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Submitted electronically to cerdataexchange@aemo.com.au

Clean Energy Council Submission to the Australian Energy Market Operator's Consumer Energy Resources Data Exchange Consultation Paper

Dear AEMO Team,

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Australian Energy Market Operator's (AEMO) Consultation Paper on the *Consumer Energy Resources (CER) Data Exchange Industry Co-Design.*

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.

The CEC is supportive in principle of the development of the CER Data Exchange to facilitate the exchange of information between organisations to address existing challenges and reduce barriers for future participants. CER is an integral part of Australia's secure, affordable and sustainable future electricity system and we view the development of the CER Data Exchange as an important step in achieving a transition that prioritises consumer outcomes and rewards participation.

We emphasise the importance of prioritising use cases with near term benefits or the ability to solve an issue that is expected to arise. Throughout the industry co-design process, the CEC proposed an additional use case, highlighted in the Consultation Paper as the "Stakeholder Use Case," further information on the background, proposed solutions and future considerations are outlined below.

Consideration of the CEC Stakeholder Use Case

The CEC proposed the inclusion of the Common Smart Inverter Profile Australia (CSIP-Aus) testing and certification as an additional use-case, related to the dynamic operating envelope (DOE) use case. This aims to address the growing inconsistencies in how CSIP-Aus is being deployed for both emergency backstop mechanisms and flexible exports/ DOEs across different distribution network service providers (DNSPs). We are supportive of the DOE use case, but we see that a necessary first step is in aligning all functions around testing and certification into a single platform.

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Background

Emergency backstop mechanisms have now been deployed in South Australia, Western Australia, Queensland and Victoria, with New South Wales (NSW) aiming to introduce an emergency backstop mechanism for solar exports ahead of Spring 2025.

Apart from Queensland, all states have chosen to introduce a remote signal for constraining solar export, with the underlying communications framework coming from CSIP-Aus – a document originally developed for use in South Australia which has since been used in other jurisdictions.

It is important to recognise the etymology of CSIP-Aus. It was originally developed as a DNSP led and industry supported document through an application programming interface (API) Working Group originally set up by South Australia Power Networks.

This group had no official regulatory standing, and the CSIP-Aus work was primarily funded through the Australian Renewable Energy Agency (ARENA). The document itself sat as an ARENA knowledge sharing report. It is in the process of being turned into an Australian Standard Handbook. A test protocol has only just been released to accompany CSIP-Aus and has not yet been used by any agency (so the efficacy is not yet known).

Issue

In the absence of a test protocol, the CEC has observed that even drawing on CSIP-Aus as the underlying communications framework, the implementation has differed in every state / DNSP jurisdiction that it has been employed for emergency backstop mechanisms. This trend is likely to continue and be exacerbated with the expansion of flexible exports/DOEs in other jurisdictions.

What has become clear is:

- There is no alignment on the CSIP-Aus commands used for emergency backstop.
- CSIP-Aus contains a multitude of different commands used to direct specific behaviour from inverters.
    - A number of these commands relate to the constraint or curtailment of solar output. To date there has been no work done on aligning on a definition of “Emergency Backstop Mechanism” and as a result there has also been no alignment on the specific command used to achieve “emergency backstop” outcomes.
- There is no singular approach to designing and testing of platforms used for providing emergency backstop (and flexible exports/ DOEs).
- There is no process for testing platform/ utility server compliance against CSIP-Aus.
    - In all states, emergency backstop mechanisms have been introduced quickly. Platforms have been built quickly to serve a purpose, but have not necessarily had the rigor of being tested and certified to CSIP-Aus.

The outcome of these points, coupled with the lack of a recognised test protocol, is that every DNSP has released their own “Test Protocol” relevant to their own platform, and Original

Equipment Manufacturers (OEMs) have needed to be tested and certified in each DNSP jurisdiction they operate in, requiring years of work and rework.

Proposed Solution

The CEC is trying to achieve a single platform that can be used to hold data on products that are tested and certified to CSIP-Aus – both utility servers that provide the basis of the integration between DNSPs and OEMs, as well as OEMs directly.

Testing should be done against a long list of commands for both emergency backstop mechanism services and flexible exports/DOEs. Services for certification within the platform should be the only services asked for from DNSPs (i.e. additional services requested by DNSPs can only be done through updating the CSIP-Aus version and the test protocol).

DNSPs will be able to remotely verify that a utility server platform and/or OEM is certified through the platform, confirm these services and not need to go through any additional testing or certification (a simple onboarding process would be all that is required).

This would be used for both the current version of CSIP-Aus and future versions that are currently under development, proposed or might be developed in the future.

Additional Considerations

We recognize that using the CER Data Exchange for CSIP-Aus testing and certification is unlikely to solve the near-term issues in NSW as it looks to implement emergency backstop mechanisms (due to timing), but we think it is a valuable long-term option that should be explored.

The following considerations need further discussion to make this a feasible use case:

- Will AEMO hold the testing functionality itself or partner with a certified test body? If the former, what would this look like from a regulatory standpoint?
- If AEMO effectively just holds the list of certified products, how do we make sure the data on the product functionality is suitably shared to give DNSPs confidence that a product is fully certified and does not require any additional tests to provide services?
    - The CEC views that a Data Exchange capable of sophisticated data sharing is preferred to a static list in this respect.
- How best can we ensure all DNSPs will be aligned with this approach?
- How might this approach be retrospectively applied to existing systems and DNSPs already using the current version of CSIP-Aus?
    - The main priority for the CEC is improved jurisdictional consistency and we would want to avoid any rework or retesting of systems to align with a single platform approach.

A visual representation of the CEC's proposed use case as an extension of the DOE use case can be found in Appendix A. The following section outlines the CEC's response to specific consultation questions outlined in the paper. We commend AEMO's commitment to co-design through the Expert Working Group and Industry Workshops and look forward to further engagement in 2025.

Response to Consultation Questions

Priority Use Cases - *Do the identified priority use cases effectively address immediate data sharing needs, and are there any additional use cases you would recommend prioritising?*

The identified priority use cases across System Operation & Security, Market Efficiency & Performance and Customer, Asset & Actor Records effectively address a broad range of immediate data sharing needs. We agree the three high-priority use cases are critical for optimizing network usage, enhancing local network service offerings and ensuring accurate data for coordination and compliance.

Priority Use Case 1

The CEC views "Sharing Network Limits" as tying in directly with our proposed use case. All network limits shared by DNSPs are based on CSIP-Aus, so it makes sense to include the additional functionality of CSIP-Aus testing and certification so the CER Data Exchange can provide a complete platform solution. We encourage the prioritisation of the CEC stakeholder use case in tandem with this proposed priority use case.

We're also supportive of the CER Data Exchange being used for this purpose. The "*Integrating Price Responsive Resources in the NEM"* Rule Change raised considerations with how the proposed Virtual Power Plant (VPP) dispatch mode would be able to practically interact with network service provider flexible export limits. The CER Data Exchange could provide a practical solution for this. The CEC would be interested in exploring this use case in more detail as the practical implementation of Dispatch Mode gets worked through.

We understand there may be the need for further consideration around responsibility for exchanging data for network management and system security use cases. We encourage AEMO to consult with industry, including network service providers to best determine impacts on information sharing.

Priority Use Case 2

While the CEC is supportive of "Supporting Local Network Services" it is encouraged ongoing consultation regarding uptake and usage with network service providers is explored. An additional practical use might utilize this platform for any VPP contracts related to minimum system load, like transitional agreements, and then AEMO commands can be sent directly through the Data Exchange. We also encourage consideration around general payments for emergency backstop services through this channel.

Priority Use Case 3

The establishment of "Consistent CER Standing Data" to create a common point for agents to access and share verified CER asset data is both an important immediate use case and will allow greater ease for new participants in the future. Standardisation of CER data will provide

consistency and efficiency in proving compliance with standards, even as firmware updates are undertaken. The stakeholder feedback outlined in Table 1 is shared by the CEC and highlights the expected positive outcomes of this use case.

Strategic Use Cases - *How do you view the long-term value of the strategic use cases and are there specific outcomes you would like these use cases to achieve in the future? Also do the strategic use cases sufficiently complement the priority use cases? Do you have any feedback on when these use cases should be implemented?*

The strategic use cases complement the existing priority use cases and provide a framework for the CER Data Exchange to build capacity and scale up over time. The addition of these use cases allows depth and flexibility, reflecting the CEC's preference that the Data Exchange can be adaptable as the market evolves. We recommend the timelines shown Figure 17 for the priority and strategic use cases be explored further in the Implementation Roadmap and Design, based on additional feedback from the Expert Working Group and industry consultation.

Additional Use Cases - *Are there additional or alternative use cases that would enhance the CER Data Exchange's outcomes?*

The CEC's main contribution to additional use cases for the Data Exchange has previously been outlined and it is present in the Consultation Paper. It is our preference that the stakeholder use case, along with the priority use cases, are initially put into place prior to the addition of more use cases. Once co-design is completed and the Data Exchange has been developed, we recommend that AEMO provides the opportunity for stakeholders to suggest potential additional use cases or alternative approaches to the current ones. This could be undertaken through regular industry consultation or an annual review of the Data Exchange.

Prioritisation - *Do you agree with industry preference that the CER Data Exchange should be designed with narrow capability initially but have the flexibility to expand in the future?*

The CEC feedback during the Industry Co-design Workshop recommended that the CER Data Exchange should prioritise key use cases with narrow capability to initially demonstrate value to stakeholders. We encourage flexibility within the design and consideration of the application of the Data Exchange, however this should leverage existing capabilities and systems, reducing development time and ensuring the priority use cases can be applied as soon as possible. This should accelerate the implementation of near-term uses cases, whilst reducing unintended costs. We are satisfied that AEMO has incorporated this feedback with the shortlisting and categorisation of priority use cases.

Capability - *Do the proposed data sharing capability discussed above support both current and future CER data sharing use cases? Please nominate what essential data sharing capability would be required?*

The proposed data sharing capabilities outlined in Table 6, adequately support the operation, security and regulatory needs of the current and future CER Data Exchange use cases. Information security will be a key priority to ensure there is data protection and trust amongst

stakeholders, enabling industry buy-in and the ongoing success of the Data Exchange. The stakeholder preference for strong privacy measures aligned to global security benchmarks without a complicated process that locks out industry participants is shared by the CEC. This also extends to data governance, ensuring that data sharing maintains accountability and upholds existing privacy laws.

The CEC considers format standardisation and platform interoperability paired with access management essential in ensuring accessibility of the Data Exchange without compromising security and compliance. There should be clearly defined roles and responsibilities, as part of the access management capability, outlined in AEMO's high level implementation and design.

Custom data formats, advanced data validation and batch vs. real-time process will allow for flexibility in data-sharing and the accommodation of a wide variety of use cases. These data sharing capabilities will positively influence the "usability" of the Data Exchange and will be important when expanding application but may not be critical in the early implementation process.

Ownership Preferences - *Which ownership model do you believe is best suited for the CER Data Exchange: Industry-led consortium, **AEMO-led**, or a New Independent Government Agency? Do you have feedback on the models in addition to those summarised in this paper? Are there other ownership models not listed in this paper that you would like us to consider?*

The CEC is supportive of the AEMO-led ownership model that would leverage existing and future infrastructure. The model will ensure AEMO's established expertise and knowledge surrounding the Data Exchange is utilised and will result in a faster implementation timeline compared to a new independent agency model. Majority of the CEC feedback on this topic has already been adequately summarised in the consultation paper and given in Expert Working Group meetings and Industry Co-design Workshops.

Oversight – *prescription vs discretion - What level of oversight should apply to the CER Data Exchange? Should its operation be heavily prescribed, or should it be provided with operational discretion?*

When considering Figure 21, outlining the "Level of Prescription" the CEC's preferred model falls between the midline and highly prescriptive. We believe this will allow for a balanced regulatory approach, creating stability within the initiation of the Data Exchange, while allowing adaptation to new market demands and use cases. Despite the importance of fast implementation with reduced unnecessary costs, higher oversight will ensure there is initial trust from industry and provide more guidance on key aspects of operation.

Oversight body - *Who should be responsible for overseeing the CER Data Exchange's operation? Are there other models of oversight that you would like considered? How important is regulatory independence in overseeing the CER Data Exchange, and would a new dedicated oversight agency or body better support transparent, impartial governance?*

As the CEC has advocated for an AEMO-led ownership mode, we believe the most appropriate regulatory oversight would be existing regulators and market bodies, creating alignment with

the National Energy Objectives (NEO) and established legislation. This would allow consistency with current AEMO governance mechanisms and ensure the CER Data Exchange benefits from the same regulatory compliance processes that currently exist. Additionally, the CEC is supportive of industry feedback in the oversight process, reducing the risk of conflicts between the purpose of the CER Data Exchange and AEMO's core objectives.

While a new dedicated oversight agency may support more transparent governance, this approach is not streamlined and has the potential to extend implementation timelines with a high cost and extended set up period.

Data Governance Preference - *Which data governance model best aligns with industry's desire for trust, compliance, and flexibility?*

The establishment of a defined governance framework will be essential for stakeholder trust and confidence in the CER Data Exchange. This model should reflect industry expectations around flexibility but prioritise consumer interests and consistent enforcement. In the consultation paper, Model C appears to provide the best trade-off between flexibility and building public trust. This would allow the development of organisational expertise around CER data, standards and compliance as well as create a single source of truth for industry.

We are supportive of the strong regulatory compliance and consistent enforcement within Model C, without vulnerability to political risk or stakeholder participation. This will ensure operational transparency with a reduced implementation timeline compared to a new CER Data Governance Authority.

Adaptability - *In your view, how should the data governance model support the integration of new use cases as CER technologies and industry demands evolve?*

While Model C is the preferred data governance model, we encourage aspects of Model B to be incorporated, such as an industry committee/steering group to develop and support the integration of new use cases as CER technologies evolve. This could follow a similar model to AEMO's Financial Consultation Committee, containing a combination of industry body and consumer representatives. The inclusion of a Data Exchange Committee or Steering Group would provide industry and consumer driven direction and innovation, while supporting adaptability to market needs.

Stakeholder Engagement - *How frequently and in what format should the data governance framework engage stakeholders on changes to standards, compliance requirements, or new use cases?*

We recommend the data governance framework should engage stakeholders at multiple levels when changes to standards, compliance requirements or use cases occur. This would include the establishment of Data Exchange Committee or Steering Group as outlined above for regular consultation and feedback with an expert group. This group would have initial input on the design and implementation of changes and be representative of diverse industry and consumer perspectives.

Once changes have been proposed, we encourage open industry consultations in the form of workshops, public forums and written submissions. The consultation period should aim to be open for a minimum of 6 weeks to ensure there is adequate time to respond. We commend AEMO on their engagement of industry in the co-design of the Data Exchange and hope to see this format continue in the future.

Phased Implementation Roadmap - *Do you agree with the proposed phased approach for the CER Data Exchange implementation? What adjustments or considerations would you suggest to better align the phases with the needs of your organisation?*

It is encouraging to see the proposed implementation roadmap builds off existing examples, such as the UK's Digital Spine, to reduce uncertainty and allow for a gradual expansion of capability over time. A phased roll out will provide opportunities for industry feedback throughout implementation, ensuring there can be testing and refinement of use cases prior to expanded user participation.

We recommend the Foundational Phase seeks to provide proof of concept through regular information sharing with industry. This could be achieved through the release of initial pilot results, annual reporting, an ongoing CER Data Exchange newsletter, use-case specific webinars, presentations at industry events and industry working groups (e.g. the CEC's Distributed Energy Directorate). This will establish confidence around the core infrastructure and reduce ambiguity when transitioning to the Expansion Phase.

If you have any queries or would like to discuss the submission in more detail, please contact Con Hristodoulidis (christodoulidis@cleanenergycouncil.org.au)

Kind regards,

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Director of Distributed Energy
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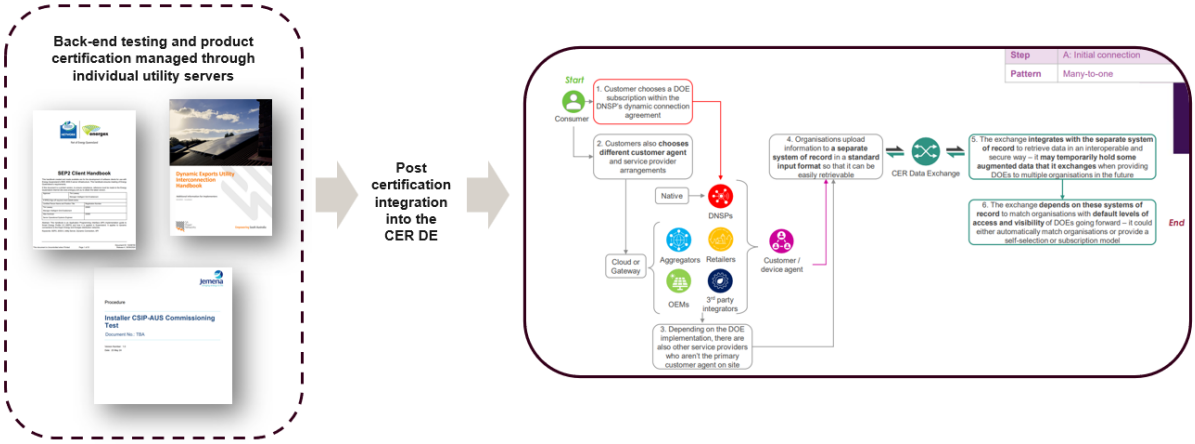
Appendix A: CEC Use Case – Detailed Data Journey

Current Counterfactual



CER Data Exchange Inclusion