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Director

Australian Energy Market Commission (**AEMC**)

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Dear Mr Chan,

### **NSW DNSP response to the AEMC's Review into CER technical standards draft report**

Ausgrid, Endeavour Energy and Essential Energy (NSW distribution network service providers (**DNSPs**)) thank the AEMC for the opportunity to provide a submission on its Consumer Energy Resources (**CER**) technical standards draft report (**Draft Report**).

CER integration is central to our customer's and the NSW Government's aspiration to reach net zero. It is also integral for facilitating a safe, reliable, efficient and renewable energy system. We are forecasting a large increase in CER on our networks over the 2024-29 regulatory control period (**2024-29 period**). For example:

- Ausgrid is forecasting connection of around 620,000 CER assets to our network over the 2024-29 period, and a further 1 million beyond 2029;
- Endeavour Energy is forecasting connection of around 402,000 CER assets to our network over the 2024-29 period, and a further 1.7 million beyond 2029 to 2040; and
- Essential Energy is forecasting connection of around 124,000 CER assets, excluding electric vehicles (**EVs**), to their network over the 2024-29 period. Conservative estimates forecast EVs to add a further 500,000 connections by 2037.

However, as the Draft Report and accompanying papers outline the regulatory powers for CER standards, accreditation and training, reporting, and enforcement (**CER installation framework**) are currently fragmented with powers and responsibilities split across jurisdictions State and Federal levels. Additionally, the contestable framework in NSW makes matters more complex relative to other jurisdictions. We understand from discussions with the NSW Government and the Australian Energy Market Operator (**AEMO**) that this has led to NSW's CER installation data reporting falling behind other jurisdictions.<sup>1</sup> We are committed to addressing these issues and are eager to work with the NSW Government and market bodies to develop a roadmap for a NSW CER installation framework so that NSW can become national leader in this area. This is also in the context of other jurisdictions moving ahead with state-based CER installation frameworks.<sup>2</sup>

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<sup>1</sup> We refer to AEMO's DER register data showing NSW compliance relative to other jurisdictions.

<sup>2</sup> For example, South Australia introduced a range of regulatory changes for smarter homes in 2020 targeting CER, including requirements around remote disconnection and reconnection. <https://www.energymining.sa.gov.au/industry/modern-energy/solar-batteries-and-smarter-homes/regulatory-changes-for-smarter-homes/>. And the Western Australian Government has a draft bill out for consultation to reform its current energy regulatory framework that includes technical standards for CER amongst other areas of energy reform). <https://www.wa.gov.au/government/document-collections/energy-and-governance-legislation-reform/>.

While the AEMC's draft recommendations provide helpful immediate to short-term actions and are a good pragmatic first step, given the regulatory challenges in this space, we suggest that they are unlikely to achieve the necessary improvement in CER installation compliance. This is because they are voluntary recommendations that do not fully address the underlying causes of non-compliance or they may not be the best approach for NSW's existing regulatory environment. We consider that this non-compliance relates back to a lack of a functional state or national regulatory framework for CER installation.

As such, recommendation 13, to progress national regulatory reform of the CER technical standards, including a national technical regulator, is the most important recommendation requiring immediate action. However, as acknowledged by the AEMC, the regulatory responsibility sits with jurisdictions because national bodies do not have rule making powers to carry out this reform.

Our response to the draft recommendations at **Attachment A** are framed with the limitations of the current regulatory environment in mind. **Attachment A** supports the intent of the draft recommendations however we propose that NSW create a state-based CER installation framework, that can be fed into a national framework if, and when, it develops. The urgency for a state-based approach is more important now than ever, as we understand that with the Clean Energy Council (**CEC**) is stepping away from CER accreditation.

Until there is a change to move safety and technical elements from state to national, then a comprehensive legislation for national CER installation framework is unlikely. This is demonstrated by the current fragmented status of CER installation frameworks in Australia. We therefore recommend a state-based pathway as the prudent, efficient and reasonable current approach, given the rapid rate of CER installation forecast in our network areas and with our 2024-29 period commencing 1 July 2024.

The fragmented nature of the oversight of the existing limited CER installation framework contributes significantly to the compliance issues discussed in the Draft Report and accurate AEMO DER register data. This ultimately hinders the efficient and effective transition of the energy system to net zero. We recommend that the market bodies and NSW Government implement a two-prong approach to:

- a. Develop a NSW-based CER installation framework to bring NSW compliance in line or ahead of other jurisdictions. This will ensure NSW does not fall further behind other states and enable compliance to be achieved as quickly and efficiently as possible; and
- b. Work towards a longer-term national approach with other jurisdictions through a national compliance body that jurisdictions can transition their state-based frameworks towards over time.

Our key recommendation is that AEMC and AEMO work together with the NSW Government to implement a state-based framework as outlined in more detail at **Attachment A** through the current review of the *Gas and Electricity (Consumer Safety) Act 2017* (NSW), associated regulations and the Service Installation Rules of NSW.

We welcome the opportunity to work with market bodies and the NSW Government to discuss our proposed approach for a CER installation framework in NSW and building a longer-term national approach.

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Yours sincerely,



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## **ATTACHMENT A: NSW DNSP RESPONSE TO DRAFT RECOMMENDATIONS FROM THE AEMC'S REVIEW INTO CER TECHNICAL STANDARDS DRAFT REPORT**

### **Stage one: simplify devices at manufacture and supply**

#### **Draft recommendation 1: Original Equipment Manufacturers (OEMs) to remove historical versions of CER technical standards from the settings menu for new devices**

The Draft Report suggests that Draft Recommendation 1 be implemented on a voluntary basis. While we support the intent of this recommendation as a positive step in the right direction, we instead encourage the AEMC to work with state governments to make this recommendation mandatory. Making the recommendation mandatory will provide the following benefits:

- Provide the appropriate level of inverter setting compliance from the outset by OEMs;
- Significantly reduce the risk of installers inadvertently inputting the wrong settings when installing new devices; and
- Reduce the level of training and compliance monitoring needed.

The mandatory removal of historical versions is likely a low-cost measure, that would limit the opportunities for installers to inadvertently program in incorrect or obsolete standards. The effectiveness of voluntary cooperation with this recommendation will be dependent on the participation of major OEMs. The challenge for OEMs and CER suppliers of how to voluntarily manage non-compliant inventories following a change to the technical standards may impact OEM participation and support for this measure.

We recognise that OEMs, many of whom are international, build devices to meet the needs of different international jurisdictions. However, we understand that mandatory settings are a common requirement in many jurisdictions. Additionally, other electrical products must meet mandatory requirements to be sold and used in Australia, making it difficult to justify why inverters should be treated any differently.

#### **Draft recommendation 2: OEMs to make 'Region A' setting on devices (which is used for mainland NEM jurisdictions) the default setting for new devices**

We support this recommendation as it is likely to significantly reduce compliance issues in NSW. However, installer training should still emphasise these settings to avoid a scenario of an installer being confused and choosing a setting other than the proposed default regional setting of Region A (which AS 4777.2 refers to as Australia A). This training should also cover areas subject to the other regional settings of Australia B or C for completeness. This recommendation should be mandatory because this will lead to better compliance outcomes as the most common setting is Region A.

#### **Draft recommendation 3: OEMs to remotely update devices where possible to remedy non-compliance**

We support this recommendation and would expect generally this would occur on a device-by-device basis. If bulk updates were proposed, then we recommend that this should only happen in conjunction with approval from the relevant DNSP if bulk updates are being sought to be made. This will ensure any unintended consequences on the network, such as voltage instability, are avoided and allow networks to monitor and act, as appropriate, to support our customers and the network.

Remote updates have the significant benefit of ensuring devices can be updated to comply with the latest version of the standards without requiring third-party manual intervention (e.g. CER installer site-visit). While this ability to future-proof against changes in the standards could facilitate a 'set and forget' approach at the installation stage, the benefits offset the risks; particularly in concert with the other recommendations being implemented.

Realising the compliance benefits of remote updates requires a significant proportion of OEMs/inverters to have this capability. While OEMs are more commonly providing this capability it may be worthwhile exploring making this mandatory to ensure the ability to orchestrate updates is built in for the inverter fleet as a whole.

We recommend that OEMs should be required to do a remote update if requested by either the customer or a DNSP. Currently DNSPs have limited means to compel an OEM to do an update given that only the customer will have any sort of direct contractual arrangement with them.

An alternative would be for OEMs to give customers and DNSPs visibility of their customers' inverters. This would enable the settings to be confirmed remotely.

### **Stage two: promote compliant installation**

#### **Draft recommendation 4: Make CER technical standards mandatory for New Energy Tech Consumer Code (NETCC) Approved Sellers**

We support this in principle, although we have yet to see evidence of its likely effectiveness. It targets sellers not installers. It is the responsibility of installers to input the correct settings and OEMs who ensure the device is capable of being commissioned with the correct settings. However, we acknowledge that the recommendation is likely to raise awareness and help reduce non-compliance because of everyone in the manufacture, retail and installation supply chain for inverters knowing what is expected, in addition to customers.

#### **Draft recommendation 5: Mandate CER technical standards training for Small-scale Renewable Energy Scheme (SRES) accreditation**

We support mandatory training for all installers and suggest this recommendation be combined with recommendation 6 to ensure training is provided to all installers. At this stage the SRES scheme is due to end in 2030 and focusing training on SRES installers only will be of increasingly limited value as the financial incentives for participating in the scheme diminish.

Essentially, SRES accreditation is just one part of the CER installation framework. As such, we recommend that installers become accredited through a single NSW Government body. This body would provide appropriate training and guidance. Maintenance of accreditation could then be linked or extended to include compliance with CER Technical Standards. See our response to Draft Recommendation 6 for more on the recommended approach. However, while the current regulatory frameworks are in place, we support mandatory training for SRES accreditation being included in this requirement.

#### **Draft recommendation 6: Funded training on CER technical standards to be provided for installers**

While we support this recommendation, we do not necessarily agree that training should be provided by DNSPs. In NSW, it would triplicate the training required for installers wanting to work across all 3 distribution network areas. Further, under NSW regulations, installers must be either a NSW licensed builder or licensed electrical contractor. As such, DNSP training would duplicate existing accreditation training processes.

Instead, we recommend that standards training be built into training for the state-accreditation processes and any ongoing training requirements to maintain licensed builder and licensed electrical contractor certifications. DNSPs can then be funded to support and provide input to training and accreditation processes. For example, to ensure that the training is compliant with our networks and processes. Successful completion of this training should be mandatory prior to achieving accreditation.

We note that DNSPs in other jurisdictions, such as SA Power Networks (**SAPN**), are developing online induction-type training, along with incentives, to ensure installers understand and comply with their reporting obligations. This could provide a model for NSW licensing as a required component of the broader NSW training curriculum for builder and electrical contractor licence certifications.

We note that if this training were to be provided by DNSPs then it would need to be recovered as operating expenditure (**opex**) through the Australian Energy Regulator's (**AER**) service classification and regulatory determination process. We note that timing is inopportune for this as NSW DNSPs have submitted our 2024-29 regulatory period proposals on 31 January 2023 and the AER determination will commence on 1 July 2024. For example, the AER's proposed service classification does not contemplate NSW DNSPs providing this training.

In the longer term, we consider that a national training framework could be developed to apply the same technical standards nationally, however this would likely require national approaches to builder and electrical licencing certifications to ensure consistency across jurisdictions.

**Draft recommendation 7: Clean Energy Council (CEC) to provide guidance on CER technical standards for installers**

We note that the CEC is withdrawing from being the accreditation body for CER installations and will be replaced by a new body appointed by the Clean Energy Regulator. However even then such a body will not be responsible for accrediting all installers of solar panels given the narrow scope of the SRES scheme. As a result, in the absence of a national accreditation body with enforcement capabilities, we support the AEMC recommending a state-based accreditor under the *Gas and Electricity (Consumer Safety) Act 2017* (NSW) and Service Installations Rules in NSW. We note that this Act and Rules are currently under review and that this function could potentially sit within NSW Fair Trading. This is an appropriate approach given the licensing for individuals is a jurisdictional responsibility and so it is currently more logical for the NSW responsible agency for accrediting installers to be state-based, and they would then provide this guidance and training either directly or through existing NSW government bodies.

In the longer term a national accreditation body could form, but we do not see this as a pragmatic next step for NSW, given the challenge of ensuring compliance with the CER technical standards within the contestable NSW framework. The state-based body could be an existing government agency or new body and could also be funded to monitor and enforce installation compliance and could provide step-by-step guides for installation developed in consultation with OEMs.

**Draft recommendation 8: DNSPs to introduce commissioning sheets for CER devices**

If our recommended approach to recommendations 6 and 7 were to occur, then there is no need for commissioning sheets for CER devices as the relevant NSW accreditation and training body would provide this.

We note that CER installers are already obligated to collect and input CER device information into AEMO's CER Register and introducing commissioning sheets could add a duplicative administrative burden on installers. It is also unlikely to be effective given CitiPower, Powercor & United Energy, who have gone down this pathway and have to date experienced limited success in obtaining valid commissioning documents. There is also the issue of trying to reconcile different OEM and DNSP commissioning requirements.

To support this draft recommendation, we instead recommend that AEMC work with NSW Government through the current review of the *Gas and Electricity (Consumer Safety) Act 2017* (NSW) to ensure that Certificates of Compliance for Electric Work (**CCEWs**) in NSW be updated to include a 'CER Technical Standards' data field.

Updating CCEWs would provide DNSPs, customers, NSW Fair Trading and AEMO with confirmation that the device settings comply with the relevant technical standards. This also enables the standards for installation to explicitly require compliance with AS4777.2, AS3000 and the Service and Installation Rules in NSW.

The benefit of using CCEWs enables the NSW Government to draw on NSW Fair Trading's compliance and audit powers. For example, this would include penalties and other regulatory actions if audits reveal non-compliance to technical standards and/or require CER installers to return to the site to make the installation compliant.

SAPN's new mandatory digital close out approach could also be a model which could form an additional validation point for the state-based accreditation body and AEMO. However, it would be subject to working through jurisdictional differences and effectiveness.

### **Stage three: support ongoing compliance**

#### **Draft recommendation 9: Accelerated smart meter rollout with improved data access**

We support this recommendation, but its success is dependent on the outcome of the data strategy reforms, and giving DNSPs improved access to smart meter data to enable compliance to be monitored and rectified more easily. To the extent all of this data must be the subject of commercial negotiation with metering providers, it is unlikely to be cost-effective, efficient or complete based on our experience to date where some retailers have restricted their metering providers from being able to provide DNSPs with any data, irrespective of cost.

It also represents an additional market cost transaction for customers to bear in an increasing cost of living crisis for energy bills. We recommend that the AEMC and NSW Government work with customer advocates on the best pathway forward for accelerating smart meter rollout in NSW, along with improved smart meter data access.

In this regard, another potential short-term solution that could be part of the AEMC's recommendations is to encourage DNSPs to develop dynamic connection agreements (**DCAs**) to allow the DNSP to have the settings in newer CER installations (inverters compliant with IEEE 2030.5) made to permit dynamic export limits. This is because DCAs, as an opt-in service, allows DNSPs to manage inverter settings to facilitate higher export capability, when the network can accommodate it, using dynamic operating envelopes (**DOE**). However, we note that this would take time to implement and would not be applicable to all circumstances as it only targets newer installations, necessitating broader smart meter acceleration reforms.

DCA arrangements will have many benefits for both networks and customers. Higher export limits at times of excess network capacity will provide customers with a higher return on their CER investments, while allowing DNSPs more efficient management of network assets. The higher returns incentivise installers and customers to ensure accurate completion of CER registration and ensure compliance to enable DNSP control of the inverter to maximise returns.

This solution will require DNSPs to invest in distributed energy resources management systems (**DERMS**) and metering data intelligence systems to enable them to offer DOEs. It will also require access to near real-time network intelligence data provided by smart meters.

These benefits however, as flagged, will only be achieved through reform of the smart meter data access regime, which currently places monopoly control of the data in the hands of meter data providers. The combination of DCAs and DOEs, along with near real-time metering intelligence, will provide customer incentives for compliance, while equipping DNSPs with the intelligence to identify non-complaint systems and have the ability to rectify them in the interests of the customer and network management.

#### **Draft recommendation 10: OEMs to provide DNSPs with access to compliance data**

We agree with this recommendation and reiterate our response for recommendation 9.

#### **Draft recommendation 11: DNSPs develop a defined process for contacting and assisting non-compliant consumers**

While we support this draft recommendation, we note that it is not strictly necessary as we already have internally defined processes for contacting and assisting customers with non-compliant installations. It is not the process, for contacting and assisting consumers, that is ad-hoc, it is the nature by which the DNSPs become aware of non-compliance that is ad-hoc.

For example, DNSPs generally become aware of non-compliance through one of two mechanisms: either through inspection, or the customer or other customers reporting of a fault. To assist customers, DNSPs require access to the inverters installation data to determine whether an installation has been configured and is operating in a compliant manner.

We note that this is currently a time-consuming and manual process that involves contacting the relevant OEM and either seeking access to their cloud-based solution to access the relevant data or having them check it and then asking them to remotely update the settings. A better approach would

be a holistic cloud-based solution that allowed DNSPs to check settings of any OEM and request remote updating if the device is found to be non-compliant.

DNSPs do not have formal or direct compliance powers and responsibilities for CER installation in NSW to compel installers to rectify an issue. Additionally, NSW DNSPs are not funded to do so, nor is it part of our service classification under the AER's regulatory framework. Practically, in addressing these issues we are only able to work directly with the customer as DNSPs have powers to defect a customer's CER installation for not meeting the connection requirements or if there is a safety issue.

However, we emphasise that if the customer is unable to get the installer to rectify the issue, then we have limited options other than disconnecting the customer which would be difficult to justify for CER installations, resulting in poor customer outcomes in either scenario. This is why we recommend that this function sit with the proposed NSW CER accrediting body for the CER installation framework.

**Draft recommendation 12: Jurisdictions to consider establishing programs to subsidise consumers with the re-configuration of their non-compliant devices.**

We do not think that this recommendation will be efficient or effective. This is because of the difficulty of co-ordinating such programs across jurisdictions and the likelihood of achieving universal coverage. It also gives installers a free pass for an issue that they have created and should be rectifying, as opposed to the customer or the network.

A better approach would be to focus on reducing instances of non-compliance through recommendations 1-8, while linking new incentives in an updated system, such as strengthening consumer protections through warranties and guarantees that the installation has been conducted in a compliant manner. This approach is likely to be more successful at reducing non-compliance to all but the most extreme cases and result in a better customer journey for customers.

**Draft recommendation 13: to progress regulatory reform**

Finally, we support urgent regulatory reform so that the gap between NSW and other jurisdictions for CER installation compliance does not continue to perpetuate.

Market bodies and the NSW Government have a timely opportunity ahead of our 2024-29 period regulatory determination to ensure that this period is a sprint towards CER installation compliance to ready the state for the current increase in CER that is forecast to exponentially increase in subsequent periods. This will enable the development of a national approach in the longer term, with appropriate national regulation once jurisdictions are operating on a more equal playing field of existing compliance. Importantly, electricity technical and safety regulations reside with states and so any national framework needs to be built from those foundations.

We welcome the opportunity to work with market bodies and the NSW Government to develop a state-based CER installation framework through the legislated review underway of *Gas and Electricity (Consumer Safety) Act 2017* (NSW), associated regulations and the Service Installation Rules in NSW.