



Anna Collyer
Chair, Australian Energy Market Commission
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Submitted electronically via aemc.gov.au

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Dear Ms Collyer

Unlocking CER benefits through flexible trading, Consultation paper (ERC0346)

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Commission (AEMC) Consultation Paper: *Unlocking CER benefits through flexible trading*.

The CEC is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as a range of stakeholders in the National Electricity Market (NEM), to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

We do not support the Flexible Trading Arrangements rule change.

A clear case for the need for flexible trading has not been made and the proposal has not detailed the material changes that have occurred since the Multiple Trading Relationships rule change was not made. No examination of what can and can't be done today in terms of delivering flexibility has been made, and there are "traders" successfully delivering flexibility services today in the market. As such, it would be useful to first understand what might be needed to accelerate these successful approaches rather than add additional complexity. In addition to not making an unequivocal case for change, no cost-benefit analysis has been undertaken to understand (a) the costs and benefits to customers (all customers) and (b) the cost to the industry of delivering the technical changes needed to underpin flexible trading arrangements as proposed.

There are a significant number of very serious problems with the practicalities of the rule change that will have negative and unintended impacts on customers, particularly for vulnerable customers.

The rule change proposal will materially setback steps being made to facilitate flexible approaches through Dynamic Operating Envelopes and dynamic network tariffs, since only the primary Financially Responsible Market Participant will see these signals. Restricting access to dynamic operating envelopes and tariffs is likely to slow the pace of renewable CER uptake, reducing Australia's ability to meet emissions and renewable generation targets.

The rule change is entirely dependent on the provision of more meters to customers, in a context where it is already challenging to access a new smart meter. The focus should be on ensuring that all customers have a smart primary meter as this will provide many and wide benefits to customers

accessing their data to manage energy use. Additional secondary meters will be a distraction, which may divert efforts on primary smart meters to provision of secondary meters, favouring those who can afford to invest in CER, rather than those customers who are already excluded from the underlying transition to clean energy.

The Clean Energy Council has a broad range of members in the distributed energy sector and while there are a very limited number of members, typically established operators of Virtual Power Plants, who support the rule change, the vast majority of members do not support the rule change due to a multitude of reasons. In particular, the cost and complexity of additional meters, the fact that the need for flexible trading has not been clearly articulated and that members are already accessing the market with products based on customer and CER flexibility and feel these approaches should be supported and allowed to flourish without the potential negative impacts on customer confidence that the rule change will likely engender.

In our submission we set out a range of issues, but this is not exhaustive, since new issues are emerging as we continue to work with our members on this rule change proposal.

What is problem this rule change is trying to solve?

The rationale for the rule change appears to be the enablement of flexibility provision from the demand side, with a focus currently on residential flexibility, although this not clearly articulated in the rule change proposal or the consultation paper.

It is possible today to provide flexibility to the distribution and wider system, either through behavioural approaches, the Small Generator Aggregator (SGA) model, Virtual Power Plants (VPP), Wholesale Demand Response Mechanism, network tariffs etc. It is not clear how the addition of multiple secondary meters behind the primary meter will facilitate provision of flexibility given the costs and complexity of the approach outlined in the AEMO rule change.

If, as is contended, the large gentailers, typically the primary Financially Responsible Market Participant (FRMP), are behaving in an anti-competitive manner to block the development and establishment of new business models that enable demand side flexibility, then this issue should be resolved through the ACCC and AER. If this is the issue, a resolution that adds a great deal of complexity and risk to the market, as is proposed here, will place a significant cost on customers with few, if any, benefits.

We would suggest that the issues that are preventing the demand side from providing flexibility to system are varied and complex and will not be solved by adding more complexity and cost for customers.

Lack of a market for flexibility services

In our view there is a missing market for flexibility services. Currently, other than some small Distribution Network Service Provider (DNSP) led behavioural response programs and legacy DNSP tariffs, the only avenue for customers to earn an income for flexibility is through the provision of Frequency Control Ancillary Service (FCAS) and Reliability and Emergency Reserve Trader (RERT) to AEMO. These services exist now, and there are likely to be more in the future, that could be delivered by the demand side, but these services and their value are yet to be clearly articulated to potential providers.

Even in this nascent market, there are a range of retailer and aggregator led demand response and EV-specific offers today, including but not limited to:

- Powershop's Curb Your Power Program

- Origin Energy's Spike program, and Loop VPP program
- AGL has electric vehicle plans
- Amber Electric dynamic pricing

These approaches indicate that the market is developing skills and offers in demand side flexibility and further suggest that there is no need for the proposed rule change.

In the UK, the DNSPs are using flexibility markets to procure flexibility services, through tendering, to support the distribution network, delaying or avoiding the need to invest in new network hardware. Initially, even with a clear specification of the service required, the DNSP had to set a price to bring forward providers, however, within 12-18 months, a competitive tender market had developed and individual DNSPs were procuring over 3 GW of flexible non-network services.

Australian DNSPs have a limited appetite for non-network solutions and network services specifically. AEMO's Project EDGE is exploring a network services market, with a centralised AEMO-run market platform. Project EDGE is designed to provide evidence to underpin predetermined future market design and outcomes and will not necessarily provide a rigorous insight into the most appropriate models for customers for the future.

Many DNSPs are developing a flexible export capability, which will also be applied to imports in the future. DNSPs will define what customers can and can't export and/or import through Dynamic Operating Envelopes (DOEs). This flexibility, particularly export, is being defined in the connection agreement and a financial signal is provided by the new export tariff, incentivising customers to reduce or increase their export to reduce the export tariff paid.

There is no clear pathway to progress from today's approach where customer flexibility is not rewarded to a market for flexibility that would reward customers. We believe that where a customer, large or small, provides flexibility this should be rewarded as a paid for service (or through a tariff).

Lack of clear signals

While DOE are in development, there is no clear signal to prompt a change in export or import. DNSPs do have time dependent network tariffs, but the Retailer is not obliged to pass these time-varying tariffs on to customers. Customers may want their retailer or aggregator to manage their exposure to network tariffs "out of sight", but some customers may wish to see and respond to those signals.

In Project Edith, Ausgrid is providing dynamic tariffs and DOE to an aggregator (Reposit Power), who then manages customer devices to minimise electricity costs to customers. This approach does not require multiple meters per device, but does leverage the SGA framework, soon to be Integrated Resource Provider (IRP), which uses a second connection and meter for generation. This model may not be an option that can be broadly applied, but demonstrates that where there is a price signal, it is possible for customers and their agents to provide a service that can be rewarded.

Additionally, a number of DNSPs have legacy tariffs that provide both system management services and a financial benefit to customers adopting those tariffs who are prepared to allow the DNSP to manage flexible devices such as hot water services, air conditioning and pool pumps.

Despite the robustness and reliability of the system support offered by these tariff-led services and the willingness of customers to partner with DNSPs on these tariffs, there seems to be a philosophical aversion from the market bodies to DNSP tariffs and a notion that these services could be better delivered through the "market".

If the goal is to facilitate flexibility for customers, then we need to support approaches that are simple for customers and that give customers the choice to participate, without requiring investment from the customer and adding complexity and risk.

Lack of experience

Australia has a poor record when it comes to leveraging the demand side to provide flexibility and system support services. WDRM only commenced in October 2021, 16 months ago. AEMO has come very late to the role of the demand side in supporting secure and reliable system operation, whereas other markets have a strong history of using demand response to support the power system.

In the UK, demand response has been providing system support for decades and continues to be a critical source of flexibility today. Initially in the UK, demand response came from the Commercial and Industrial (C&I) sector and in 2015 National Grid Electricity System Operator (ESO) commenced an initiative to grow that role of C&I response through an education program ([Power Responsive](#)) with the aim of having 50-60 % of system services provided from the demand side.

Because of the strong ESO-led market for demand side flexibility in the UK at the C&I level and a well-developed pool of aggregators, there was an established group of providers that could transition to residential-scale flexibility. Aggregators were reluctant to move into the residential-scale market because of the complexity of engaging and retaining customers, however the development of services by DNSPs and the ESO with a specific focus on the residential-scale, has seen householders provide remunerated system support this winter in the UK in response to tight capacity.

It should also be noted that, in the UK, demand side response has been successfully provided and settled without the need for additional settlement meters, for decades, with the code change (P375) to allow “device meters” only coming into force in June 2022. Additionally, the device meters for settlement in the UK model are compliant with the SMETS specification and the settlement process is not subtractive (using the primary meter), but based on the device meter reading. The work in the UK has been underpinned by a cost-benefit analysis, which is missing in the this rule change proposal.

Lack of mature contracting and risk management understanding from potential providers

Due to the lack of experience with demand side flexibility in Australia, new providers have a limited understanding of the requirements of both AEMO and DNSP in term of risk management and appropriate contract terms.

Both AEMO and DNSP must maintain secure and reliable systems under the rules. Both can be liable for any system failure, although this is less the case for AEMO than for DNSP, with the latter incurring financial penalties for prolonged outages.

Some new aggregators are unwilling to take on the contractual risk of non-delivery of a service to a DNSP or AEMO, bidding in an entire portfolio of response without recognising potential performance issues. If the DNSP or AEMO cannot rely on a non-network service due to non-performance, then both will be reluctant to adopt new approaches.

There are a few highly experienced international providers of demand response in Australia who do hold portfolios and bid to ensure that the service can be delivered reliably and are successfully providing FCAS and RERT today.

More education on the service provision opportunities, the value of these services and contractual arrangements is needed before new providers and purchasers can be comfortable and confident in flexibility markets.

Lack of trust and interest from consumers

Finally, there is a wealth of information that suggests that customers do not trust the “system” and the entities that operate the system. This lack of trust extends to allowing third parties to control customer-owned assets like solar PV, batteries and EV. The Project EDGE work strongly indicates that customers just aren’t interested in working with aggregators. In particular, having been empowered through owning and using rooftop solar PV, customers would rather maximise the benefits through behavioural approaches, namely manage the addition of further devices, such as batteries and EV themselves, than rely on aggregators or retailers.

Customers are focused on reducing their bills, and while additional income from providing flexibility would be welcome, the need to partner-with and/or cede control of devices is a significant barrier.

This lack of trust and interest needs to be resolved before any significant amount of additional household flexibility will be provided to the market.

The industry is asking customers to provide access to their assets in an environment where the DNSP and AEMO can just turn off rooftop solar and force import, with no compensation. In the current energy ecosystem, it cannot be surprising that customers seek and will continue to seek to divorce themselves as far as possible from the system. Requiring customers to invest in multiple meters to provide flexibility is not an approach that is likely to be successful. Further, requiring these secondary metering arrangements to be approved by AEMO, who will also tell customers what devices they can and can’t use behind their own front door, is unlikely to build trust and a willingness to engage.

It is not clear how the multiple secondary meters behind the primary meter, as proposed in the AEMO rule change, will resolve any of the issues outlined above and, without a resolution to all of these issues, the likelihood of customers providing flexibility is limited.

Cost and complexity to customers

AEMO asserts that since the 2015 Multiple Trading Relationship rule change, which the AEMC did not make, the landscape has materially changed to a point that a multiple trading relationship or flexible trading arrangements are now beneficial for customers or will be beneficial in the near term (e.g. the advent of EV). AEMO suggests that the costs to customers of adding secondary meters is outweighed by the benefits of such meters. However, no cost-benefit analysis has been undertaken since the ESB work to ensure that there are net benefits to customers.

We have concerns that the requirement for secondary meters will complicate moving house for customers, since the purchaser of a property with secondary meters may not want or need those secondary meters and the original customer will have to invest again in more secondary meters at any new property.

Additionally, the approach of requiring secondary meters will exclude those who are not owner-occupiers, with renters already excluded from participating in the clean energy transition.

The UK’s code modification proposal P379 “Multiple Suppliers through Meter Splitting” was withdrawn after the cost benefit analysis determined that costs were in excess of benefits.

A full and transparent cost-benefit analysis is needed before this rule change progresses any further.

The Problems

There are extensive problems with the proposed approach and some of the problems are fundamental to the way the system and market functions and customer protections.

Unwinding the connection point and settlement point

The idea that the current arrangements, where the connection point and the settlement are the same point, can just simply be parted and that it is easy to now have a connection point and a separate settlement or multiple settlement points is untenable.

The National Metering Identifier (NMI) currently identifies the connection point as well as a primary metering/settlement point. Separating the NMI from the connection point (or allowing the connection point to have the same identifier as the settlement point) is non-trivial and will have unintended consequences once worked through the rules that are based on the implication that they are the same point.

We have concerns about how this separation will impact vulnerable electricity customers, particularly those on life support and advise extreme caution on progressing with an approach that is dependent on separating the connection point and the metering point.

Liabilities for Primary FRMP

The primary FRMP has all the liability for network charges and energy flow charges but with zero control over the behaviour of the secondary FRMP/s. Along with liability, the primary FRMP will also see their business model eroded and it is hard to see why an established retailer would continue in a market that places it at a disadvantage. The loss or failure of established retailers would have a significant detrimental impact on the wider market and customers.

Additionally, if only the primary FRMP is exposed to network tariffs, then one means of facilitating flexibility is limited, since the secondary FRMP/s will not see the price signal offered by a tariff and network tariffs are one simple and an established way to provide value to flexibility (E.g., Tariff 33/31 and Project Edith).

There is a very real risk that customers will be able to game FRMPs by switching FRMPs to exclude other FRMPs. Even in the absence of customer gaming, it is hard to see why multiple FRMPs, primary and secondary, will feel any obligation to play nicely with each other, as they each compete to make money, with the potential that the customer will be worse off.

Flexible exports and imports

DNSP currently provide price signals to the connection point via tariffs. It is anticipated that DOE will be provided to the connection point. The method for allocating the capacity outlined in the DOE between multiple FRMPs would be complex and unlikely to be undertaken by the DNSP, since it would be a "behind the meter (connection)" activity, with DNSP ringfenced out of managing customer devices.

It is also not clear what the wider ringfencing implications of separating the metering point and connection points might be.

DOE are being developed as a means to efficiently manage distribution networks. All of the DNSP are working on DOE approaches and the proposed rule change undoes all of this critical work. Additionally, the requirement for secondary FRMP may result in a reduction in not just flexibility but also a reduction in the uptake of Customer Energy Resources (CER), as well as other distribution

connected renewable generation. Any slowdown in the rollout of renewable energy approaches at all scales will limit Australia's ability to achieve emissions and renewable generation targets.

Prevents self-consumption

Currently, the major value from CER is derived "behind-the-meter (connection)", with customers maximising their self-consumption of the electricity they make and minimising the import of electricity from the wider market. There is some additional value for customers in providing services to the wider system and market, however, self-consumption is a significant disruptor to the business models of many of the legacy incumbents. We are aware of contracts between C&I customers and a gentailer that explicitly bar the customer from installing CER during the term of contract.

Where a customer opts to add secondary meters and work with secondary FRMPs, this would limit the ability to self-consume electricity since the secondary FRMP would want to manage and access the value of the customers energy (e.g., the secondary FRMP would require that the customer's EV battery be charged from the customer's rooftop solar PV, to maximise the value of arbitrage when exporting to the market from the EV battery, but reducing the customer's ability to use that solar PV generation to offset other non-controlled load such as a tumble drier).

All of these serious issues, plus others not articulated here, must be resolved before progressing further with the AEMO rule change.

Meters for minor flows

Further work is needed on the proposed specification of the Minor Energy Flow Meter (MEFM). We accept that the reduced functionality of the MEFM may be suitable for some limited use cases, such as street furniture, but we have significant concerns about the current specification for the MEFM for residential and C&I use.

We do not believe that removing some of the functionality of the current settlement meter will materially reduce the cost of the meter or the size of the meter. This will place costs on customers for as many additional secondary meters as is required to manage multiple devices and may require a new switchboard to accommodate all the new secondary meters.

As we have seen with the loss of displays on inverters, trying to identify compliance or diagnose problems in the absence of a display is nearly impossible and certainly more complex and time consuming.

Given the issues raised above of customer gaming their FRMPs, both primary and secondary, the ability to have a remote access to the secondary meters seems to be essential. Indeed, AEMO requires remote access to the minor energy flow meter, so it would seem appropriate that the financially responsible party also has remote access.

The UK specification for their smart meter includes the requirement for auxiliary circuits to allow for separate control of those circuits (e.g., heating and hot water tariffs, EV etc) and, even given that specification, the UK has not supported multiple traders, determining in 2021, that the costs and complexity of multiple traders far outweighed any small benefits.

AEMO over-reach

AEMO is an unregulated monopoly and monopsony, and this rule change represents an unnecessary and unprecedented intrusion into customers' homes and lives. The DNSP, a well-regulated monopoly, is not allowed to intrude to the level that AEMO is proposing here.

Under this rule change proposal, AEMO requires that it approve secondary metering arrangements to ensure subtractive settlement can work appropriately. Additionally, AEMO requires that it approve what devices can or can't be installed on a secondary meter at a customer's premises. Both of these issues are unlikely to secure social licence or increase consumer trust in the system.

Because AEMO is the settlement body, it has an unencumbered right to all settlement data from primary FRMP meters and secondary FRMP meters. This data does not have to be shared with customers or the DNSP, excluding these parties from a better understanding of their energy use and network. It is critical that should secondary FRMPs and associated metering be progressed that data from these secondary meters is freely shared with the customer and that key data, for instance that would support the operation of the distribution network, is included in metering service requirement provided by the Metering Coordinator (as we outlined in our submission to the AEMC's draft report, EMO040, Review of the Regulatory Framework for Metering Services).

Additionally, AEMO has a poor track record of on time and on budget delivery when it comes to large IT projects (e.g., 5 minute settlement, DER Register) and the rule change proposal appears to underplay the complexity of subtractive settlement and the opportunity for error. This will impact customer bills and full and transparent cost analysis of upgrading MSATS and any other industry costs associated with this rule change (e.g., NMI provision) must be undertaken before progressing this rule change.

Rolling out Primary Smart Meters is already a challenge

As the recent AEMC Review of the Regulatory Framework for Metering Services (EMO040) demonstrated, it is already very difficult to get a primary smart meter via a competitive metering provider and retailer. AEMO has suggested an approach to facilitate customer flexibility that is even more dependent on access to smart meters (even if modified), and it is hard to see how the Flexible Trading Arrangements can progress in a landscape where it is already a challenge to get a primary smart meter.

Additionally, provisioning secondary meters may distract the focus from the rollout of primary smart meters, with resources directed to those who are already well-motivated and who can afford to invest in CER, rather than ensuring that all customers have access to a smart meter and their own data from that smart meter.

Work on Flexible Trading Arrangements should not progress further until the outcomes of the AEMC Review of the Regulatory Framework for Metering Services is complete as it is a higher priority to ensure that all customers can access a smart primary meter and understand their energy use in real-time to underpin demand reduction, energy efficiency measures and demand management.

In summary, while recognising the need for flexibility from customers of all sizes, the Flexible Trading Arrangements approach is untested in terms of technical delivery, costs and impacts to customers. Further it raises many more problems than it solves and there are approaches to delivering flexibility that can be and are being used today and in the future that do not depend on such complex and unproven methods. AEMO needs to demonstrate transparently that the benefits outweigh the costs to consumers and much more careful consideration is needed to ensure customer protections are not rolled back due to this approach.

Thank you for the opportunity to respond, we would be very happy to discuss these issues in further detail with AEMC and to facilitate engagement with CEC members as part of the rule change consultation process. If you would like to discuss any of the issues raised in this submission, please contact Emily Perrin on eperrin@cleanenergycouncil.org.au.

We look forward to contributing further to this important area.

Yours Sincerely

A handwritten signature in black ink that reads "Jill Cainey". The signature is written in a cursive, flowing style.

Dr. Jill Cainey
Acting Director Distributed Energy
Clean Energy Council