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Response to Interoperability Policy, Stage 1: Inverter based resources - Consultation Paper

AGL Energy (**AGL**) welcomes the opportunity to respond to the Energy Security Board's (**ESB**) Consultation Paper on its Interoperability Policy, Stage 1: Inverter based resources (**Consultation Paper**).

AGL is one of Australia's leading integrated energy companies and one of the largest ASX listed owner, operator, and developer of renewable generation. AGL is also a significant retailer of energy and telecommunications with 4.5 million customer accounts across Australia. AGL supports an energy market system that empowers consumers to take control of their energy consumption and costs.

We are a market leader in the development of innovative products and services that enable consumers to make informed decisions on how and when to use their distributed energy resource (**DER**) assets to optimise their energy load profile and better manage their energy costs. Our current DER product and services include our leading-edge Virtual Power Plant (**VPP**)[1], Peak Energy Rewards demand response program[2], retail offer for electric vehicle (**EV**) owners[3] and EV subscription service[4]. Through our EV Orchestration Trial,[5] we are seeking to understand how EVs could help the wider energy system by 'orchestrating' vehicle charging through smart chargers, Vehicle to Grid chargers and API technology. Our new Solar Grid Saver offer[6] rewards customer for participating in solar orchestration, pausing their solar exports in periods of minimum operational demand whilst enabling them to continue to generate and use their solar power.

Strategic direction

AGL supports the ESB's strategic objective to develop a policy framework that can ensure DER technical standards work in customers' best interests. We also agree with the ESB's guiding principles. As we observed in the context of the ESB's Post-2025 Market Design Project,[7] promoting interoperability through technical standards will be a key enabler for the optimisation of DER across Australia's energy markets.

[1] For further information regarding AGL's Virtual Power Plant, currently available to customers in New South Wales, Queensland, South Australia and Victoria please refer to https://www.agl.com.au/solar-renewables/solar-energy/bring-your-own-battery?cide=semr&gclid=EAIaIQobChMIicjKmKuP5wIVyjUrCh2eXwvVEAAYASAAEgLZRPD_BwE&gclsrc=aw.ds.
[2] See further AGL Peak Energy Rewards, available at https://www.agl.com.au/newcampaigns/peakenergyrewards.
[3] See further, AGL EV Plan, available at https://www.agl.com.au/electric-vehicles.
[4] See further, AGL Electric Vehicle Subscription, available at https://www.agl.com.au/get-connected/electric-vehicles/ev-subscription.
[5] See further, AGL Electric Vehicle Orchestration Trial, available at https://arena.gov.au/projects/agl-electric-vehicle-orchestrationtrial/.
[6] See further, AGL Solar Grid Saver offer, available at https://discover.agl.com.au/energy/helping-to-maximise-your-solar-savings/; Maximising solar to support Australia's evolving grid (Part 1), available at https://www.agl.com.au/thehub/articles/2021/11/maximising-solar-to-support-australias-evolving-grid; Maximising solar to support Australia's evolving grid (Part 2), available at https://www.agl.com.au/thehub/articles/2021/11/maximising-solar-to-support-australias-evolving-grid-part-2.
[7] See further, AGL Submission on the Energy Security Board's Post 2025 Market Design Options Paper (10 June 2021), available at https://www.agl.com.au/thehub/articles/2021/06/agls-submission-on-the-energy-security-boards-post-2025-market-design-options-paper.

Nevertheless, substantial work remains to establish a national technical standards framework that:

- Promotes customer choice and enable customer participation by aligning with internationally accepted standards, where consistent with Australian energy market structures;
- Supports portability to the extent that the benefits outweigh the costs;
- Enables access to secure and open IT platforms as well as technical DER device capabilities; and
- Aligns with the policy direction towards a market-based framework to allow customers to engage and share in DER value.

While we appreciate the work undertaken to date in the development of the Australian implementation guide for IEEE 2030.5 (CSIP-AUS), we remain concerned that the use cases initially implemented in CSIP-AUS focus on network outcomes without sufficient attention given to aggregator use cases that could support more cost-effective outcomes based on the structure of Australia's energy market system. It will be critical that the standard applied in Australia supports aggregation use cases at the NMI level to facilitate DER co-optimisation across multiple value streams.

The technical standards framework should also be flexibly designed to accommodate alternative communications pathways in the longer-term, as the market for DER services evolves, including to and from individual devices. However, in this context it will remain important that the framework:

- Supports technical service delivery to and from devices;
- Aligns with internationally accepted standards; and
- Provides accurate measurement to support financial transactions between multiple parties in the energy supply chain and ensures consumer confidence.

To ensure alignment with the ESB's guiding principles, we would recommend the policy framework more carefully consider the breadth of not only network, but also customer and market use cases to better facilitate cost-effective outcomes for customers.

Assessment framework

AGL recommends defining two additional stand-alone features sets, being:

1. Customers; and
2. Market aggregators.

While the feature sets articulated cover various network and system considerations, they do not sufficiently contemplate customer and market/aggregator use cases to enable customers to maximise the value of their investment through participation in orchestration services. Noting that customers are investing their capital in DER assets and therefore maximising their return on this investment whilst maintaining system security should be the over-arching objective of policy and market development arrangements.

We also recommend the described features be revised to ensure customer use cases are not inadvertently conflated with network ones, that may otherwise impact customer utility and erode the behind-the-meter contestability regulatory framework that is intended to support customer choice.

By way of example, we do not consider it appropriate that grid support DER functions include charge and discharge rate limits. While we appreciate this is intended to contemplate EV charging, we do not consider

that distribution networks have sufficiently demonstrated the need to constrain household load or proven any strong parallel between EV charging and DER such as solar and batteries. We also note that vehicle to grid (V2G) application is still in a demonstration phase and therefore consider we wait until we obtain insights from these demonstrations to fully inform the regulatory approach. Introducing dynamic connections for EV customers risks imposing additional compliance costs to consumers seeking to install an EV charger without any compensation or demonstrable benefit.

We support the proposed assessment criteria that are intended to support the assessment of individual technical features. Nevertheless, we recommend the policy framework clearly articulate that the criteria will be balanced based on a cost-benefit analysis to ensure customer and market outcomes are provided with sufficient weight against system security and reliability considerations.

Applicability

AGL considers it important to provide the market with sufficient notice of any new technical standards requirements, to enable compliance and mitigate any impact to consumers who have already investment in DER. We consider that a minimum of 12 months' notice is appropriate in the context of new connected assets. We also recommend that grandfathering provisions typically apply to assets that are already connected, in accordance with the general warranty period timeframes for individual devices and/or requiring compliance with new technical standards only when DER assets are upgraded.

Compliance

AGL supports the ESB's proposed approach to setting a target date for compliance with defined feature sets by reference to the readiness of the industry to adopt and leverage new interoperability standards. We appreciate that timeframes will vary for different feature sets and support an approach that is sequenced, and can evolve over time, having regard to industry readiness and jurisdictional needs.

Nevertheless, we would also recommend the ESB define specific timeframes for all feature sets to ensure some use cases are not neglected or prioritised over others based on specific industry segment priorities. As noted above, the development of the CSIP-AUS illustrates that in the absence of sufficient direction and resourcing, network outcomes risk being prioritised over consumer and market use cases that otherwise support more cost-effective outcomes in the management of Australia's energy market system.

Related decisions

With respect to systems and processes that could support customers easily switching providers, we would recommend the ESB and energy market bodies consider the customer churn process in relation to each market participant category, particularly the new Integrated Resource Provider category, to ensure that customers have an ability to churn and that a competitive market is maintained.

We also consider that customers' ability to churn should in part be mediated through a fit-for-purpose consumer protections and retail authorisation framework for DER services providers that ensures customers are provided with a level of consistency on fundamentals irrespective of the energy service or product provider.

Beyond the matters discussed in the Consultation Paper, we would recommend the policy framework more clearly articulate role and responsibilities in the implementation of technical standards, drawing direct linkages with the feature sets articulated.

Costs

In assessing the compliance burden, we consider it important that network integration costs are kept to a minimum and that customers are afforded a high level of flexibility to integrate with a broader range of competitive market orchestration service providers.

In our recent engagement with distribution networks on the implementation of dynamic export limits, we have observed that these arrangements risk imposing a disproportionate compliance burden on aggregators and will potentially result in substantial integration costs and a sub-optimal customer experience. While we appreciate that CSIP-AUS entails a communications primacy architecture that requires all communications be mediated through a single communications party, we believe there is a need to consider alternative approaches that would ensure compliance by individual DER assets whilst also providing visibility of distribution networks' dynamic constraints to customers' contracted aggregators, in order to enable customers to maximise the value of their investment through participation in orchestration services.

Should you have any questions in relation to this submission, please contact Kurt Winter, Regulatory Strategy Manager, on 03 8633 7204 or KWinter@agl.com.au.

Yours sincerely

Elizabeth Molyneux

GM Policy and Markets Regulation