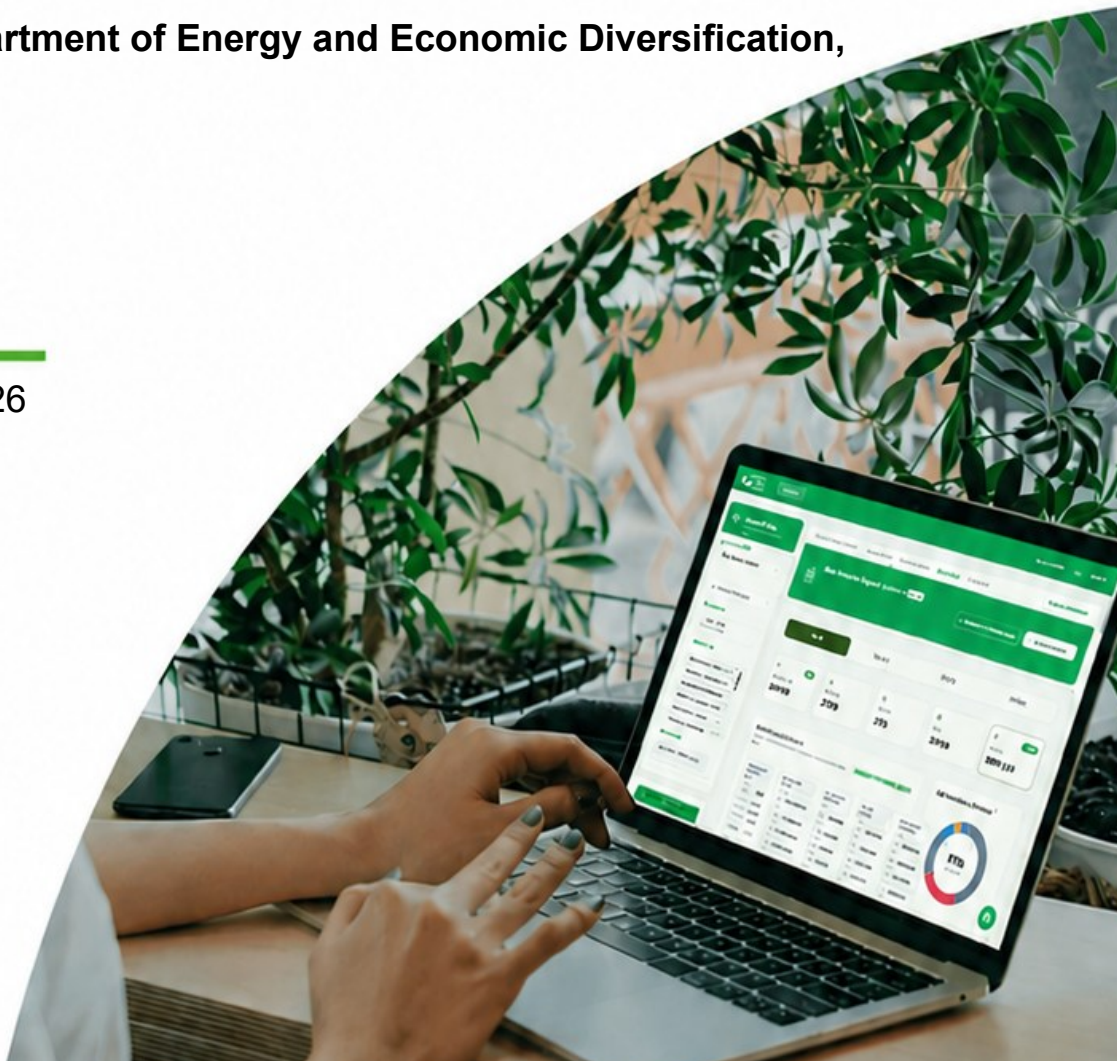
Climate Change Response

Climate Change Response Pty Ltd

Submission on the Issues Paper: Making it easier to connect solar, batteries and EV chargers

Submitted to: Department of Energy and Economic Diversification, Energy Policy WA



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1. Executive Summary

Climate Change Response (CCR) welcomes the opportunity to provide feedback on the Issues Paper **Making it easier to connect solar, batteries and EV chargers**.

CCR supports the overall direction of the proposed reforms. The Issues Paper appropriately recognises that Western Australia's rapid uptake of distributed energy resources (DER) is creating a growing need for reliable, consistent and usable information across the electricity system. It also correctly identifies that better data can support more efficient connections, better network planning, increased renewable energy integration and greater participation by customers and businesses in the electricity system.

These reforms sit within Project Jupiter, the Government's $108 million program, part funded by the Australian Renewable Energy Agency (ARENA), to accelerate rooftop solar and battery integration into the SWIS. They follow directly from the findings of Project Symphony, which identified more than $920 million in potential value from DER orchestration over the coming decade.

CCR considers the proposed reforms particularly important as DER moves beyond predominantly passive rooftop solar towards a more diverse mix of:

- solar PV and battery storage;
- EV charging;
- flexible exports and dynamic operating envelopes;
- commercial and industrial DER;
- embedded and multi-meter energy environments; and
- VPPs and other forms of coordinated DER.

The Issues Paper's three-principle framework is therefore appropriate:

improve DER standing data → make commercial DER easier to connect → improve visibility of VPP capability and opportunities.

CCR supports all seven proposals, subject to the practical recommendations set out below.

CCR's principal recommendations are to:

1. Support CSIP-AUS adoption while maintaining a clear distinction between interoperability and data governance.
2. Give the DSO clear, proportionate obligations for DER standing-data collection, validation and sharing, with common definitions and clearly identified responsibilities.
3. Use existing installation and electrical-safety processes to improve EVSE visibility without creating barriers to EV adoption.
4. Design the proposed commercial DER pathway around standardised data and commissioning, while accommodating integrated solar, batteries, EV charging and energy-management systems.
5. Make network-capacity information sufficiently useful for project planning, including through broader aggregate forecasting, historical information and spatial visibility.
6. Support DEED's proposed concept of controllable VPP capacity rather than relying on nameplate capacity as a proxy for actual system capability.
7. Develop spatially useful network and VPP information that enables businesses, aggregators and other participants to identify opportunities while protecting customer privacy.

CCR also encourages DEED to maintain the Issues Paper's proportionate approach. The Paper appropriately recognises that the SWIS is structurally simpler than the NEM and that WA can achieve meaningful improvements without prescribing a single, complex data-exchange platform.

2. CCR's Perspective

CCR operates across energy management, smart metering, embedded networks, distributed energy resources, renewable energy systems and data-enabled energy solutions.

This provides CCR with a practical perspective on the increasing interaction between energy consumption, onsite generation, storage, EV charging, metering, network conditions and energy-management systems.

CCR's view is that the energy transition is changing the role of the customer site.

A commercial building, industrial facility or multi-tenant development may increasingly contain several interacting energy assets rather than a single electricity load. These may include rooftop solar, batteries, EV charging, multiple meters and energy-management systems.

The regulatory framework does not need to regulate these assets as one technology. However, it should allow their connection, data and operational characteristics to be represented consistently when they operate as part of the same energy environment.

This is particularly relevant to the Issues Paper's focus on commercial DER, where improving data quality and reducing manual connection steps are intended to remove barriers to larger but relatively routine DER installations.

3. Overall Response

CCR supports the Government's overall approach.

The Issues Paper identifies an important distinction between improving data outcomes and prescribing a particular technology platform. DEED notes that bespoke solutions can increase costs and fragmentation, but also concludes that improving DER data does not require a single new technology solution. Instead, it proposes a sequence of foundational improvements to build digital capability over time.

CCR supports this approach.

The immediate priority should be to make the underlying processes work reliably:

standardise → collect → validate → share → use.

Once those foundations are reliable, further digital capability can evolve without prematurely locking the sector into a particular technical architecture.

This is consistent with the lessons from Project Symphony. The $35.5 million pilot, part funded by ARENA, demonstrated the feasibility of DER orchestration and identified more than $920 million in potential value from DER orchestration over the coming decade, while identifying interoperability and data exchange as important requirements for scaling DER participation. Its recommendations included CSIP-AUS and a DER Data Hub concept for efficient exchange of DER information.

CCR notes that the Electricity Industry Amendment (Distributed Energy Resources) Act 2024 provides the legislative basis for these reforms, particularly sections 124E to 124H covering distribution connections, technical standards, metering and data. CCR also notes that Western Power's next Economic Regulation Authority funding period commences on 1 July 2028, with its regulatory reset submission due in February 2027, and recommends that the detailed regulatory proposals be sequenced so that Western Power can reflect any new DER data obligations within that submission.

CCR therefore supports the Issues Paper's preference for practical, staged reform rather than attempting to implement a complete future-state DER data platform through the immediate rule changes.

4. Response to the Seven Reform Proposals

4.1 Reform Proposal 1: Require inverters up to 30 kVA to be CSIP-AUS v1.2 enabled

CCR position: Support

CCR supports the proposed extension of CSIP-AUS v1.2 to customer sites up to 30 kVA.

The proposal would harmonise smaller DER systems around a nationally agreed communications protocol regardless of retailer and could improve consistency in onboarding and access to basic standing information.

CCR considers this particularly valuable because interoperability is increasingly important as DER moves from stand-alone equipment towards coordinated operation.

CSIP-AUS should, however, continue to be understood as an **interoperability and communications standard**, rather than as a complete DER data-management framework.

The regulatory approach should therefore ensure that:

- the same core asset information can be consistently associated with the connected system;
- CSIP-AUS information can be used to validate relevant standing data;
- installation and commissioning information can flow efficiently to the DSO and relevant parties; and
- implementation does not create a new source of connection delays.

The current national CSIP-AUS framework provides testing and certification mechanisms intended to improve consistent implementation of TS 5573:2025.

CCR also notes the Issues Paper's clarification that the proposal concerns the communication method and **does not prescribe a particular battery storage control method**. On this basis, CCR recommends CSIP-AUS be used as the common interoperability layer while maintaining clear, technology-neutral requirements for associated standing-data collection and validation.

4.2 Reform Proposal 2: DSO functions to collect, validate and share data

CCR position: Strongly support

CCR considers Proposal 2 to be foundational.

The Issues Paper identifies specific existing problems, including incorrect capacity ratings, duplicate systems against the same meter, upgrades incorrectly treated as replacements and limited visibility of DER information outside distribution-network energy-management systems.

This indicates that the issue is not merely a lack of data. It is a **data quality and responsibility issue**.

CCR supports establishing clear obligations for Western Power to collect standing data at installation, validate it and share it with relevant participants. The Issues Paper proposes minimum requirements in the ESM Rules, with detailed fields subsequently established through a WEM Procedure.

CCR recommends that the detailed framework clearly address four matters:

Defined minimum data

The minimum dataset should be sufficient to identify the type, characteristics, capacity and location of the DER relevant to network planning.

The Issues Paper already identifies useful categories including:

- system type;
- manufacturer and model;
- generation/storage capacity;

- NMI and installation information;
- phase configuration; and
- spatial information.

Data validation

Responsibility for validation should be explicit.

There should be a clear distinction between:

data provided by an installer or customer and **data validated by the DSO or another authorised party**.

CCR's experience delivering monitoring and data validation platforms for commercial and industrial energy customers indicates that automated validation against live system data, rather than manual review alone, can materially reduce reconciliation effort for both the DSO and connecting parties, and may be a useful reference point as Western Power designs this function.

Data updates

The framework should recognise that DER information can change when systems are upgraded, replaced, reconfigured or otherwise modified.

The Issues Paper itself identifies the limitations of a static DER Register and the need for information to be updated as changes occur.

Proportionate sharing

Not every participant requires the same level of information.

CCR supports sharing information at the level required for the relevant planning, operational or customer purpose, subject to privacy, security and commercial considerations. Overall, CCR recommends that Proposal 2 establish clear responsibilities for data creation, validation, updating and sharing, supported by common definitions and a proportionate minimum dataset, designed to improve the quality of existing data flows rather than require a new centralised data platform at this stage.

4.3 Reform Proposal 3: Indirect data collection for EV chargers

CCR position: Support

CCR supports the proposed use of existing processes to improve visibility of Level 2 EV charging while avoiding new technical requirements that could increase barriers to EV adoption.

The Issues Paper proposes using existing processes, including electrical safety certificates, as a low-cost mechanism to obtain better information about EV charger installations. It also notes that such an approach will not provide complete visibility, but can materially improve understanding of EV charger proliferation across the network.

CCR supports that proportionate approach.

EV charging is becoming an increasingly material electricity load and, where appropriately enabled, can also interact with onsite solar, battery storage and energy-management systems.

Accordingly, data such as charger type, capacity, location and relevant communication capability, including whether a charger is compatible with the Open Charge Point Protocol, can become increasingly useful for network planning.

However, the immediate objective should remain **visibility**, not imposing additional control requirements on EV chargers.

The Issues Paper specifically notes that it does not propose new technical requirements for Level 1 or Level 2 EVSE at this stage. CCR recommends existing electrical installation processes be used wherever practicable, with the minimum additional data necessary to establish useful network visibility, and that technical or controllability requirements remain a matter for separate consideration as EV uptake evolves.

5. Principle 2: Making it easier for businesses to connect DER

5.1 Reform Proposal 4: Standardised data to create an easier connection pathway

CCR position: Strongly support

CCR strongly supports the intent of Proposal 4.

The Issues Paper identifies commercial and industrial rooftop solar as an important area for improved DER uptake and recognises that multiple application steps and manual processes can create 'soft barriers' even for relatively routine systems.

CCR considers this particularly relevant to commercial sites where DER may be deployed as an integrated energy system.

For example, a commercial site may combine:

solar PV + battery storage + EV charging + building load + metering + energy-management systems.

The regulatory framework should allow such systems to be assessed efficiently without requiring each technology to create a separate administrative pathway where the overall network impact can be adequately characterised through standardised information.

CCR supports the proposed lower-cost pathway for LV-connected systems likely to include DER up to 1 MVA, with a simpler approach for systems between 30 and 200 kVA and potential use of CSIP-AUS for commercial solar.

CCR makes three recommendations.

Standardise the data, not the project configuration

Standardised information should make the connection process easier without requiring all commercial DER systems to adopt the same technology configuration.

Recognise integrated DER

Where solar, storage, EV charging and other DER are designed to operate together, the connection process should allow relevant characteristics to be presented as an integrated system.

Provide a practical transition

CCR supports the Issues Paper's recognition that commercial systems have long design and procurement lead times and that implementation should allow sufficient time for industry and manufacturers to adapt. On this basis, CCR recommends Proposal 4 establish a standardised, proportionate data and commissioning pathway for routine commercial DER, while allowing integrated combinations of solar, storage, EV charging and energy-management systems to be assessed through the same streamlined process where technically appropriate.

5.2 Reform Proposal 5: Requirements to share network capacity

CCR position: Strongly support

CCR strongly supports Proposal 5, which addresses a genuine gap in current arrangements: network constraints are often only discovered once a connection application is already underway.

The Issues Paper proposes that Western Power publish:

1. forecast distribution-network capacity at an aggregate level, including feeder-level information; and
2. historical distribution-network capacity, allowing forecast capacity to be compared with actual outcomes.

CCR considers this an important shift from treating network constraints as something discovered only through a connection application towards information that can inform project planning earlier.

This is particularly relevant to:

- commercial solar;
- battery storage;
- EV charging;
- electrification projects; and
- VPP development.

The Issues Paper identifies that improved capacity information can help participants identify locations capable of accommodating new demand and can also support VPP opportunities.

CCR recommends that the capacity information be:

- sufficiently current for project planning;
- sufficiently spatially relevant to support meaningful site selection;
- consistent in definition and presentation; and
- accompanied by appropriate explanation of the basis and limitations of the information.

CCR supports broader spatial approaches such as Western Power's iNOM where these can provide useful information without exposing customer-specific information, and recommends network-capacity information be designed as a practical planning input for DER and electrification projects, with clear definitions, consistent presentation and sufficient spatial granularity to support project screening and investment decisions.

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6. Principle 3: VPPs, network impacts and consumer opportunities

6.1 Reform Proposal 6: Explore mechanisms for VPP operators to provide simple capacity data

CCR position: Support

CCR supports the proposed light-touch approach.

This is particularly timely given the WA Residential Battery Scheme (WARBS) requires VPP participation as a condition of the rebate, unlike the Australian Government's Cheaper Home Batteries program. This has resulted in significantly higher VPP participation in the SWIS than in the National Electricity Market, increasing the urgency of establishing clear and consistent VPP data definitions.

Importantly, CCR agrees with DEED's reasoning that **nameplate capacity is not necessarily a meaningful measure of the capacity a VPP can actually provide**.

The Issues Paper proposes the concept of **controllable VPP capacity**, allowing VPP operators to provide a capacity value that incorporates differences in the underlying DER population and expected behaviour.

CCR considers this preferable to imposing increasingly detailed reporting requirements on individual DER assets at the VPP level.

The example provided in the Issues Paper is particularly relevant: a VPP's available injection capability can differ depending on the proportion of AC- and DC-coupled systems within the portfolio.

CCR therefore supports a simple capacity metric that captures the **operational capability of the aggregated portfolio**, rather than simply summing device nameplate ratings.

There is, however, an important implementation issue. The Issues Paper notes that VPP operators are not necessarily WEM market participants and that there is therefore no existing, clearly defined compliance population for such obligations.

CCR agrees this should be resolved carefully.

The initial obligation should not create a new regulatory burden for every entity that happens to operate software capable of coordinating customer devices. CCR notes that DEED has flagged registration under the Alternative Electricity Services framework as a possible future mechanism for VPP operators to report this information, and

supports this option being progressed alongside the initial reporting requirements, with the initial framework prioritising reliable high-level visibility over detailed operational reporting.

6.2 Reform Proposal 7: Tie network-capacity information to VPP opportunities

CCR position: Strongly support

CCR strongly supports Proposal 7, which addresses a genuine barrier to VPP development: insufficient visibility of DER and network conditions beneath individual transmission nodes, combined with privacy limitations around NMI-specific information.

CCR considers the proposed spatial approach particularly valuable.

Western Power's iNOM provides an example of how useful network information can be provided at a spatial level without exposing customer-specific information.

CCR supports exploring broader use of this type of approach for:

- VPP development;
- managed EV charging;
- larger EV charging sites;
- network support opportunities; and
- other commercial DER projects.

The key is to provide **actionable location-based information without disclosing customer-specific data**.

This could enable developers and aggregators to identify areas where DER or flexible demand may be particularly valuable before investing in detailed project development. CCR recommends DEED pursue outcomes-based requirements for Western Power to make suitable spatial network and opportunity information available on a self-service basis, while retaining appropriate privacy and security protections.

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7. Other Matters CCR Recommends DEED Consider

The Issues Paper specifically asks whether there are other matters that should be considered. CCR identifies three.

7.1 Treat data quality and connection efficiency as one reform problem

CCR considers that connection processes and data quality should not be treated as separate workstreams. Poorly structured connection processes tend to produce poor data, which in turn creates additional manual validation effort and further connection friction.

The reform opportunity is therefore to design the process so that **the information captured during connection is reliable enough to support downstream planning and operational needs without repeated manual re-entry or reconciliation**, particularly given the duplicate records and incorrect capacity or system-status information already identified in the DER Register.

7.2 Ensure commercial DER is considered as an integrated energy environment

The Issues Paper's focus on commercial DER is important because commercial installations can have materially different configurations from residential DER.

A commercial site may combine generation, storage, EV charging, building loads and multiple meters.

CCR recommends that the connection redesign explicitly test its processes against these integrated use cases rather than primarily designing around standalone commercial PV.

This would improve the relevance of the reforms as electrification and onsite energy systems become more sophisticated.

7.3 Maintain a technology-neutral framework

CCR supports the Issues Paper's decision not to prescribe a single DER data-exchange platform at this stage.

The SWIS has fewer market participants and a different contracting and network structure from the NEM, and DEED has appropriately recognised that the NEM's technical solutions should not automatically be transferred to WA.

CCR recommends retaining this principle through the detailed rule-making process.

The framework should prescribe:

what data is required, who is responsible, when it must be available and how it may be used

rather than prescribing:

which specific technology platform must store or exchange it.

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8. Response to DEED's Broader Consultation Questions

Do you have feedback on the seven proposals?

Yes.

CCR's detailed, proposal-by-proposal feedback is set out in sections 4 to 6 above. CCR supports all seven reform proposals, subject to the practical recommendations made against each.

Are there any other things that we should consider to improve DER data quality, collection and/or data flows?

CCR's suggestions are set out in section 7 above: treating data quality and connection efficiency as one reform problem, testing the connection redesign against integrated commercial DER use cases, and maintaining a technology-neutral framework.

Will the proposals help increase DER uptake and participation?

Yes, subject to effective implementation.

CCR considers Proposals 1 to 5 particularly capable of reducing practical barriers to DER uptake.

For residential and smaller systems, consistent CSIP-AUS implementation and better data validation should reduce duplication and improve the connection and commissioning process.

For businesses, standardised data and a clearer pathway for routine larger DER should reduce administrative friction.

For EV charging and VPPs, improved network visibility can help direct investment towards locations where DER can provide greater system value.

This aligns with the Issues Paper's objective of using better data to reduce unnecessary network expenditure while enabling greater renewable-energy participation.

How well do existing data-sharing and connection processes work?

CCR's view is that the current arrangements appear to have developed faster than the supporting data architecture.

The Issues Paper identifies inconsistent upstream data collection and validation as a major reason the DER Register cannot currently provide the quality and consistency required for system planning.

For customers and installers, this manifests as additional process steps, manual information requirements and repeated provision or validation of information.

CCR therefore supports the proposed redesign, particularly where data captured at connection can become usable across subsequent parts of the energy-system lifecycle.

Are there parts of the DER connection process that should receive particular attention?

CCR recommends particular attention to:

Data duplication: information should be captured once and reused wherever possible.

Validation: responsibility for validating key fields should be explicit.

Changes to existing systems: upgrades and modifications should not create duplicate or incorrect asset records.

Integrated commercial DER: solar, storage, EV charging and energy-management systems should be capable of being represented together where appropriate.

Commissioning: commissioning should verify both technical compliance and the accuracy of the information being recorded.

Transition: implementation should account for projects already in design or procurement, particularly larger commercial systems.

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9. Conclusion

CCR supports the seven reform proposals and considers the Issues Paper a practical next step in strengthening the foundations for DER integration in Western Australia.

The central opportunity is not simply to collect more data.

It is to ensure that the **right data is collected once, validated appropriately, shared with the right participants and made useful for connection, planning and operation**.

CCR particularly supports:

- consistent CSIP-AUS implementation for smaller DER;
- clear DSO responsibilities for standing-data collection and validation;
- low-friction EV charger data collection;
- a standardised pathway for routine commercial DER;
- improved network-capacity visibility;
- controllable VPP capacity reporting; and
- spatial information that allows VPP and commercial DER opportunities to be identified without compromising customer privacy.

CCR also supports the Issues Paper's proportionate approach of addressing immediate data and connection problems without prematurely prescribing a single technology architecture for the SWIS.

As the Government progresses to detailed ESM Rule amendments later in 2026, CCR encourages DEED to retain this balance: **stronger data and visibility, simpler connections and greater DER participation, without unnecessary regulatory or technological complexity.**

CCR welcomes the opportunity to contribute further to the detailed rule-change consultation.

About Climate Change Response

Climate Change Response (CCR) is an Australian energy and climate technology company working across energy management, smart metering, embedded networks, distributed energy resources, renewable energy systems and data-enabled energy and climate solutions.

Climate Change Response Pty Ltd

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Confidentiality

This submission does not contain confidential information and CCR is content for it to be published in full as part of DEED's consultation summary.