 2020 plan will not be allowed to proceed under the new arrangements.

We fully expect that there will be no requirement for the AER to make such a declaration, we just think it is a prudent provision.

# Conclusion

Energy Consumers Australia strongly supports the development of national electricity system planning as represented by the Integrated System Plan as a replacement and extension of the planning that previously occurred through the National Transmission Network Development Plan.

We note that the planning function of AEMO is the only whole of system planning capability for the national energy system. We believe it is important that the concept of the ISP be developed to construct an independent, integrated, whole of system plan that not only informs electricity transmission requirements but also informs all energy policy development.

We trust that our observations and recommendations assist the ESB in finalising Rules that not only underpin the actionability of identified transmission needs but furthers the role of independent integrated system planning to provide resilience as the nation manages the energy transition.

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