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**Coordination of Generation and Transmission Investment: Discussion Paper (EPR0052)**

AGL Energy (AGL) welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC) Discussion Paper on the Coordination of Generation and Transmission Investment (the **Review**).

AGL is one of Australia's leading integrated energy companies and the largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy and provides energy solutions to over 3.5 million customers in New South Wales, Victoria, Queensland, Western Australia and South Australia.

Australia's electricity system is undergoing significant transformation at all levels, with a renewed focus on emissions reduction. This change is particularly evident at the transmission level, where intermittent renewable generation is increasingly replacing older thermal generation plant. Given the differences in nameplate capacity, technology and firmness of these synchronous generators and their replacement asynchronous solutions, AGL acknowledges that greater amounts of renewable generation are likely required into the future to maintain the same level of supply-side reliability in the National Electricity Market (NEM).

However, the uncoordinated introduction of carbon reduction and renewables policies without a long-term bipartisan commitment from Federal and State Governments has produced unintended consequences for wholesale energy markets, as incentives for development and price signals have shifted over time. Such uncertainty in policy direction has increased risks and costs for energy market participants, and ultimately consumers. While most new build generation assets are being built in areas close to existing transmission infrastructure, they are likely more useful in resource rich areas further away from populous centres.

We therefore believe that a coordinated, national approach to planning, for Australia's energy transformation is critical to delivering the best long-term outcomes for consumers. A well-designed National Energy Guarantee (NEG), in addition to well considered market reforms focused on system security, reliability and resilience, will greatly assist in delivering certainty for innovative wholesale energy investment, and reliable, affordable energy for consumers.

**Guiding Principles**

AGL believes the review of the transmission and generation frameworks should be guided by a coordinated approach between market bodies and directed by the following principles:



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- development of **customer centric** policy reforms will maximise the benefits at least cost;
  - where feasible, using existing **competitive markets** to deliver and value energy services to provide reliability through flexible and dispatchable generation;
  - establishing policy, regulatory and market frameworks that are **technology neutral**;
  - utilising **price signals** to encourage efficient investment and operational decisions;
  - ensuring regulatory frameworks secure **reliable supply** to all geographical regions by setting reliability standards;
  - **allocating risks** to parties that are best able to manage them;
  - introducing **regulation only where necessary** to address a market failure, including to ensure system safety, security and reliability;
  - ensuring an **equal playing field** where providers of competitive products and services, in markets, have the ability to compete openly on their merits.

Drawing on these principles will ensure that any future reforms to transmission and generation regulatory frameworks delivers predictive, transparent and co-ordinated changes. It will also enable market participants to make long-term decisions based on forward price signals that encourage infrastructure in areas that will maximise these investments, deliver greater efficiencies in markets and better outcomes for customers.

### **Addressing Network Congestion**

The need to coordinate generation and transmission investment revolves around the need to provide reliable, cost-efficient power supply to consumers. While congestion has been limited to regional and inter-regional areas, typically at times of peak demand, the current change in generation mix could increase this risk. AGL therefore believes that a review of network congestion is timely and considers that its scope should include a more detailed assessment of the options identified as viable by the AEMC, including a re-examination of optional firm access arrangements. The review should also consider how investment decisions are made, whether greater nodal pricing is necessary to facilitate regional expansion, and the role of regional reliability standards on transmission service providers (TNSPs).

### **Supporting Energy Storage**

AGL fundamentally supports the application of energy storage and the significant services it offers an integrated NEM. We note that a transmission grid connected battery can provide local network and market-wide balancing services and should therefore be encouraged as the NEM evolves. However, registration and financial treatment of energy storage devices introduces new complexities to the existing regulatory framework.

We believe that AEMO's interim registration and transmission use of service (TUOS) charging approach has merits which should be further explored. Specifically, AGL believes that all forms of connected energy storage must be treated in the same way to maintain simplicity in application, whilst also recognising that storage can



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be both a generation source and a market load. While we agree that loads should remain the vehicle for TUOS recovery, market participants should retain a choice in determining how their asset interacts in the NEM. Therefore where a storage device is registered and used as a load, it should pay TUOS in line with this neutrality principle, but any applicable TUOS charges should reflect the value that the storage device provides to the network. AEMO should be charged with monitoring the usage of the energy storage device as market operator, to ensure that it operates in line with its registration. AGL believes that approval of all TUOS charges should be conducted by the Australian Energy Regulator via the regulatory determination process.

In the case of hybrid storage solutions linked to intermittent generation, we encourage the AEMC to examine whether sufficient merits exist to warrant the creation of an additional or sub-category of registration is required, to allow market participants to utilise their entire facility as a scheduled generator. In theory, this would enable generators to provide the benefits of storage to address network issues, whilst offsetting any applicable TUOS charge when absorbing excess load.

### **Renewable Energy Zones**

AGL values AEMO's Integrated System Plan (ISP) as a guidance document that examines the interconnected NEM and, to the extent that new investment is required, ways to improve the efficient development and connection of Renewable Energy Zones (REZ). We believe that the ISP will play an important role in highlighting possible investment options to generators and transmission businesses for further consideration. However, the ISP should not impose a central planned view on the market. Rather, this investment decision should remain with those that are able best able and incentivised to manage them.

AGL also in-principally support the concept of clustered intermittent generation within designated Renewable Energy Zones (REZs) as an integral way of unlocking the value of these assets and meeting Australia's international climate change obligations. However, further consideration and a cautious approach is necessary to ensure the design, development and regulatory frameworks governing REZ deliver net benefit to consumers, whilst appropriately supporting the REZ investments.

It is likely that additional transmission assets and possibly new interconnectors will be necessary to connect urban demand regions with regionally-based but resource-rich REZs. These regulated assets are costly, have long operating lives, and carry significant investment risk, which if not appropriately managed could result in a network overbuild and/or a stranded assets being unnecessarily charged to consumers. It is therefore appropriate, in the current regulatory environment that proposed investments in transmission assets are comprehensively assessed<sup>1</sup>. This will ensure that long term costs are not locked into the regulatory asset base of transmission providers, to address issues that may be short term in nature or otherwise solved by more efficient market solutions.

AGL believes that while improvements are necessary to the Regulatory Investment Test for Transmission (RIT-T), it remains, in its current form, the best mechanism to protect consumers and balance out

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<sup>1</sup> Against other credible network or non-network alternatives such as local generation, storage or demand management, and other new emerging technologies against other credible network or non-network alternatives such as local generation, storage or demand management, and other new emerging technologies.



investment risks. Similarly, existing transmission infrastructure should be fully utilised before any new transmission investment is considered and taken through the RIT-T process.

If you have any queries about the submission, please contact Dan Mascarenhas on (03) 8633 7874 or [DMascare@agl.com.au](mailto:DMascare@agl.com.au).

Yours sincerely,

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