



Australian Energy Market Commission
Level 15
60 Castlereagh Street
Sydney NSW 2000

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Rule Change Consultation Paper: -

NATIONAL ELECTRICITY AMENDMENT (Governance of Distributed Energy Resources Technical Standards) RULE 2022

NATIONAL ENERGY RETAIL AMENDMENT (Governance of Distributed Energy Resources Technical Standards) RULE 2022

Thank you for the opportunity to comment on the AEMC Consultation Paper regarding the "Governance of Distributed Energy Resources Technical Standards" (Rule 2022) published 2 September 2021.

This response is a joint response on behalf of both Rheem Australia Pty Ltd (RAPL) and Combined Energy Technologies Pty Ltd (CET), as we have a complementary interest in the AEMC's Consultation Paper.

As the largest Australian manufacturer of water heaters with products in over 4 million Australian homes, we offer a wide range of traditional and renewable energy water heater models to the domestic water heating market under the Rheem, Solahart, Vulcan, Aquamax & Everhot brands, and are the third largest supplier of photovoltaic (PV) systems in the country. Over the last three years we have also commenced the manufacturing and installation of smart electric water heaters, controlled remotely by our technology partner, CET.

Combined Energy Technologies (CET) is an Australian technology company specialising in energy management for residential, commercial, and micro grid systems. CET provides home gateway devices and has extensive experience in the integration and orchestration of systems with multiple DER devices including the integration of solar PV, batteries, water heating, electric vehicle chargers, pool pumps and HVAC for the benefit of the homeowner, retailer and the grid.

Together, Rheem and CET are already actively participating in the emerging DER market with thousands of online, mixed, orchestrated DER sites (Solar PV, batteries, smart water heaters, HVAC, pool pumps, EV chargers, other loads) across the NEM and the WEM. Over the past 8 years we have identified and resolved many issues (at live field sites) around how mixed, smart



DER sites can be orchestrated to achieve the best financial outcomes for consumers, whilst providing a foundation for grid support services and hence grid security of supply.

This experience has given us a unique insight and particular interest into the issues raised in the consultation paper and has coloured our responses to the questions raised within the paper.

Our specific responses to some of the questions raised within the consultation paper follows this covering letter, however, in summary, the position of Rheem and CET is that:

- Safety should be the key assessment criteria for DER standards, above those of price and reliability.
- The Standards Australia process for the development of standards should remain in place, as its consensus approach to resolving conflicts, and its balloting and public comment processes, deliver robust and sensible standards for the community.
- The AEMC has a role to play in setting and mandating standards for interoperability and cybersecurity, to ensure commonality across all DER
- Any adoption of standards into regulation should adhere to the processes outlined in the Commonwealth Government's May 2021 Regulatory Impact Analysis Guide for Ministers' Meetings and National Standard Setting Bodies.

Further support and reasoning for the above positions are included in the responses below.

As this submission has been prepared using the expertise of several Rheem and CET personnel, I would ask that any enquiries related to the submission are directed in the first instance to myself. I will then co-ordinate follow up responses to your enquiries or further meetings, if required, with the appropriate personnel within our organisations.

Yours Sincerely

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In response to the Commission's Questions:

QUESTION 1: ASSESSMENT FRAMEWORK?

- Rheem believes that the assessment framework should have safety as a first priority, with any balancing of variables only occurring between reliability and price. Product manufacturers frequently deal with such trade-offs, however the safety of users is always given a greater importance than other considerations such as cost and ease of use. Given the higher level of risk associated with the electricity network, the same level of importance should be given to safety within the assessment criteria.
- Rheem would also suggest that an additional bullet point be added to the “price” criteria of the assessment to ensure a “user pays” principal is embedded in any DER standards application:
 - “Parties benefitting from any new governance arrangements are those most responsible for meeting the costs of the arrangements”

QUESTION 2: IDENTIFYING GOVERNANCE PROBLEMS?

- Rheem disagrees with Dr Schott's characterisation of the Australian Standards process:
 - *the key concern with the overall Standards Australia process is that it is often slow. This means it is not fit for purpose given the fast-changing nature of DER technology and markets.*
- Standards Australia's committee structure for the development of standards, whilst sometimes cumbersome, relies on the concept of consensus by all parties, and a rigorous balloting and public comment process. All of these elements are required to develop robust and sensible standards, and this process takes time. Fast tracking potentially inappropriate DER solutions to mitigate poor energy policy decisions would potentially create stranded DER assets and larger problems for consumers in the long term.
- Rheem disagrees with the premise that the non-automatic adoption of Australian standards is a problem. Carrying out wide ranging consultation and justification for any new regulation or impost on stakeholders is an important component of any new regulation. This is now codified by the Commonwealth Government's May 2021 Regulatory Impact Analysis Guide for Ministers' Meetings and National Standard Setting Bodies. Automatic adoption of standards would eliminate this step of the regulatory process.
- Rheem does agree that the AEMC has a role to play in the areas of interoperability and cybersecurity issues, which should be treated in the same way across all DER standards. These are specialist issues that go to the heart of a future energy system with high penetration of DER and should therefore be common across all DER standards.



QUESTION 3: ASSESSING THE MARKET IMPACT OF IDENTIFIED PROBLEMS?

- Rheem agrees that a national approach to the adoption of DER standards is preferable to the current situation that allows individual jurisdictions to attempt to rush their introduction. We are therefore supportive of some of the changes being made to the governance arrangements as laid out in the consultation. This does not, however, signal agreement that published DER standards should be automatically adopted without full community consultation and the publication of a regulatory impact statement.

QUESTION 4: DER TECHNICAL STANDARDS IN THE RULES?

- Rheem believes that any new governance arrangements should be complementary to the existing Standards Australia process. The AEMC, however, should participate in the development of standards as well as providing direction on the issues of interoperability and cybersecurity.
- The AEMC's involvement in developing the standards, and clear guidance on key technical issues, should shorten the development of new DER standards significantly.
- Including DER standards in the NER would ensure that all jurisdictions acted as one, allowing manufacturers and suppliers to be certain regarding timings and requirements. This benefit, however, would only be a realisable benefit if individual jurisdictions are willing to give up their right to act unilaterally.

QUESTION 5: WHO DEVELOPS AND MAINTAINS DER TECHNICAL STANDARDS?

- Rheem proposes that the AEMC should only be responsible for determining or advising on common DER technical requirements for issues such as interoperability and cybersecurity. Once agreed, these should be mandated for inclusion in standards developed within the Standards Australia process. As these are core competencies required for the development of a functioning grid, development of these requirements should reside in-house within the AEMC
- With the ongoing involvement of Standards Australia in this scenario, governance arrangements between the AEMC and Standards Australia would need to be developed.
- Taking responsibility for standards development out of the current Standards Australia committee structure, with its broad stakeholder involvement, risks forgoing the knowledge necessary to ensure that new technical standards meet the NEM objectives of the safety, security and reliability of its system.
- Rheem believes that the above approach is likely to reduce the time required to develop and implement new DER technical standards.
- Developing an alternative path to standards development, using nominated consultants without a deep practical knowledge of the manufacture or use of the products under consideration, risks the development of academically/theoretically appropriate standards that fail in the real world.



QUESTION 6: HOW PRESCRIPTIVE SHOULD NEW GOVERNANCE ARRANGEMENTS BE?

- Rheem supports the concept of a panel to identify the need for new DER standards or revisions to existing DER standards.
- This approach, if coupled with an agreement with Standards Australia, could ensure that any required activity could be fast tracked through the Standards Australia project selection process, thus reducing significantly the time need for standards development.
- This would be preferable to creating a new advisory committee on DER technical standards.