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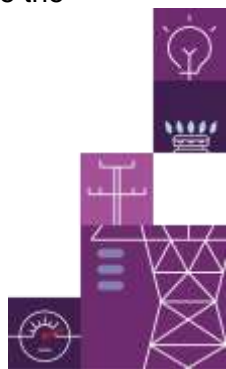
Dear Annie,

The future role of Directlink in the NEM

AEMO produces the Integrated System Plan (ISP) pursuant to section 49(2) of the National Electricity Law, which defines AEMO's functions as the National Transmission Planner. On 15 December 2023, we published the Draft 2024 ISP, which is a roadmap for the energy transition in the National Electricity Market (NEM) to reach a net zero economy by 2050 in line with government policies.

While AEMO has not conducted modelling to evaluate the benefits of Directlink, a key assumption in the ISP is the continued operation and maintenance of the existing NEM interconnectors – including Directlink. Based on our studies for the Draft 2024 ISP, we have observed ongoing value in maintaining the Directlink interconnector, including:

- **Resource firming** – As the proportion of variable renewable energy (VRE) increases across the NEM, Directlink will play a role in sharing firm generation and surplus resources between regions. Throughout the duration of our modelling horizon to 2050, including following a potential major upgrade to the Queensland to New South Wales interconnector (QNI), we project that the full capacity of Directlink will generally be utilised in every year.
- **Supporting peak demand** – At times of peak demand, our modelling shows that Directlink improves the capability to deliver a reliable supply of electricity to consumers. This role is particularly clear during periods of high demand, low VRE, network outages or generator outages, and continues following a potential QNI upgrade. Without Directlink, additional capital investment (e.g. battery storage) may be required to meet the NEM reliability standard.
- **Network controllability** – The dispatchability of Directlink is projected to improve network utilisation and reduce congestion by actively controlling flows parallel to QNI. Directlink can actively follow a precise dispatch target, which helps to balance flows on the network between Queensland and New South Wales.
- **Outage management** – During both planned and unplanned outages of other assets in this area of the NEM, Directlink improves the capability of the grid to provide consumers with reliable and secure electricity supply. Importantly, the presence of Directlink is expected to increase the duration of outage windows that are critically needed to maintain the surrounding network.



- **Voltage management** – The reactive plant at both ends of Directlink improve voltage management at Mullumbimby and Terranora.. This improves the resilience of the grid in these areas.

Importantly, our studies have found that QNI and Directlink will be able to simultaneously import or export near their combined maximum transfer levels during some conditions. Amongst other factors, the actual dispatch of Directlink and QNI will be optimised in combination with bids from local generation and storage.

If you have any questions, please don't hesitate to contact me at Eli.Pack@aemo.com.au.

Yours sincerely,



Eli Pack

Group Manager System Planning