9 December 2022

Mark Feather
General Manager, Strategic Energy Policy and Energy Systems Innovation
Australian Energy Regulator
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Canberra ACT 2601

Lodged electronically: NetworkPolicy@aer.gov.au.

Dear Mr Feather,

RE: Submission to AER Flexible Export Limits, Issues paper

Origin Energy (Origin) appreciates the opportunity to provide a response to the Australian Energy Regulator's (AER) Review of regulatory framework for flexible export limit implementation, issues paper.

We support the AER's review of the associated regulatory and governance framework to ensure that the development of flexible export limits facilitates positive consumer outcomes. As the uptake of consumer energy resources (CER) accelerates it is essential that the framework supports the Energy Security Board's (ESB) CER implementation plan. Flexible rather than fixed export limits can provide benefits for both consumers and distribution network service providers. Flexible export limits enable higher levels of energy exports from customers' CER systems by allowing higher export limits when there is more hosting capacity on the local network as well as helping to manage distribution network congestion.

We have developed our own proprietary virtual power plant (VPP) platform to enable the coordination of behind the meter distributed energy resources (DER)[1]. Assets connected to the VPP have grown from 98 MW to 258 MW over the past 18 months, including an increasing variety of distributed energy and Internet of Things (IoT) devices. These devices include hot water systems, solar, batteries, air conditioners, EVs and various industrial assets, which are aggregated, controlled and dispatched in response to market and portfolio positions, creating value for both Origin and customers through a lower cost of energy. Origin views the integration of CER, including solar systems, as a key long-term reform.

We support the development of a customer centric, competitive market approach to CER integration, that focuses on incentives rather than mandating rules. This should be flexible and support a range of technologies to allow customer choice and promote the development of multiple products and services. We are pleased that the issues paper raises some customer related issues, but we suggest that there needs to be a stronger focus of customer considerations.

Ideally, rules and standards to promote the dynamic control of solar systems and other CER should be nationally consistent. We suggest that there is a strong role for market bodies such as the AEMC, AER and AEMO to develop a national framework, in consultation with other key stakeholders such as state governments and networks. We are concerned that Australian consumers may suffer unnecessary costs and confusion if individual jurisdictions or networks adopt disparate policy settings.

Given the development of dynamic operating envelopes (DOE) is in the formative stage, we agree with the principle-based approach proposed by the AER for establishing the regulatory and governance framework. This approach ensures that DOE's can develop over time as CER uptake continues and innovation in DOE design is not unnecessarily stifled. It also means that developments from concurrent workstreams can be

[1] We note the ESB's new terminology of Customer Energy Resources (CER).

more readily incorporated in the framework as required. However, there are a range of longer-term issues that the issues paper touches on that are important, and we have provided initial comment on some of these as well.

Origin's response to specific issues identified in the issues paper are set out below.

Implementation of flexible export limits

Origin agrees that that the primary use case for the implementation of flexible export limits is the efficient and increased utilisation of the shared hosting capacity on the distribution network to enable consumers to obtain the benefits of exporting their energy resources to the grid.

Immediate actions

The AER identifies gaps in the existing regulatory framework and a range of immediate actions that can be undertaken to establish the broad parameters to support the efficient implementation of flexible export limits. Origin considers that the AER have appropriately identified the key components of the regulatory framework requiring immediate attention.

Capacity allocation principles

In terms of capacity allocation, the AER propose the application of principles derived from the Distributed Energy Integration Program (DEIP) DOE outcomes report. We consider a principle-based approach to be appropriate at this early stage of export limit development. This allows for broad parameters to be agreed, whilst providing for the natural evolution of capacity considerations as distribution network service providers (DNSPs) and customers gain more experience. We consider that the established principles should be both binding on DNSPs and auditable. This provides a degree of certainty to both DNSPs and customers, especially given the potential for customer reticence to accept export limits in the initial stages.

Capacity allocation methodology

Origin agrees that DNSPs should be afforded the flexibility to progressively develop their capacity allocation methodologies rather than apply a prescriptive approach. A flexible approach accommodates the individual circumstances of DNSPs as the export market continues to develop. The methodology adopted should be incorporated in the DNSP's CER integration strategy and be both clear and transparent with a requirement for these to be published and ultimately approved by the AER. This will assist customer understanding of export limits and help to build customer trust. We anticipate that methodologies will be refined over time and will converge to a core set of principles, at which time the AER may choose to apply a more prescriptive approach toward national harmonisation.

Consumer participation

Origin supports the retention of static export limits for the medium-term, with customers provided the option to opt-in to flexible export limits where available. We agree that consumers will likely be hesitant of arrangements that involve the perception of some external control of their devices and that consumer trust will need to be developed over time. The retention of static export limits will provide consumers a degree of certainty and allow consumers to choose to enter into flexible export limit schemes at their discretion. Adopting an opt-in provision for flexible export limits will also encourage DNSPs to provide customers with sufficient information to make an informed decision and a compelling case to enter into flexible arrangements.

Realising the full network (congestion) and consumer benefits associated with flexible export limits requires widespread uptake of flexible export limit schemes. In order to achieve this, we propose that over time flexible exports limits become the default position (rather than opt-in). We note that the South Australian Government has introduced regulations requiring all new solar systems to be capable of remotely updating their export limits with the intention of moving to dynamic controls by mid-2023.

However, if the implementation of dynamic controls is too slow, it may place a greater emphasis on the use of "emergency backstop" measures, which are currently in place in South Australia and about to be

introduced in Queensland. These are very much viewed as last resort policies but may become more important as solar penetration continues to increase. Therefore, it would be practical to start incentivising customers now, to make the switch towards some forms of dynamic limits.

Governance of traders and consumer energy resources

As the export services market develops, the role of traders will also expand. Traders are expected to provide a key role in the development of new and innovative service offerings, adding to the customer experience and enhancing consumer outcomes from CER. It is critical that the roles and responsibilities of traders are clearly articulated in the framework and that traders are not disadvantaged in any way from participating in the market.

Connection agreement

Origin agrees with the AER that terms and conditions, as well as performance expectations for flexible export limits for both the consumer and DNSP should be set out within the current connection agreement framework. This provides transparency for participants. We consider the AER's proposed rights and obligations to be reasonable and would expect these to be refined over time as the export market develops.

Notification period for a dynamic limit

Origin agrees that the provision of accurate and timely export limit forecasts is critical to ensure efficient market participation and improved consumer outcomes. We acknowledge concurrent projects such as the ESB's Interoperability workstream and AEMO Scheduled Lite workstream are expected to address these and related issues and agree that awaiting the outcome of these projects is prudent before making final decisions.

However, we note that the issues paper suggests that information provided a day ahead would provide a useful starting point. We agree and suggest that this AER consultation and other related reviews should consider this issue in more detail. Over time, as a greater volume of solar systems and other CER becomes dynamically controlled, it may be useful to move to more granular periods of notice. In the longer term, we see a market developing for remotely controlled CER services – networks could provide advance notice over different time periods for the volumes required and traders could then bid into this market. Clear notice and market transparency should lead to reduced costs in the electricity system overall.

Leveraging existing workstreams

The AER note that there are a range of workstreams and guidelines being undertaken through the CER Implementation Plan and other related programs that the AER can leverage to inform the development of flexible export limits or be utilised in the regulatory framework.

Monitoring export limit performance and information provision

We consider consistent reporting and monitoring of export limits to be a critical issue. Origin is supportive of greater transparency of DNSPs' export service performance, including flexible export data and encourage the movement toward a nationally consistent approach. This will facilitate an assessment of comparative performance of DNSPs.

Device capability to respond to flexible export limits

Optimising the benefits of CER requires that consumer devices are compatible with agreed communication protocols. We support current work to examine the potential application of CSIP-Aus for consumer devices in the NEM. We are concerned that Australian consumers may suffer unnecessary costs and confusion if individual jurisdictions or networks adopt disparate policy settings.

Interval length

In the current development stage, Origin agrees that DNSPs are generally best placed to determine the interval length of flexible export limit operation. However, to ensure maximum benefit from CER, we expect an agreed nationally consistent approach to be developed over time.

We note that the issues paper suggests an interval length of 5 minutes, to align with the newly introduced 5-minute settlement. However, especially in earlier stages it may be more practical to start with a longer interval such as an hour. This would be also be easier for customers to understand.

Demonstrating investment need

We agree with the AER that there is sufficient guidance for DNSPs to facilitate the development of their investment proposals within the existing regulatory framework.

Consumer protections

Origin agrees it is important that consumer protection frameworks include specific references to flexible export limits to address any consumer protection issues. We note the current AER and AEMC reviews are expected to address consumer protection issues and consider it appropriate to await the outcome of these reviews.

Data protection and privacy

In relation to maintaining customer privacy, existing ring-fencing arrangements are likely to be adequate at this stage, but we suggest continuous monitoring to ensure there are no situations where customer rights are put at risk. One area that will require continuous monitoring is how networks interact with distributed customer assets, some of which may be behind the meter. It may be beneficial for networks to have clearly defined boundaries which stop at the connection point to a premises.

Consumer understanding and interest

Clear and transparent consumer information is critical to the uptake and acceptance of flexible export limits. Whilst the ESB Customer Insights Collaboration is a good start, we suggest further work is required in this area to identify potential issues associated with customer uptake of export limit schemes.

Integration with export pricing

Market-based solutions, where customers are rewarded for reducing export (increasing load, and/or reducing export) in response to network tariffs, should be supported.

We suggest that AER and other market bodies should focus on a wholistic approach to CER integration which includes dynamic export controls, demand shifting, enabling technologies, tariff structures and storage. How these are implemented, including the impacts on customers, will be important. We support policies which provide incentives for customers to change their demand profile, rather than mandated rules.

Compliance and enforcement of technical standards

We acknowledge the AEMC review of DER technical standards in the NEM is considering the roles and responsibilities in the context of compliance with technical standards. Compliance and enforcement of technical standards is crucial in building confidence in new markets and consumer trust.

Managing dynamic controls through inverters or connection points requires compliance with technical standards that will support communication between DNSP, trader, connection point and device. For this reason, a continuing and urgent focus on delivering compliance of devices is critical to facilitating a modern approach to distributed energy resources.

Currently, there is no one single body that has oversight of all technical standards, the development of new standards, the consistent application and interpretation of standards and the compliance in the field with standards. It is essential that a new independent national body have responsibility for the interpretation, compliance, and enforcement of standards to give industry, installers and customers the confidence to invest.

If you have any questions regarding this submission, please contact Gary Davies in the first instance at [redacted].

Yours sincerely

[redacted]

Sean Greenup
Group Manager Regulatory Policy
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