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Lisa Shrimpton
Director
AEMC

Submitted via AEMC website

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Dear Lisa

RE: Unlocking CER benefits through flexible trading – directions paper

Thank you for the opportunity to provide feedback on the *Unlocking CER benefits through flexible trading* directions paper.

Enel X operates Australia's largest virtual power plant.[1] We work with commercial and industrial energy users to develop demand-side flexibility and offer it into the National Electricity Market's energy and ancillary services markets, the reliability and emergency reserve trader mechanism, and to network businesses.

This submission sets out our feedback on the directions paper. In summary:

- We strongly support the proposal to introduce secondary settlement points and allow large customers to engage more than one energy service provider. While there are some implementation details to work through, we consider the overall approach will provide significant benefits to customers and enable them to extract greater value from their flexible resources through improved competition for flexibility services.
- However, we do not consider facilitating flexible trading relationships to be the solution to greater demand side participation (DSP) in the NEM. While it will reduce some regulatory barriers, it will not in itself, drive significantly greater levels of DSP. Removing barriers to participation in the wholesale demand response mechanism (WDRM) is more likely to enable greater levels of DSP, whilst also providing AEMO with visibility of these resources.
- We encourage the AEMC to implement this rule change quickly to allow customers to unlock the value of their CER. Consistent with AEMO's rule change request, our view is that implementation should not be delayed while other potential rule changes, such as *Integrating price-responsive resources* into the NEM, are considered.

We look forward to working with the AEMC on the detailed implementation of these new arrangements to ensure that the new framework is fit for purpose and will ultimately deliver value for customers. If you have any questions or would like to discuss this submission further, please contact me.

Regards

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[1] Per AEMO Registrations

Overview

Enel X supports the AEMC's approach to dividing the rule change into three areas and considering small and large customers separately. While the benefits to large customers are clear, allowing small customers to choose from multiple service providers is more complex due to the need to address consumer protection issues. It is appropriate to progress the framework for large customers while further consideration is given to how small customers can best access CER value.

For large customers, Enel X supports AEMO's proposed approach to facilitate the installation of a secondary, market-facing settlement point and enable third parties (including energy service providers other than retailers) to operate at that settlement point. We consider the enablement of third party providers to be the key benefit of this rule change for large customers. While separating out flexible and non-flexible load is a necessary requirement for customers to extract value from CER, it is not sufficient in and of itself. The next step of enabling third parties to provide energy services at the secondary settlement point will promote greater competition, increasing the range of services available to customers and delivering them greater value.

Enel X sees a range of use cases where these arrangements could be of benefit by providing value to customers and adding resources to the market, including:

- Making use of backup generation that would otherwise only run during a blackout to supply the customer's load.
- Allowing consumers to optimise use of their Battery Energy Storage System (BESS) and at the same time provide services to DNSPs and the market by charging or discharging at times of network or system stress.
- Facilitating use of other individual flexible assets to provide valuable services to the market, and allow customers to access additional revenue streams.

We provide more detail on these potential use cases in a confidential attachment.

Using demand response to provide FCAS is already well established and we do not consider AEMO's proposed approach to flexible trading would make it easier or lower the costs of participation. However, we consider provision of FCAS could continue to be a complementary service and additional value stream for customers alongside other flexibility services provided via AEMO's proposed model.

As discussed in more detail in our submission to the consultation paper, there are three key requirements for demand flexibility frameworks to be successful in delivering beneficial outcomes to consumers and the wider market:

1. allowing more than one energy service provider at a site
2. separating retail services from demand flexibility services
3. low transaction costs.

We consider AEMO's proposed approach meets these criteria and encourage the AEMC to consider these requirements in developing the details of the draft rule.

Importantly, setting up a secondary settlement point must not require negotiation with, or approval by, the incumbent retailer, and retailers must not be able to prohibit secondary settlement points through anti-competitive customer contracts. As acknowledged by the AEMC in its consultation paper for this rule change, retailers do not have an incentive to partner with aggregators to facilitate flexibility services.[2] Similarly, retailers do not have a natural incentive to facilitate the installation of a secondary settlement point, even where it is the customer's preference.

While customers could switch to a retailer that would not block the creation of a secondary settlement point, in practice this is a significant barrier to enabling flexibility services because of lock-in contracts and time poor customers. Avoiding this barrier altogether is more likely to allow customers to access the variety of services – and providers – that will allow them to optimise use of their CER.

The remainder of this submission provides further details on:

- flexible trading with multiple energy service providers
- Enel X's preferred approach to separately identifying and managing responsive CER – that is, AEMO's Flexible Trader Model 2 (FTM2), with some differences in implementation
- why the other, existing options identified by the AEMC are less effective than FTM2
- interactions between FTM2 and WDRM
- separation between passive loads and responsive CER
- implementation issues.

Enel X works with C&I customers and, as such, this submission focuses on the application of the proposed rule to large customers.

Flexible trading with multiple service providers at a consumer's site

As we note above, Enel X considers the benefits of this rule change to customers are in opening up the use of flexible resources to competition by allowing parties other than the retailer to offer flexibility services. For this reason, enabling third party services providers to operate at the secondary settlement point is integral to providing benefits to large customers. Retailers have limited incentives to offer different products and services that may conflict with their primary role of selling energy. As such, it is competition from alternative service providers that will drive benefits for consumers – and therefore flexible use of CER that leads to wider market benefits.

The remainder of this submission considers the arrangements required to support multiple energy service providers at a customer's site to allow consumers to extract value from their flexible energy resources.

The AEMC has raised concerns about retailers at the primary settlement point potentially being "hollowed out" if they retain some costs but lose material revenue streams. Across its

[2] AEMC, *Unlocking CER benefits through flexible trading – Consultation Paper*, December 2022, p.15.

consultation paper and directions paper, the AEMC identified three areas of potential concern relating to:

- customer protection requirements,
- network tariffs, and
- arbitrage between primary and secondary settlement points.

Customer protection requirements do not apply to large customers, so this issue is not relevant. We discuss network tariffs further below, but ultimately we agree that the retailer at the primary settlement point should be able to recover all relevant network costs from the customer. The ability for customers to switch between primary and secondary settlement points is also discussed further below. As we note, the impacts of this require further detailed consideration.

However, in principle, any revenue loss for incumbent retailers through competitive market services should not be of concern to the AEMC. If the objective of the rule change is to deliver greater value to customers through making better use of their flexible resources, we consider this can best be achieved by opening up flexible resources to competition. The party best placed to extract value from CER on behalf of the customer should be able to do so, whether that's the incumbent retailer or a third party service provider.

Separately identifying and managing responsive CER – preferred approach

We support AEMO's proposal to:

- introduce secondary settlement points within a consumer's premises
- require secondary connection points to be metered and metering installations assigned a NMI
- allow secondary settlement points to have different metering installation arrangements for measuring CER flows, where appropriate
- facilitate subtractive metering between the primary connection point and the secondary settlement point.

In the confidential attachment to this submission we set out how we see this approach applying to different use cases. The rest of this section sets out our views on metering configuration, metering installation arrangements, recovery of network tariffs and other technical and market functionality issues.

Metering configuration

We support subtractive metering as the simplest, least-cost means to separate data flows between the primary and secondary settlement points. AEMO is already capable of working with subtractive metering, which is used to support settlement in embedded networks, and therefore this approach should not be complex to implement.

From a customer perspective, subtractive metering has the advantage that it does not require significant rewiring of a customer's premises, which would add significant costs, time and disruption for the customer.

In contrast:

- **Parallel metering** requires the meters at each settlement point to be electrically isolated. This does not work in practice for two reasons. First, the value of a flexible asset to the customer, such as a generator or a battery, is that it provides flexibility to the remainder of the site. Requiring the flexible asset to be electrically separated from the load prevents this from happening. Second, rewiring a site to be configured in this way is not without complexity, and comes at a significant cost.
- **Multi element metering** requires a single meter to have multiple measurement elements, with each electrical installation downstream of the meter electrically isolated. There are costs and complexity involved to establish this setup, and it could create additional commercial challenges if third parties are required to negotiate with a metering coordinator appointed by the primary FRMP to set up or access the meter.

Importantly, cost is not the only factor that will determine whether a customer will invest in the necessary equipment to enable them to extract value from their CER. The time taken to set up the arrangements and the level of disruption to the customer's business can equally dissuade a customer from using their assets flexibly.

For these reasons we consider subtractive metering to be the only practical option for separating out flexible resources and allowing multiple service providers. Under this approach, the second metering installation can be installed close to the flexible asset, limiting the costs associated with separating out the flexible and non-flexible CER. It also avoids the potential commercial challenges of negotiating changes to the metering installation to facilitate multi element metering.

Metering installation arrangements

Enel X supports permitting greater use of alternative metering installations, including in-built metering within devices. Where used to participate in markets (e.g. wholesale or FCAS markets), particularly by a third party, the meter clearly needs to be capable of capturing accurate and verifiable data to support settlement. However, we agree with AEMO's proposal that they should be able to assess whether devices other than NER-compliant meters, including in-built devices, may be used. This approach provides additional flexibility and options for consumers to extract value from their CER at a lower cost.

Recovery of network tariffs

AEMO has proposed that network tariffs would continue to apply at the primary settlement point. Consistent with our previous submission, we agree that this is the simplest approach. This is effectively the approach used today within embedded networks. Ultimately the retailer will be able to recover the network tariffs from the customer.

Other technical and market functionality issues

The AEMC has identified several technical and market functionality issues to be resolved to allow a secondary settlement point to be established:

- *Changes required to the roles and responsibilities of metering coordinators, metering providers and metering data providers, including where there are two metering providers at the same premises.* Enel X agrees changes will likely be required, but we consider these

changes are unlikely to be substantive and that any new roles and responsibilities are likely to be similar to existing functions. Further, these functions are essentially the same as those currently carried out in embedded networks.

- *Integration of the second settlement point data into AEMO's wholesale energy settlement processes, including assigning NMIs to secondary settlement points.* AEMO has indicated that integration of secondary settlement point data into its systems and processes is feasible and will not impose costs on others. We consider the role of creating and maintaining NMIs for secondary settlement points could be incorporated into an existing role e.g. the metering coordinator or metering provider. Again, while changes will be required, these are implementation issues that can readily be addressed. As above, this role is already performed by an Embedded Network Manager.
- *Technical specification requirements for the CER measuring device.* As noted above, we support the ability of AEMO to approve less onerous metering installation arrangements, potentially subject to principles in the NER (e.g. must be compliant with the National Measurement Act). Ideally, AEMO would define the minimum requirements and allow service providers flexibility to meet those requirements in any way they see fit.
- *Whether there should be limitations on how the CER measuring device could be used for market interactions*. In our view, AEMO should have the flexibility to determine whether a measuring device is appropriate for its use. The AEMC has suggested that a second settlement point at a single connection point could be restricted to defined situations and conditions (e.g. EV charging) and, if so, criteria and governance processes may need to be applied when allowing second settlement points at customer premises. For large customers we consider there should not be any limitations on the situations and conditions for a second settlement point. It is not clear what problem this would be to address, and risks simply restricting innovation.

Other options for separating flexible from non-flexible load (status quo)

The AEMC has identified two approaches that could be used under the existing rules to separate flexible from non-flexible load:

- A second connection point to the distribution network
- Embedded networks

Second connection point

We outlined in our submission to the consultation paper why a second connection point to the distribution network is costly and difficult to install in practice. The AEMC has suggested that amending how network tariffs apply at second connection points would reduce the costs associated with this option. While this would reduce the ongoing costs of a second connection point, addressing the application of network tariffs alone is not sufficient to make this a viable option. As noted in our previous submission, other barriers include:

- installing dedicated wiring from the boundary to the device
- disruption to the customer due to the entire site needing to be switched off
- challenges associated with space on the switchboard and overly prescriptive wiring rules
- the cost and time required for the DNSP to establish the second connection point.

Enel X does not oppose alternative approaches to network charges for sites with multiple network connection points. Generally, the more choices available for customers the better. However, changing the application of network tariffs will not address the other barriers that prevent this approach from being used.

Embedded networks

Embedded networks are a workable solution for separating flexible and non-flexible load on a single premises and allowing a third party to provide flexibility services. While these arrangements are explicitly permitted by the AER, the framework was arguably not intended for this purpose and so the mechanism is clunky. Therefore we would support transitioning to an alternative framework provided it is low-cost and facilitates the same outcomes. Broadly, we consider the design of FTM2 meets these criteria.

We understand that AEMO has some concerns about the use of the embedded network framework more broadly. These concerns have influenced some of the implementation details for AEMO's FTM2 model and led to AEMO's request to ban the use of embedded networks for the purpose of separating flexible and non-flexible load. The concerns raised by AEMO are not universally relevant to all embedded networks that are used to facilitate flexibility services. As such, any moves to address these concerns need to be appropriately nuanced to avoid impeding legitimate activities that bring value to both customers and the wider market.

For example, AEMO has suggested anomalies in energy settlement are caused by backup generation in embedded networks when the embedded network is isolated from the grid. While we agree settlement anomalies could occur where isolation is caused by a grid blackout, they do not occur where the embedded network is deliberately isolated from the grid to allow backup generation to operate to provide demand response. Any rule to address AEMO's concern must cater for sites that isolate from the network to use backup generation to provide demand response.

Enel X currently has multiple customer sites operating under embedded network arrangements. If the AEMC chooses to ban the use of embedded networks, these existing sites will need to be either grandfathered or transitioned in a low-cost way to the new framework.

If the AEMC decides not to make a rule that allows third party traders to continue to provide flexibility services to customers, then the use of embedded networks should not be banned for reasons discussed in our previous submission. We consider that the concerns raised by AEMO should be addressed, but in a way that targets their specific concerns – not a blanket ban on legitimate activities utilising embedded networks that benefit customers and the wider market.

Finally, we note that AEMO has raised its concerns about embedded networks with the AER as part of its *Network service provider registration exemption guideline review 2021-22*. This review appears to be on hold. We consider the issues raised by AEMO should not be addressed by the AER until policy direction has been given by AEMC via this rule change request.

Potential to allow more sites to be eligible to participate in WDRM

FTM2 has the potential to assist in resolving some of the limitations of the WDRM, allowing it to operate more effectively and potentially unlocking additional flexible capacity that could enrol in WDRM. As such, we see FTM2 as a complement to, not a replacement for, WDRM.

For example, customer sites must meet the predictability of load (PoL) requirements of the WDRM to be eligible to participate. However, sites with solar typically do not meet the PoL requirements: even if the underlying load is predictable, variability in solar output can result in the site not meeting the PoL requirements.

While we consider this issue would be better addressed through amendments to the baseline eligibility metrics and/or new baselines, and have been discussing this possibility with AEMO, FTM2 could also resolve this issue by setting up a secondary settlement point for the load. The load could then be enrolled in WDRM. Separately settling the load and solar would remove the variability of the solar, allowing the load to pass the PoL requirements. A FRMP would need to be appointed at the secondary connection point to service that load, which could be the incumbent retailer or another party. The rules would also need to specifically allow for wholesale demand response to occur at secondary settlement points.

This approach could also be used to at sites where the customer has some load that is predictable and some that is variable. Setting up a secondary settlement point for the predictable load would allow it to meet the PoL requirements and be enrolled in WDRM.

Potential to support implementation of a rule change that will allow more demand response to enter the market

Sites with multiple, electrically connected connection points are not permitted to participate in WDRM. We understand this is due to a concern that a DRSP might game the mechanism by shifting load between a site's connection points to make it appear as though WDR was provided while keeping total consumption unchanged. Enel X has submitted a rule change request to address this issue because many commercial and industrial sites are served by multiple connection points and these sites could be major sources of demand flexibility.

FTM2 expands the capability of MSATS by allowing multiple NMIs at a single site to be linked. Currently this can only occur for parent and child connection points within embedded networks. If MSATS can allow primary and secondary settlement points to be linked under the FTM2 model, the rule should be broad enough to allow peer-to-peer linking of connection points. This would allow connection points from a single site to be linked in MSATS, giving AEMO visibility of load at the entire site and so resolving any concern about potential gaming of WDRM. Indeed, this was the solution proposed in our rule change request.

A rule change will still be required to fully implement our proposed solution. However, our understanding is that primary cost of implementing our rule change request relates is in amending AEMO's systems to allow the site's multiple connection points to be linked. If this is addressed through the FTA rule, then very few costs, if any, would remain in implementing our proposed rule.

The benefits of addressing the multiple connection point issue will expand as more players seek to the WDRM. Various other policy initiatives have increased the incentive to participate in the WDRM, for example:

- The NSW Government has made participation in the WDRM a prerequisite for demand response to provide reliability services for its firming tenders.
- Access to the demand response component of the NSW Peak Demand Reduction Scheme requires WDRM participation.

- The NSW Government has accepted a recommendation for its agencies with large electricity loads to investigate participating in the WDRM themselves.[3]
- Demand response resources will be required to be scheduled through the WDRM in order to participate in Capacity investment scheme tenders.

As a result of these policy initiatives, interest in participating in the WDRM will grow.

Separation between passive loads and responsive CER

An important consideration for implementing FTM2 is whether separation between primary and secondary settlement points should be hardwired, or whether both settlement points should be able to supply the same loads and CER assets. We note the concerns expressed by the AEMC and some stakeholders about the ability of customers to arbitrage between the two settlement points. We also have some concerns about incentives on incumbent FRMPs to limit, or prevent, installation of secondary settlement points where this could occur.

However, we also support providing customers with choice and the ability to determine arrangements that best suit them. In this respect, allowing customers to switch load and CER assets between connection points could provide them with more value. If permitted, this should be facilitated in a simple and low cost way by allowing the meter at the secondary settlement point to simply be switched on and off, rather than a physical switch.

Ultimately, more detailed consideration of how these arrangements could work in practice and the potential impacts and implications is required.

Implementation

As highlighted in this submission, we consider there are significant benefits in implementing FTM2, with some tweaks in the implementation details. As such, we consider it should be implemented as soon as possible. Importantly, it should not be tied to other rule change requests that may progress on a different timeline or may not be made at all, such as the *Integrating Price-responsive Resources into the NEM* rule change.

This is consistent with AEMO's rule change request, which states that "this proposal is a logical extension of the recently published IESS rule change and is sufficiently separate from other ESB initiatives to be progressed independently and without unnecessary delay."[4]

[3] NSW Government, Office of Energy and Climate Change, Electricity Supply and Reliability Check Up – NSW Government response, September 2023, p. 14.
[4] AEMO, Rule change request – Flexible trading arrangements and metering of minor energy flows in the NEM, 6 May 2022, p.21.