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Integrating price-responsive resources into the NEM rule change – ERC0352

Submission via AEMC website

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AGL Response to Integrating price-responsive resources into the NEM rule change draft decision

AGL Energy (**AGL**) welcomes the opportunity to comment on the AEMC Integrating price-responsive resources into the NEM rule change draft decision (**draft decision**).

About AGL

Proudly Australian for more than 185 years, AGL supplies around 4.1 million energy services. AGL operates Australia's largest private electricity generation portfolio within the National Electricity Market (NEM), comprising coal and gas-fired generation, renewable energy sources such as wind, hydro and solar, batteries and other firming technology, and gas production and storage assets. We are building on our history as one of Australia's leading private investors in renewable energy to now lead the business of transition to a lower emissions, affordable and smart energy future in line with the goals of our Climate Transition Action Plan.

Flexible energy resources are key to an affordable, reliable & sustainable energy future

AGL is making a significant investment in flexibility and has been making strong progress against our grid-scale battery and distributed energy resources (DER) targets. Customer load flexibility is a significant opportunity that makes use of existing assets in homes and businesses. Electric hot water system orchestration represents a significant flexible load throughout the NEM.

In South Australia, we have partnered with smart meter supplier PLUS ES in a project to test whether dynamically managing customers' hot water systems through smart meters can support grid stability and lower energy costs for up to 20,000 customers.

We have also expanded our demand flexibility pipeline through new partnerships with distribution network service providers in New South Wales and other leading metering providers. AGL is also helping business customers with flexible load response as part of the ARENA Load Flex trial.

We are actively expanding decentralised assets across all regions in the NEM. As of FY24 AGL had 1.25 GW of decentralised assets under orchestration, with a FY27 target of 1.6 GW.

AGL supports the integration of price responsive resources into the NEM

We are broadly supportive of the draft rule's intent to more effectively integrate consumer energy resources (CER), and other unscheduled price-responsive resources (UPRR), into the electricity system for the benefit of all energy users. This rule change consultation process further highlights the underlying challenges of integrating CER and UPRR into a market and operational framework designed for market generators exclusively focused on market dispatch.

There is a risk that the rule will not meaningfully resolve the challenges it originally sought to address without revisions to its design. The key reasons for this are:



- Participation in dispatch mode may be limited as most of the benefits will accrue to the market rather than to participants (as acknowledged by the AEMC).
- Participation in dispatch mode may be affected by factors outside participant control e.g. distribution network limits.
- There is no mechanism to improve the visibility of UPRR outside of dispatch mode included in the draft decision, and the new monitoring and reporting framework does not directly address this gap.

To address this, our submission proposes changes to dispatch mode requirements to reduce the burden and costs of participation and enhancements to the proposed monitoring and reporting framework.

Designing dispatch mode with flexibility at its core

The draft rule includes onerous requirements that will be difficult to meet for many resource types. The AEMC's draft decision assumes that as technology matures, and the costs to participate are lowered, more resources will eventually join dispatch mode. However, the AEMC could encourage earlier participation by providing a higher level of flexibility for VSRs in dispatch mode for an initial period. Whilst a flexible approach must be carefully managed to prevent unintended negative effects on system stability and market integrity, this initial stage of dispatchable CER and UPRR capacity enables a greater flexibility in the operational and compliance requirements due to the limited impact on the market and the system. When the VSR capacity becomes material to the market, this flexibility could then be reduced.

- **Minimum ramp rates:** Significant effort will be required to conform with minimum ramp rates for a range of resource types. Our view is that the flexibility in the draft Rules (where conformance must be met at an aggregate VSR level) is insufficient to address this challenge. We encourage the AEMC to consider ways to increase flexibility in the rules. For example, by instituting a transitional period where VSRPs may test and improve their ramping capabilities. While we acknowledge the temporary market impacts of this option, we also consider this added flexibility would support participation thus improving the overall visibility of UPRR.

In dispatch mode, the ability to meet fleet-wide ramp rates and power target requirements will vary depending on the asset class. The AEMC should also consider the additional factors outlined below:

- For demand response with diesel gensets, conventional ramp rate requirements will be very challenging and may require a different operational constraint, such as an equivalent to a fast start inflexibility profile.
 - For residential solar-battery systems where the battery is the controllable device, this will vary substantially in accordance with the underlying vendor and how much investment is needed in the software system controlling the assets.
 - Some battery-cloud vendors have much higher quality API and control systems and are easier to execute complex fleet-wide power targets and ramp rates for Dispatch Mode.
 - Others have less advanced API systems which need a bigger investment in software to control the assets to meet Dispatch Mode requirements.
 - For solar inverters there are varying capabilities to control these devices, generally the technology is much further behind when compared with battery systems used in VPPs and broader DER.
- **Temporary deactivation and hibernation:** We support including both temporary deactivation and hibernation in the Rules. However, our view is that temporary deactivation period should be allowed for up to 31 days and hibernation should begin from 32 days and up to 18 months. We can foresee circumstances where 7 days would not be sufficient time to reinstate a VSR back into active mode (e.g., during extended periods of public holidays) but full hibernation is not required. Furthermore, we consider the proposed requirement where participants must submit a hibernation request to AEMO to be unnecessarily complex. An inactive VSR could be deemed to be a hibernated VSR from 32



days. The VSRP could submit a resumption request when it seeks to re-enter dispatch mode. If no action is taken, the VSR would be deregistered after 18 months.

- **Distribution network limits:** We foresee a material risk of conflict between network limits and dispatch mode, particularly if networks were to have the ability to override a VSRPs' instruction. Our view is that the Rules, and in turn AEMO guidelines, should clarify the interface between VSR market dispatch and network limits. This should also include flexibility to ensure market participants are not held accountable for non-conformance under certain circumstances – e.g., where a DNSP changes a network limit with short notice and the market participant could not reasonably foresee the impact of this change to its operations, or where the DNSP overrides the VSRPs' instructions without prior knowledge from the VSRP.
- **Participation threshold:** We support maintaining the minimum incremental bid quantity of 1 MW as specified in the existing bidding process. While not specified in the Rules, our view is that resources should be able to be registered as VSRs if they have a minimum nameplate capacity of 1 MW.

We support other flexibility features in the draft Rule including exempting VSRs from mandatory primary frequency control response. Having reviewed AEMO's draft High Level Impact Assessment, we also support bringing forward the commencement of the time-limited incentive scheme as this would enable market participants more time to build up their capabilities to meet the dispatch requirements.

Strengthening the proposed monitoring and reporting framework

We support the general principle of ensuring there is strong evidence of the impacts of UPRR in the market before imposing complex reporting obligations on participants. However, our view is that without some version of 'visibility mode', the final rule is unlikely to lead to a material positive impact on market outcomes. This may be gradually addressed by the AER and AEMO further investigating the system and market impacts, exploring improvements to market forecasting of CER/UPRR, and further consideration of forecasting information gaps. However, this rule change process may also demonstrate that the scope of the current energy laws is unable to comprehensively capture CER/UPRR operations when it is not participating in central dispatch. If this is the case, then the AEMC should consider making broader recommendations so that they may be addressed through the National CER Roadmap.

If the AEMC is not satisfied there is enough evidence to pursue a visibility market mechanism, then we encourage the AEMC to consider the following changes to its monitoring and reporting framework.

- **DER Register:** AGL and other retailers currently have limited access to the DER Register. We strongly encourage the AEMC to consider ways in which VSRPs could gain access to their customer's DER Register information for the purpose of managing their portfolios. AGL is concerned that there will be discrepancies within the information available to AEMO via the DER Register and the information available to retailers, leading to reconciliation issues.
- **Compulsory information gathering:** The current rules have not provided AEMO any powers to gather additional information from participants. The AEMC could consider compulsory reporting requirements where portfolios exceed a certain threshold – e.g., a VPP portfolio above 30 MW within a given region. Many UPRR have existing reporting capabilities which could be leveraged without unduly changing the system and processes already in place.

If you have any queries about this submission, please contact Andrea Espinosa on 0422 165 705 or aespinosa2@agl.com.au.

Yours sincerely,



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