11 April 2024

Ms Anna Collyer
Chair
Australian Energy Market Commission

Project Reference Code: ERC0346

Dear Ms Collyer,

National Electricity Amendment and National Energy Retail Amendment (Unlocking CER Benefits Through Flexible Trading) Rule 2024, Draft Determination

Energy Queensland Limited (Energy Queensland) welcomes the opportunity to provide comment to the Australian Energy Market Commission (AEMC) in response to its Draft Determination on the *National Electricity Amendment and National Energy Retail Amendment (Unlocking CER Benefits Through Flexible Trading) Rule 2024*.

This submission is provided by Energy Queensland on behalf of its related entities:

- distribution network service providers (DNSPs), Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy);
- retailer, Ergon Energy Queensland Pty Ltd (Ergon Energy Queensland); and
- affiliated contestable business, Yurika Pty Ltd and its subsidiaries, including Yurika Metering.

Energy Queensland supports the transformation of energy-related markets and new innovative supply models that are emerging across the energy sector. We acknowledge that over time, consumers may seek to access different models to satisfy their energy needs, of which flexible trading may be one such approach. We also support an integrated planning approach to capture the opportunities of consumer energy resources (CER). If integrated well, CER may deliver additional benefits for all parties.

<u>Expected uptake by customers</u>

Nonetheless, we remain concerned that flexible trading of CER will only attract a very small number of customers, well below the break-even threshold identified by Energeia, which suggests an additional 156,798 devices per year will need to take up load flexibility via a second NMI for this reform to be cost effective. We do not consider a case has been made that a sufficient number of customers:

- will understand and adopt flexible trading;
- will make the necessary investments in money, time and effort to enable their CER to participate in flexible trading; and
- are prepared to adapt their energy use practices to make flexible trading of their CER worthwhile.

This concern is supported by the experience of a related reform, the Wholesale Demand Response Mechanism introduced in 2021, which has not achieved the anticipated level of take up among large customers.[1] As a result, if this flexible trading proposal proceeds, distributors and retailers will need to invest in system changes, the costs of which are expected to exceed any benefits derived from the low level of customer uptake. In our view a more appropriate option is for trial arrangements to test the reform's real potential, before committing the sector to significant change.

The three key areas of the Draft Determination

In terms of the Draft Determination's approach to large customers, we support the AEMC's position that customers should be able to capture value from CER without establishing a separate parallel connection to the distribution network. We also acknowledge that the AEMC has appropriately ruled out the physical switching of circuits between settlement points due to safety concerns. However, we continue to have reservations about how dynamic operating envelopes, network tariffs and multiple Financially Responsible Market Participants (FRMPs) will interact successfully to deliver net benefits to customers and networks, while meeting the broader imperative to orchestrate CER.

In terms of the Draft Determination's approach to small customers, we agree with the AEMC's position to have only one FRMP for a small customer who chooses to have a secondary settlement point for their CER. However, while the Draft Determination maintains existing consumer protections and addresses the issue of customers with life support equipment, we remain concerned there are additional bill impacts and energy utility considerations. The main reasons many customers invest in CER are to save on their own electricity bills and/or to use the CER-generated electricity at their premises. The FRMP's use of the CER for other purposes can affect both electricity bills and the availability of CER-generated electricity at the premises, so customers must be fully informed and understand how the FRMP's activities will impact them.

In terms of the Draft Determination's proposal for minor energy flows including public lighting and street furniture, we support the creation of two new meter types with lower minimum specifications, to enable technology with in-built measurement capability to be used for settlement and billing. In particular, the new metering type for public lighting will support the roll-out of more efficient and smart lighting technologies, helping to lower electricity costs and improve maintenance for the relevant customers, reduce carbon emissions, and enhance public safety and amenity. However, we have concerns about the proposed contestability of the Metering Coordinator, Metering Provider and Metering Data Provider roles in jurisdictions where DNSPs have traditionally fulfilled these roles for Type 7 meters for public lighting. DNSPs should be able to perform these roles, rather than having to offer the services through their ring-fenced contestable service providers, or applying to the Australian Energy Regulator (AER) for ring-fencing waivers. In the context of delivering a fair energy transition at lowest cost and, where appropriate, DNSPs are best placed to deliver services for smart public lighting, given the scale of the infrastructure and yet limited value on offer for competitive service providers. There are also safety-related requirements around third parties working on public lighting assets owned by DNSPs, which by their nature increase barriers for new market entrants.

[1] AEMO, Wholesale Demand Response Annual Report, June 2023, page 3

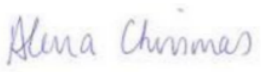
Energy Queensland Limited ABN 96 612 535 583
Head Office Level 6, 420 Flinders Street, Townsville QLD 4810 PO Box 1090, Townsville QLD 4810 www.energyq.com.au

Energy Queensland is concerned that the AEMC's draft approach could result in the sub-optimal deployment of smart cells, preventing customers from unlocking the full financial and environmental benefits associated with the technology, and by extension undermining the reason for this component of the rule change proposal.

Energy Queensland's more detailed views on the three main components of the proposed reforms, Energeia's draft cost benefit analysis, the timing of implementation, stand-alone power systems and our responses to some of the specific questions posed in the Draft Determination, are included in the enclosed comments. Neither this letter nor our enclosed comments contain confidential information.

Should the AEMC require additional information or wish to discuss any aspect of this submission, please contact either myself, or Andrew Bozin [redacted]

Yours sincerely



Alena Chrismas
Manager Regulatory Affairs

[redacted]

Encl: *Energy Queensland comments on the Draft Determination*

Energy Queensland Limited ABN 96 612 535 583
Head Office Level 6, 420 Flinders Street, Townsville QLD 4810 PO Box 1090, Townsville QLD 4810 www.energyq.com.au

AEMC Draft Determination on unlocking CER benefits through flexible trading – Energy Queensland comments

AEMC reference number ERC0346

ENERGY QUEENSLAND GENERAL COMMENTS ON THE LARGE CUSTOMER PROPOSALS

While Energy Queensland continues to question whether there is sufficient interest among customers to warrant the costs associated with implementing flexible trading of consumer energy resources (CER), we have the following concerns specific to the large customer elements of the proposed reform.

Energy Queensland is concerned about the effectiveness of cost-reflective network tariffs under the AEMC's Draft Determination, given these tariffs will apply to the connection point, but much of the controllable load or generation will be behind the secondary meter. The secondary Financially Responsible Market Participant (FRMP) will not be exposed to network tariffs, and therefore may export or import during periods of high cost to the primary FRMP. Since there will be no requirement for a contract between the primary and secondary FRMP, all related issues must be handled by the customer and its separate contracts with each FRMP. We query whether customers are equipped with the ability to manage this responsibility or whether they need to engage a third party. We anticipate another framework may be required to protect customers from sub-optimal outcomes.

We support the AEMC's proposal to not alter the application of dynamic operating envelopes (DOEs) at the primary connection point. CER behind a secondary settlement point will need to take into account flows through the associated primary connection when complying with a network DOE. We also foresee the need for additional efforts on standards, to work through the complexity of behind-the-meter CER coordination with respect to compliance with distribution network service providers' (DNSPs') DOEs because they will not apply at a device level, and to ensure appropriate current and voltage behaviour at the primary connection point.

Energy Queensland acknowledges and agrees with the Australian Energy Market Operator's (AEMO's) advice to the AEMC regarding the potential for gaming related to embedded generation during high-priced events, such as off-market power flows within an embedded network incorrectly being settled in the market and the regular switching of National Meter Identifiers (NMIs) between active and inactive status. We support close attention to this matter and would appreciate further detail on the proposed amendment of AEMO's procedures that aim to prohibit the practices. We also support the AEMC working further with the Australian Energy Regulator (AER) on the Network Exemption Guidelines and would welcome further clarity on how larger generation within an embedded network should be treated.

The AEMC appears to assume that all large customers that choose to have their CER under a secondary settlement point will be on market retail contracts that are easily amended to accommodate more complex arrangements. This is not the case for Ergon Energy Queensland's large customers in regional Queensland, who are on a Large Customer Standard Retail Contract.[1]

Energy Queensland also notes the following issues related to the large customer proposals will require further clarity:

- Deemed Standard Connection Contracts – these contracts' terms, which cover the connection of a premises to a distribution system for the provision of ongoing customer connection services, may need to be revised to accommodate the more complex arrangements associated with a secondary settlement point and network requirements, for example the application of a DOE.
- Notification of the primary FRMP – when a secondary NMI is established at a customer's premises, it is unclear whether the primary FRMP will be notified via market systems. The primary FRMP will need to understand how and when this will be communicated to it.
- Exposure of the primary FRMP to wholesale electricity market risk – if the customer's arrangement with the second FRMP for access to the CER is not permanent, the primary FRMP will need to be informed in advance of when (or the likely conditions under which) they are and are not responsible for this CER. Without this knowledge in advance, the primary FRMP will be exposed to and unable to plan for market risk.
- Provision of data – it will be essential to define which party is obliged to provide data from the secondary settlement point to the DNSP and how this data will be delivered.
- Aggregation across sites versus small customer classification – in the Draft Determination, business customers are permitted to "aggregate their load across different connection points to meet the threshold of a large customer in order to participate in flexible trading." It is unclear whether this means the load for each of their sites, or only the CER loads. With these sites classified as "small customers" under the National Energy Retail Law, it is also unclear what this means for the application of customer protection provisions.
- The concept of "premises"– the concept under the National Electricity Rules (NER), National Energy Retail Rules (NERR) and related contracts may need to be clarified, due to the introduction of secondary settlement points and in particular the proposed option to aggregate load across different connection points to meet the large customer threshold. In addition, under Chapter 5A of the NER, should connection alterations be considered for the premises broadly, rather than a supply point?
- Treatment of energy flows during outages – this will need to be addressed in AEMO's procedures.
- Coordination of scheduling metering installation works and rectification of defects or safety issues – this will be challenging across multiple parties and will require further consideration by AEMO.
- Child customers within an existing embedded network using a secondary settlement point for their own CER – in the Draft Determination this situation is allowed. We foresee there will be various complications to work through with this type of arrangement, including how it would be

[1] Standard Large Non Market Customer Retail Contract (ergon.com.au)

captured in market platforms, and how relationships will be managed between parent and child customers, the DNSP, multiple FRMPs and other parties such as multiple Metering Coordinators (MC) and Metering Providers (MP).

ENERGY QUEENSLAND GENERAL COMMENTS ON THE SMALL CUSTOMER PROPOSALS

Energy Queensland supports the AEMC's decision to retain a single FRMP for small customers but is concerned that separately identifying elements of a customer's load behind the connection point in effect prepares the small customer market for multiple FRMPs in the future.

We also note that small customers' CER can already be separated using existing arrangements such as primary and secondary tariffs, and that these arrangements should continue. Given these existing arrangements, we question the extent to which sufficient numbers of small customers will choose to take advantage of secondary settlement points.

In terms of small customers gaining benefits from secondary settlement points, we remain concerned that they may not achieve the optimal billing and energy utility outcomes they seek from their CER when signing up to the arrangement. We recommend further action to establish information requirements for customers, to ensure they are fully informed when making the decision to take up secondary settlement points for their CER. This will be vital, otherwise in our view the already ambitious break-even threshold of required uptake identified by Energeia will be beyond reach. We suggest it is appropriate for the small customer component of the reform to be delayed until such time that the necessary customer protections related to the provision of information have been developed.

We would also welcome clarity on the arrangements between the small customer's FRMP and DNSP in circumstances where there are potentially competing goals related to the management of the customer's CER. In addition, the terms of Deemed Standard Connection Contracts may need to be revised to accommodate the more complex arrangements associated with a secondary settlement point and network requirements, for example the application of a DOE.

ENERGY QUEENSLAND GENERAL COMMENTS ON THE MINOR ENERGY FLOWS PROPOSALS

Energy Queensland supports the creation of two new meter types with lower minimum specifications, to enable technology with in-built measurement capability to be used for settlement and billing. In particular, the proposed arrangements for public lighting will support the roll-out of more efficient and smart lighting technologies, helping to achieve lower electricity costs and improve maintenance for the relevant customers, reduce carbon emissions, and enhance public safety and amenity. However, we have a range of concerns related to the proposed settings in the Draft Determination underpinning these two new meter types, as outlined below.

On public lighting

While Energy Queensland acknowledges some DNSPs in other jurisdictions do not wish to be involved in metering, there should be flexibility in arrangements for public lighting metering to recognise jurisdictional differences. Energy Queensland does not support the proposed widespread application across all National Electricity Market jurisdictions of contestability for roles that DNSPs have traditionally provided for Type 7 metering for public lighting. In our view, these DNSPs should be able to continue performing these functions for the deployment of smart cell public lighting. This view has received widespread support amongst our DNSPs' key public lighting-related customers and stakeholders, as evidenced during our DNSPs' public lighting engagement for their 2025-30 Regulatory Proposals.[2]

The view is also supported by the Institute of Public Works Engineering Australasia (IPWEA) in its submission to the AEMC's Directions Paper, with IPWEA stating that "for the estimated 2.5 million street lights owned and managed by the DNSPs, it makes intuitive sense for the DNSPs to also play the combined roles of metering coordinator, metering provider and metering data provider."[3] We note that some of our DNSPs' customers for public lighting have provided their support for IPWEA's positions in this AEMC Rule Change process – their positions should be given weight in the AEMC's Final Determination.[4]

In our view delegating the deployment of smart cells to a DNSP's ring-fenced contestable service provider, as proposed in the AEMC's Draft Determination, would undermine the purpose of this key area of the AEMC's proposed Rule Change, because it would:

[2] Microsoft Word - Energex - 11.10 - Ironbark Smart Public Lighting Strategy - November 2023 - public (aer.gov.au), page 15
[3] Microsoft Word - IPWEA SLSC submission on AEMC Directions Paper 14 Sep 23 - Clean, page 7
[4] Microsoft Word - TMR IPWEA support letter - ERC0346 14-09-2023 (aemc.gov.au), Letter of support- Sunshine Coast Council.pdf (aemc.gov.au) and Policy_Portrait_Layout (aemc.gov.au)

- Result in a fragmented and inefficient approach, noting that the AER's *Ring-fencing Guideline - Electricity Distribution* prevents a DNSP conferring a competitive advantage to its related electricity service providers that provide contestable electricity services.[5] DNSPs would need to conduct arms-length competitive procurement processes whereby its related electricity service provider competes with other MCs.
- Create needless complexities around ownership and functions that will result in the full potential of smart cells being untapped. As noted by IPWEA "there are a wide array of features offered by smart public lighting controls beyond their energy and metering-related functions. There would therefore be little benefit in involving more parties and potentially, lots of additional complexity and costs in splitting ownership, contractual and management arrangements surrounding one smart public lighting controls system across a number of different parties."[6]
- Forego opportunities to achieve low-cost deployment. For example, Queensland's DNSPs have contracts with lighting product providers to install LED lights over the next 5-7 years, which could be leveraged to achieve lower costs for the installation of smart cells compared to other parties.

As part of their 2025-30 Regulatory Proposals submitted to the AER on 31 January 2024, Energex and Ergon Energy developed Smart Lighting Strategies which set out to offer smart cells on a user-pays basis from 1 July 2026. These strategies include, among other things, DNSPs' proposed tariffs and indicative prices, and the need to develop safe operating protocols in light of the evidence from pilots to be conducted in 2025.[7,] It is unlikely that third party providers would have such advanced strategies and carefully planned implementation in place, so the AEMC's draft proposal would slow down the deployment of smart cells.

Energy Queensland also notes the AEMC's comment in the Draft Determination that DNSPs wishing to serve in the role of MC for Type 9 metering installations for public lights can apply to the AER for a ring-fencing waiver. However, the Draft Determination does not examine the implications of this approach. The AEMC's and AER's views on arrangements for the appointment of the MP and Metering Data Provider (MDP), which the Draft Determination flags are contestable, are also unclear from a ring-fencing perspective. Furthermore, ring-fencing waivers for DNSPs (apart from those related to energy storage) only apply for the existing and next five yearly regulatory control period, so DNSPs will need to reapply for waivers. In our view, this proposal results in an, inefficient, and unnecessary and repetitive process that can be avoided by making adjustments to the Draft Rule.

Our strong preference is for contestability to be strictly limited to devices on customer-owned public lighting assets. Where DNSPs own public lighting assets, they should be allowed to perform the three roles of MC, MP and MDP, noting that where an entity is an MC and MP, it is more efficient for it to also be the MDP (particularly given the need for a shared central management system across the roles, with the MDP's role to deliver data from that system to the market). Also, as described in our response to the AEMC's question 6 further below, there are issues related to third parties working around distribution network assets.

[5] AER - Ring-fencing Guideline Version 3 - (electricity distribution) - 3 November 2021.pdf, page 1
[6] Microsoft Word - IPWEA SLSC submission on AEMC Directions Paper 14 Sep 23 - Clean, page 7
[7] Energex's proposed 2025-30 Smart Lighting Strategy and Energex's ACS Explanatory Statement - January 2024, pages 13-15

On new settlement arrangements

The Draft Determination provides that new Type 8 and 9 metering installations have a volume limit of 750 MWh per annum at the connection point (not the settlement point), noting that Type 8 meters are permitted at second settlement points for small customers, and Type 9 meters have the option of use at second settlement points for large customers. However, all other sites consuming up to 750MWh per annum at the connection point are required to have Type 4 metering installations. Given the differences in accuracy limits, Energy Queensland would welcome clarity around how the potential for misalignment between the measurement of CER exports at the primary and secondary settlement points will be managed.

On Type 8 meters

While Energy Queensland understands MPs would be appointed for Type 8 meters (in-built measurement devices), we have concerns that in some cases the metering installation may not be robust and therefore be unreliable. The National Measurement Institute should take this into account in its approvals process. This also highlights a more significant risk that manufacturers may assess the costs associated with the research and development, patterning approval, development of new bespoke inspection and testing requirements, and production of the in-built measurement devices as too high, particularly given the uncertainty around the uptake by customers and therefore the scale of this market. As a result, this new metering type may prove to be uneconomical compared to the ubiquitous Type 4 meter.

ENERGY QUEENSLAND GENERAL COMMENTS ON OTHER ISSUES

Management of the second NMI and standing data

Given that the DNSP will only interact with the primary FRMP, and that embedded network managers are responsible for applying for and registering Child NMIs and establishing and maintaining the associated NMI Standing Data in MSATS, we question whether it is appropriate for DNSPs to have been allocated these roles for secondary settlement points for CER.

Energeia's cost benefit analysis

Energeia's draft cost-benefit analysis for the large and small customer proposals has set the cost of DNSPs' system changes per year per device as negligible. However, it is our view that DNSPs' costs of system changes will be much higher than Energeia has indicated. A more appropriate value, based on DNSPs' considered feedback, should be included in Energeia's final cost benefit analysis and could materially raise the threshold of uptake at which the reform becomes cost effective.

In terms of Energeia's draft cost benefit analysis for the minor energy flows proposals, Energy Queensland highlights the cost benefit analysis conducted by Ironbark Sustainability to support the Smart Lighting Strategies underpinning the Energex and Ergon Energy 2025-30 Regulatory Proposals.[8] In our view, this is a more measured and realistic assessment of the costs and benefits associated with the deployment of smart cells, resulting in a positive net present value being limited to public lights located on major roads used primarily for the visual requirements of motorists. Again, there are costings and assumptions in this Ironbark Sustainability analysis, as well as the suite of supporting public lighting documents and pricing models submitted to the AER as part of the Energy and Ergon Energy 2025-30 Regulatory Proposals,[9] that could materially change Energeia's findings. The AEMC should take this into account as part of its Final Determination on whether to impose metering contestability where DNSPs own public lighting assets.

Timing of implementation

On the proposed commencement date for the rules of 2 February 2026, if the reform proceeds, Energy Queensland recommends a delay to July 2026 at the earliest.

We are concerned 18 months is not sufficient time to implement the rule change, given the breadth of proposed reforms, the AER's review of relevant guidelines and potentially contracts, the level of operational details to be resolved with AEMO and the National Measurement Institute, and the system and procedure changes that will be required of AEMO, distributors and retailers. Even AEMO's proposed delay of the rule commencement date to May

[8] Microsoft Word - Energex - 11.10 - Ironbark Smart Public Lighting Strategy - November 2023 - public (aer.gov.au), in particular Section 5.1 and Table 2
[9] Energex Proposal | Australian Energy Regulator (AER) and Ergon Energy Proposal | Australian Energy Regulator (AER)

2026 to accommodate consultation, delivery, and testing timeframes for Market Participants does not provide sufficient time for the AEMO related activities and therefore each of these timeframes should be extended.[10]

In addition, distributors and retailers in Queensland are often focussed on recovery from significant weather events during the late spring, summer and early autumn months. For example, there were widespread power outages for our customers due to Tropical Cyclone Jasper that impacted across North Queensland in December 2023, the severe storms and rainfall in South East Queensland from late December 2023 to early January 2024, and Tropical Cyclone Kirrily and the associated rainfall and flooding impacts across both Far North and South Queensland from late January to late February 2024.

Further, implementing major reforms in February of any year is also undesirable for retailers due to summer wholesale electricity price volatility.

Stand-alone power systems

On the stand-alone power systems (SAPS) generation metering issue identified by AEMO, Essential Energy and Energy Queensland, we are disappointed that the AEMC has not proposed the development of a solution through the Unlocking CER Benefits through Flexible Trading Rule Change process. The issue is limited to DNSPs that will roll out simple SAPS with one generating unit, where the DNSP will also be the Market SAPS Resource Provider (under generation revenue caps set by the Australian Energy Regulator). Undertaking a separate rule change process means further delay, locking in more costly remote communications for regulated SAPS deployed in the meantime.

[10] AEMO, Unlocking benefits of CER through flexible trading, Draft High Level Implementation Design, April 2024, page 20

AEMC QUESTIONS	ENERGY QUEENSLAND RESPONSES
2. What role, if any, should Meter Providers have in installing and managing Type 8 and Type 9 meters?	Please refer to the Energy Queensland comments on the minor energy flows proposals further above, where we set out our concerns about the proposed contestability of public lighting related metering services, including the roles of the MP and MDP, for public lights owned by DNSPs. Our response to Question 6 below is also relevant.
4. Are there instances in which aggregating multiple street lights under a single NMI via a central management system may create issues for settlement?	To avoid issues for settlement: • the aggregation of multiple public lights under a single NMI should be restricted to the same Transmission Node Identifier; • an aggregated NMI should not combine estimated and metered assets – the aggregation should be of only one type of asset; and • an aggregated NMI should not cover a combination of DNSP and customer metered assets.
6. Are there jurisdictional requirements for DNSPs to serve as MCs for street lights and street furniture which we should be aware of in preparing the final determination?	While not a direct jurisdictional requirement for Queensland DNSPs to serve as MCs for public lights and public furniture, we wish to draw the AEMC's attention to how Queensland's *Electrical Safety Act 2002* defines electric line work as including the installing and maintaining of public lighting circuits.[11] This is relevant to the role of MPs, particularly where that role is performed by an entity other than the DNSP. Queensland's Electrical Safety Regulation 2013 also sets out that an electrical linesperson licence authorises the holder to perform all electric line work, including the building or maintenance of public lighting connected to an overhead or underground electric line, plus the eligibility requirements for an electrical lineperson licence. In terms of exclusion zones for overhead electric lines, the Regulation also defines an authorised person for an electricity line, as including being approved by the person in control of

[11] Electrical Safety Act 2002 (legislation.qld.gov.au), Section 19

	the electric line to do work that involves contact with or being near to the electric line, or is authorised to act for the person in control of the electric line.[12] These Queensland safety-related requirements, along with the DNSPs' safety requirements around third parties working on DNSP assets, increase barriers for new market entrants, contrary to the market-promotion intent of the AEMC's proposed contestability for public lighting metering.

[12] Electrical Safety Regulation 2013 (legislation.qld.gov.au), Sections 36 and 43, and Schedule 2, Part 1, Section 1