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Australian Energy Market Commission
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Sydney NSW 2000

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Unlocking CER benefits through flexible trading

CitiPower, Powercor and United Energy welcome the opportunity to respond to the Australian Energy Market Commissions (AEMC) consultation paper on unlocking consumer energy resource (CER) benefits through flexible trading.

We support a fair and just energy transition, including through the facilitation of customer choice. Flexible service offerings can expand the choice customers have in the way they use and export electricity, allowing them greater flexibility and independence in their energy management decisions. In saying this, we do not support the introduction of flexible trading arrangements (FTAs) because:

1. The principles of FTAs are misaligned with consumer values and motivations

Flexible trading does not account for a holistic coordination of household consumer energy resources (CER) including optimising self-consumption. This is problematic for two reasons. Firstly, consumers place genuine value on their energy autonomy and flexibility, with many consumers installing CER to be less reliant on the grid. Secondly, self-consumption is an effective way to reduce a consumer's bill which is a key motivator for consumers. However, under an FTA, individual financially responsible market participants (FRMPs) will not be incentivised to optimise a consumer's consumption and generation to maximise self-consumption and/or minimise a consumer's bill as they will be seeking arbitrage opportunities within energy markets.

2. FTAs are focused on a small niche of consumers

In addition to a misalignment with consumer values, FTAs present barriers to uptake through both the complexity and agency required for a consumer to access the product (i.e., homeowners with installed CER who *can* be flexible with their load and are *willing* and *able* to engage). Through our own customer research on introducing flexible export products (which are considerably less complex than flexible trading), we still found that a key barrier customers cited to uptake flexible service offerings was the uncertainty and the lack of understanding surrounding the product. These barriers make it unlikely FTAs will ever be 'mainstream'. More realistically, the reform will increase the cost and inequality between consumers with and without CER and those highly engaged and those less so.

3. FTAs encourage inefficient use of networks

The policy focus in Victoria has been on encouraging greater self-consumption of CER to minimise stress on the grid (and further augmentation), particularly in an electrified future. FTAs will actively work against this policy objective. Secondary FRMPs are motivated by profits on arbitrage opportunity between energy markets, their hedge portfolios, and the CER they have under management, which may not be in the best interests of the customers whose CER are being controlled. FTAs would also encourage inefficient use of networks if secondary FRMPs are not exposed to cost-reflective network price signals. Network demand and extreme positive or negative spot prices are not always well correlated. Frequency control ancillary services (FCAS) can be provided

at any time, and this can exacerbate network constraints at times of low demand and potentially at times of high demand.

4. Unlocking CER benefits for consumers can be achieved more simply and at a lower cost to consumers and industry via home energy management systems

Consumers can derive value from their CER without the proposed market disruption and significant costs being proposed by FTAs. As a dynamic system operator (DSO) we are investing to manage the energy transition more dynamically and efficiently, including by engaging our consumers to participate and be rewarded for demand management, publishing yearly tenders for non-network solutions, and offering tariffs that provide both network management services and financial incentives to consumers.

Consumers can also receive value from their CER by using a home energy management system (HEMS) which creates value through optimising generation, storage, and use in response to wholesale energy prices and network tariffs for lower energy bills. HEMS are in the best position to co-ordinate a connection point dynamic operating envelop and to optimise behind the meter outcomes for consumers including solar soak. HEMS can also provide the potential to be used with customers CER by their retailer to provide an aggregated service (via a virtual power plant) in the NEM.

As a regulated entity, by having a role in how HEMS are used it will provide greater visibility and leverage for market bodies and government to enforce consumer protections and ensure benefits are being passed onto consumers.

If FTAs are further considered, we recommend the AEMC consider the following:

- **Further explanation of the problem definition:** the AEMO/AEMC should provide further information on the problem that is attempting to be addressed via the introduction of flexible trading. The rule change appears to be motivated by market ideology; however, it is unclear the market failure or the existing barrier or consumer voice that exists with the one-retailer led model that is driving the intent of the proposal. More information and analysis on the problem definition will allow industry to engage in genuine alternative models more meaningfully for consideration.
- **Flexible trading reform must consider the impacts to the implementation of dynamic operating envelopes:** the AEMC must develop a compliance framework to ensure dynamic operating envelopes (DOEs) are complied with and there is a clear course for enforcement in the circumstance compliance is not met. We consider it essential that secondary FRMPs are required to be licensed and subject to use of system agreements with distributors.
- **Consumer protections and monitoring of outcomes:** There is a material risk consumers will be taken advantage of, given the complexity of flexible trading arrangements. General low levels of energy literacy and willingness to engage, exposure to some of the most volatile commodity markets in the world and conflicting interests can lead to potential exploitation. We believe consumers must have the same protections and rights with their secondary FRMP as they do with their primary FRMP. In addition, we recommend there be oversight of secondary FRMP profits by regulators given the large information asymmetry between market settlement prices and money returned to consumers.
- **A thorough cost-benefits analysis much be conducted and small targeted trials:** To justify FTAs, the AEMC must conduct a thorough cost-benefit analysis which presents the costs and benefits incremental to the value consumers have access to without the proposed reform. Further, if the AEMC chooses to pursue FTAs and minor flow metering, we would encourage an initial trial in a regulatory sandbox environment to further test and understand costs and benefits in practice.

Should you have any queries, please contact Brent Cleeve on 0409 805 058 or bcleeve@powercor.com.au.

Yours sincerely,

A handwritten signature in blue ink that reads "Renate Vogt". The signature is written in a cursive style with a large initial 'R' and a distinct 'V'.

Renate Vogt
General Manager Regulation
CitiPower, Powercor and United Energy

AEMC consultation questions

Q1: Optimising and obtaining value from CER for consumers

The principles of flexible trading arrangements are misaligned with our consumers values and motivations. The intent of the proposed rule change is to allow consumers to establish separate retail contracts for different parts of their load. This will allow third parties to manage residential CER to use to arbitrage wholesale and other energy markets.

The Energy Security Board's Customer Insight Committee Release One Report completed an analysis on the barriers and enablers for rewarding consumers for access to flexible CER and energy use. In the ACIL ALLENS report it states that for consumer contemplating CER uptake, while perceived costs and financial benefits are key considerations, non-financial benefits (such as environmental benefits, community benefits and independence/autonomy) are also important for many consumers.

FTA does not account for a holistic coordination of household CER, including optimisation and self-consumption. This is problematic for two reasons. Firstly, consumers place genuine value on their energy flexibility and independence, with many consumers installing CER to reduce their reliance on the grid. Secondly, self-consumption reduces energy bills, which is a key motivator for our consumers. During our broad and wide customer engagement across Victoria, affordability was a key issue for our customers, including how we can ensure no customer is 'left behind' in the energy transition. Under FTAs, secondary FRMPs will not be incentivised to optimise a consumer's consumption and generation to reduce their bill. This is because secondary FRMPs motivations are driven are arbitrage opportunities based on the aggregate CER under their command, wholesale market contracts and the energy markets' themselves. It is also likely the benefits of FTA's are transitory. Significant uptake of FTAs will rapidly diminish the financial benefits as FTA is premised on chasing arbitrage opportunities. If the benefits of FTA are material, they will rapidly be competed away or absorbed by larger scale renewable energy portfolios such as that proposed to be held by the State Electricity Commission of Victoria.

There is also no evidence to show consumers are seeking choice in the way of multiple retailers or that they are comfortable with the complexity this introduces. We also know it is already difficult for consumers to engage in the energy sector. In the retail market, we continue to see a lack of responsiveness to retail electricity prices, and consumer switching is a key challenge in the energy industry today. We know that the lack of switching is not because our consumers are not impacted by prices but because of other factors at play including information asymmetry, complexity, poor time, or unwilling.

FTAs are focused on a small niche of consumers. In addition to a misalignment with consumer values, FTAs present barriers to uptake through complexity and the agency required for a consumer to access the product (i.e., homeowners with installed CER who can be flexible with their load). These barriers make it unlikely FTAs will ever be 'mainstream'. More realistically, the reform will increase the cost and inequality between consumers with and without CER and those highly engaged and those less so.

Q2: Existing and future CER products and services

The AEMC states FTAs could give rise to more innovative energy models and allow consumer to gain greater access to emerging models such as peer-to-peer trading, community owned batteries and mobile billing for electric vehicles (EVs). It is unclear how FTAs would directly enable consumers greater access to these models. FTAs are focused on establishing separate retail contracts for different parts of consumer load. The rule change

is not focused on enabling cross CER capability. For the above-mentioned services, a common retailer will still be required to manage the service.

The AEMC should further explore how FTAs are envisioned to enable innovation in the market, and how it may co-exist with other market reforms. For example, FTAs are at odds with cost-reflective pricing and the intent of current products and services in the market aimed at activating CER value for flexible load through optimising household coordination aimed at lowering overall energy bills.

Q3: Barriers to accessing CER value

The rule change suggests that the reforms are required to enable consumers to unlock value from their flexible resources by allowing third-party management of residential CER who can use it to arbitrage in wholesale and other energy markets. There is no evidence to suggest that a single retailer arrangement in the National Electricity Market (NEM) is a key barrier for consumers obtaining value from their CER, or a barrier to market innovation more broadly.

There are many products and services available to consumers today that reward them for activating their CER. The same benefits from FTAs are accessible without the market disruption and cost being proposed by FTAs. For example, consumers can gain value from their CER today through HEMS. HEMS create value by optimising generation, storage, and use in response to wholesale energy prices to deliver lower energy bills. These systems can automate responses and/or provide information to a consumer so they can make informed choices as to how they wish to respond. Consumers can also access distributor-led or retailer-led demand management programs as well as retail and/or network tariffs that provide both system management services and financial benefits to consumers who are prepared to have a distributor/retailer manage their flexible services or manage the flexible services themselves.

It is critical for distributors to maintain the right to procure network services directly from consumers as this allows savings to be passed on directly to consumers.

We agree that working together, as an industry, to encourage greater uptake of the abovementioned new products is critical. We are currently working with different providers to share information on home energy supply through working with retailers, solar installers, and the registered electrical contractors (REC). Social licence, trust, communications, education and alleviating financial barriers for consumer participation is key.

Q4: Opportunities for multiple settlement points with one FRMP

FTAs introduce further complexity into an energy market that is already too complicated for most. These complexity manifests itself for consumers through further layers of contractual relationships, new exposures to risk in some of the most volatile commodity markets in the world and uncertainty as to responsibilities and compliance. Whilst it's understood these additional complexities may benefit financial players in energy markets, it is not clear consumers will share in the financial benefits or even be compensated for the additional risk and uncertainty they are knowingly (or unknowingly) accepting.

Given this complexity and risk of FTA, the lack of engagement currently observed through the retail energy market via low switching, and the loss of independence and control required for a consumer to have adopted the product, we believe it is unlikely a significant number of consumers be attracted to FTAs.

Q5: Potential benefits and issues of engaging with multiple FRMPs at premises

Dynamic operating envelopment compliance and enforcement

One of the key challenges arising from the introduction of FTAs is how they impact DOEs designed to manage distribution networks through the energy transition.

DOEs are still in their infancy, with most distributors involved in trials and forming plans for their implementation in the next five years. We strongly disagree with AEMO's statement that FTA arrangements are not sufficiently novel to require unique consideration in the design of DOEs. Without proper consideration, the introduction of FTAs poses a threat to the effective operation of DOEs as a tool for managing the network and create an uncertain environment for compliance and enforcement of flexible trading arrangements.

We have been supportive of DOEs being applied at the primary connection point. This is driven by a belief that it is not practical for a DOEs to be split between child meters given the cost and complexity it introduces and the uncertainty it creates for consumers. Where DOEs are applied to multiple FRMPs, it would necessitate additional monitoring and compliance activities also increasing cost to our consumers.

However, we recognise there is real issue FTA creates in terms of compliance and enforcement of DOEs if they are maintained at the primary connection point. It will, potentially unfairly, result in the consumer or primary retailer violating their DOE despite neither party having any effective control given the secondary FRMP will be operating the CER.

Secondary FRMPs should be licenced by the jurisdictional regulator as a retailer and registered as a NEM participant. This would allow the introduction of a use of system agreement between secondary FRMPs and the distributors, the same arrangements that exist between retailers and distributors today. A use of system agreement would allow for more efficient management of situations where a consumer has engaged a secondary FRMP who then operates the consumer CER outside DOEs. It is also appropriate given the FRMP is using (and imposing costs) on the distribution network to transport their goods.

In the absence of a use of agreement, a secondary FRMP has limited incentive to comply with their DOE. Secondary FRMPs stand to make significant returns in the wholesale, FCAS or reliability and emergency reserve trader (RERT) markets. As such, any penalty applied for failure to comply with a DOE will be trivial compared to the profits available in these highly volatile markets. Therefore, licencing is important as a breach of a use of system agreement can be a trigger for a loss of licence, which would act as a more credible threat to secondary FRMPs.

Consumer switching within FTAs

We continue to see a lack of responsiveness to retail electricity prices, and consumer switching is a key challenge in the energy industry. We know that the lack of switching is not because our consumers are not impacted by prices but because of other factors at play including information asymmetry, complexity, poor time, or unwilling.

There has been reform to introduce safeguards for consumers in the retail space and increase consumer switching, such as the introduction of the Victorian Default Offer and the Victorian Government's one-off \$250 Power Saving Bonus.

Facilitating and encouraging choice in a flexible trading arrangement environment is critical to ensure good consumer outcomes. Firstly, consumers must have the **practical ability** to switch retailers and aggregators for their CER. The former Department of Environment Land Water and Planning (DELWP) completed a review on embedded networks and the harm caused to consumers who were not able to switch unless they upgraded their meter. The Panel found consumers within embedded networks had worse outcomes compared to their on-market peers. The DELWP review has resulted in a key recommendation being that even if a consumer is within an embedded network, they must be able to switch easily without high exit costs.

Secondly, even if consumers have the **practical ability** to switch, relying on market competition to prevail and protect consumers is not sufficient. Victorian residential electricity consumers had higher retail tariffs prior to the introduction of the Victorian Default Offer (VDO). Retailers were not passing on benefits to consumers but relying on information asymmetry and consumer stickiness to continue to hold higher prices.

It is recommended that a similar type of safeguard is considered like the VDO which was designed and implemented to be a simply, trusted and reasonably priced electricity option that safeguards consumers that are unwilling or unable to engage in the market once they have signed up to an FTA.

Q6: Models for flexible trading

The AEMC have presented four potential options for enabling flexible trading arrangements but no base case or 'do nothing' scenario. We encourage the AEMC to develop a base case scenario which includes not enabling FTA, and instead, estimating the uptake and market growth of the current and emerging products and calculating benefits based on that scenario.

Out of the identified options by the AEMC, option 1 is effectively a standard metering setup of two consumers on the one premise (i.e., a multiple occupancy). Each connection point would need its own supply point fusing, separate meter, and separate NMI. This option has material costs for consumers, particularly for brownfield sites, in terms of getting the site practically ready to be able to do this, and it is also likely to face physical impediments in terms of hosting multiple meters.

Option 2 and option 3 would both require significant IT costs for distribution business across MSATS and all metering data systems, even if there was low uptake. Options 2 and 3 also require significant onsite work on existing brownfield sites to convert the supply side and load side wiring and the consumers main switch board to be implemented into segregated elements. It also requires "express" rather than shared wiring from the appliance to the meter terminals to be installed, all at significant costs.

AEMO presents option 4 as the least cost however we do not agree with the assumption there will be zero costs to distributors. The costs arising from option 4 for distributors may include capability uplift to respond to consumer queries on their established FTAs, changes to network tariffs, capability uplift for line workers for rewiring, distributors communicating beyond the meter, ensuring consumer protections are upheld, safety implications for behind the meter switching, compliance with DOEs and/or augmentation to support non-compliance with DOE or increased export capacity to support secondary FRMP activity.

A cost-benefit analysis must be considered to understand the cost to all industry participants and therefore consumers, and to consider the impacts and opportunities at the "large" and "small" consumer level for both new and retrofit to brownfield sites.

Q7: Assessment criteria

The AEMC should assess the proposed rule change against the **base case scenario**. The base case scenario acknowledges that consumers can currently derive benefit from their CER and the market will continue to evolve regardless of the introduction of FTAs.

It is also recommended that the 'outcomes for consumers' criteria more explicitly refers to an assessment of **consumer expected benefits**. In estimating these benefits, the expected consumer uptake of FTAs should be estimated. This should be informed by grassroot consumer research and engagement with energy consumer representatives and advocates.

The principles of **market efficiency** should be extended to capture more than the retail competition market. There is concern that enabling FTAs will reduce market efficiency as FTAs could be utilised to enable sales of expensive high margin products with little regard to electricity price signals. For instance, an electric vehicle

seller may offer free electricity for two years for the charging of a new electric vehicle at the consumer' home. The seller may not offer any control or timing incentives to the consumer to maximise convenience for the consumer to boost car sales. This would result in a convenience charging profile which has a high-cost impact on the electricity system.

Q8: Competition issues with secondary settlement points

The introduction of multiple FRMPs is expected to negatively impact competition. Under FTAs, the primary FRMP is responsible for network charges, energy flow charges, DOEs, consumer protections and communications. In the case where the primary FRMP is only responsible for general power and light, and the remaining load is being managed by secondary FRMPs behind the meter, the primary FRMP is at risk of being 'hollowed out'.

Q9: Allocating network tariffs

FTAs reduce the ability of consumers, or their primary FRMP, to respond to cost-reflective network pricing. AEMO's proposal recommends that a distributor only charge network tariffs to the primary FRMP. AEMO's reasoning is that because the network charges are paid by the same end-use consumer, there is no need to apportion network tariffs across the different FRMPs.

The failure to allocate network tariffs to secondary FRMPs means they face no incentive to manage their impact on the network. For example, if a consumer is on a time-of-use tariff, but the network charges are only being paid by the primary FRMP, then the secondary FRMPs will not have any incentive to reduce a consumer's use of the network during peak times, penalising both the consumer and the primary FRMP.

It is expected that developing, implementing, and monitoring an algorithm allowing network tariffs to be split across sub-metering loads would be a significant cost to industry.

Q10: Information and communication requirements for secondary settlement points

Within an embedded network currently, local network service providers (LNSP's) only have visibility of the parent meter NMI, not the child NMI and their metering. Under AEMO's option 4 model, the LNSP will continue to be blind to the downstream generation, consumption, and the switching operations, other than that seen at the parent meter.

As a DSO, we need timely access to the child meters to perform our role in providing a safe, reliable, and affordable network. We will require sources of generation to be registered by the LNSP at the parent NMI connection.

Q11: Potential for limitations applied at secondary settlement points

AEMO proposes that resources connected to a secondary settlement point should be *controllable*, and that "electrical circuits and the equipment required by the user *on-demand*, are therefore not typically suitable for third party control" should be excluded.

It is not appropriate for market bodies or aggregators to decide, on-behalf of consumers, what CER and appliances *are* or *are not* required 'on demand'. Consumers have different perceptions, and they will evolve as more CER is installed or behaviour changes.

It is worrying that AEMO deems that equipment required by users 'on-demand' is **not suitable** for third party control. This implies that under an FTA arrangement, there will be scenarios where flexible load is not always available to consumers. AEMO predefines flexible load as including EVs, pool pumps, hot water, battery storage

and solar systems. The introduction of flexible trading arrangements would mark a significant shift in how energy is being presented to the consumers. Not as an essential service, but as a financial product.

While consumers should be enabled and encouraged to get the maximum value from their CER, this should not compromise their energy supply, even if consumers are being financial compensated.

Q12: Implementation issues for secondary settlement points

No comments currently.

Q13: Consumer protections

There is increasing complexity in the energy market and there will be a growing number of consumers unable or unwilling to navigate this complexity. Our own consumer research on the energy transition has highlighted a lack of trust amongst consumers with the sector. It is therefore critical that the regulators ensure trust is not further eroded by new products and services that are not captured by the regulatory framework. We are aware of cases in South Australia where the trader has traded out all the consumers energy storage resulting in the consumer again paying electricity bills (where they previously were not) and paying the trader for the service.

It is crucial that a consumer protections framework is developed and applied at all private metering arrangements. Consumers need protections and rights with their secondary FRMP that equates to those they have at the primary connection point. The AEMC must provide information on how a consumer protections framework will apply to private metering arrangements and how multiple FRMPs will coordinate regarding life support arrangements, hardship arrangements, complaints processes, and what happens when a consumer wishes to reconnect their CER back to the primary connection point. Monitoring of compliance will also need to be established as well as identifying which market body is best positioned to do this.

In addition, it is also recommended that there is oversight of FRMP profits to ensure benefits are being passed onto consumers. This is necessary given the large information asymmetry that will exist between consumers and secondary FRMP's. It is not sufficient to rely on market competition to prevail and protect consumers.

Q14: Metering requirements for secondary settlement points

We are supportive of targeted regulatory sandboxed trials for small-device metering to understand the benefits and ensure the functional requirements are up to standard to enable consumer protections and operation of the market.

Q15: Minor energy flow meters for use at secondary settlement points

We are supportive of targeted regulatory sandboxed trials for small-device metering to understand the benefits and ensure the functional requirements are up to standard to enable consumer protections and operation of the market.

Q16: Minor energy flow meters for street furniture

Provided a trial is first conducted to test minor energy flow meters and necessary metering requirements, we support minor energy flow meters for street furniture and support distributors to act as metering coordinator, metering provider and metering data provided for street furniture.