



Part of Energy Queensland

20 November 2024

Mr Daniel Westerman  
Chief Executive Officer  
Australian Energy Market Operator  
Lodged online: [ISP@aemo.com.au](mailto:ISP@aemo.com.au)

Dear Mr Westerman,

### **Integrated System Plan (ISP) Methodology**

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex), both distribution network service providers (DNSPs) operating in Queensland, welcome the opportunity to provide a response to the Australian Energy Market Operator (AEMO) on its Issues Paper which is limited to matters AEMO must consider to determine revisions to the ISP Methodology.

We support AEMO's plans to broaden the scope of the ISP Methodology to incorporate distribution network capabilities and more accurate forecasting opportunities for consumer energy resources (CER) and other distributed energy resources, as it makes sense given:

- DNSPs' critical role in operating and maintaining the distribution network and their initiatives in promoting a greater uptake of renewable energy, which may not be fully accounted for in the ISP;
- the continuing considerable growth in installed rooftop solar; and
- the shortcomings in the current treatment of CER forecasts in the ISP.

We appreciate the ISP Methodology should have both complimentary and competing objectives including simplicity, transparency, accuracy, and robustness. However, this has led to the overly simplistic and inaccurate assumption, as alluded to by AEMO, that:

“...rooftop solar and other distributed solar can operate consistent with the solar resources that are forecast to occur, and that distribution networks will be sufficiently expanded to facilitate the forecast in each scenario”<sup>1</sup>.

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<sup>1</sup> [Integrated System Plan \(ISP\) Methodology Issues paper](#) - Standard consultation for the National Electricity Market, 23 October 2024, p23.

This is because the forecasting of CERs' grid exports is highly complex as installed capacities are subject to curtailments by DNSPs to safeguard the integrity of the distribution network and by estimates on the amount of consumers' self-consumption.

As part of its ISP Methodology consultation, we recommend AEMO leverage DNSPs' ongoing preparations for the first [Annual Information Orders](#) (AIO) data submissions, with the first data being available (covering the 2024-25 financial year) in late 2025. This will include export generation and curtailment data, as per the extract below<sup>2</sup>.

### DC03 - Network metrics | Export services

Metrics related to utilised and curtailed energy

#### 3.9.3 - UTILISATION AND CURTAILED ENERGY

TOTAL POTENTIAL GENERATION	Units	Volume
Total potential customer generation	KWh	
Potential customer generation - customers with smart meters	KWh	
Potential customer generation - customers without smart meters	KWh	
CONSUMER ENERGY RESOURCE CURTAILMENT		
Total curtailment	KWh	
Curtailment due to inverter voltage response	KWh	
Curtailment due to static export limits	KWh	
Curtailment due to dynamic export limits	KWh	
Curtailment directed for system security	KWh	
Other curtailment	KWh	

AEMO may find benefit in the granularity/ specifics of DNSP's AIO export services data and use this as a starting point for incorporation of distribution network capabilities and renewable energy resource forecasting opportunities into the ISP. This will also ensure the ISP Methodology is linked to a single verifiable data source.

Ergon Energy's and Energex's initiatives to support renewable grid exports include:

- the introduction of solar photovoltaic Dynamic Connections<sup>3</sup> which limit and respond to network conditions to enable more generation to be exported, more often;
- our [Local Network Battery Plan](#) aimed at maximising the benefits of rooftop solar and bolstering the distribution network during times of peak demand through the installation of utility-scale batteries at multiple sites across Queensland; and

<sup>2</sup> DNSP - Annual Order 2024-25 - Data submission workbook, Template 3.9 Export services. Australian Energy Regulator, 26/9/24.

<sup>3</sup> For more information see: [Ergon Energy's Dynamic Connections](#) and [Energex's Dynamic Connections](#).

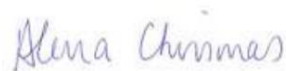
- our Local Renewable Energy Zone (LREZ) pilot projects<sup>4</sup> which will see the deployment of up to 8.4MW/18.8MWh of battery storage and support up to an additional 2.8MW of solar PV, and 0.9MW of demand management across each zone.

At the national level, the Commonwealth Government recently approved a [new standard](#) that will soon allow vehicle to grid charging in Australia. This supports the [Vehicle to Grid trial](#) currently being undertaken by the CSIRO and Essential Energy to trial bidirectional electricity flow, by enabling electric vehicle car batteries to capture excess rooftop solar generation to run households and export excess energy into the grid. A successful trial and continued significant growth in the uptake of electric vehicles will result in a step change in the contribution of CER exports to the grid.

We look forward to further engagement with AEMO on the next stage of the review of the ISP Methodology. In the meantime should AEMO wish to discuss any aspect of this submission, please contact either myself, or Lindsay Chin on 0459 642 052.

This submission does not contain confidential information and may be published.

Yours sincerely



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***Encl: Ergon Energy's and Energex's responses to consultation questions***

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<sup>4</sup> For more information see: [Ergon Energy's LREZ pilot project](#) and [Energex's LREZ pilot project](#).