



Mark Feather
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Australian Energy Regulator

By email: AERpolicy@aer.gov.au

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Dear Sir

Re: Retailer Authorisation and Exemption Review

Thank you for the opportunity to comment on the Retailer Authorisation and Exemption Review (the Review).

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 Discussion 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 we are the third largest supplier of photovoltaic (PV) systems in the country. Over the last four years we have also commenced the manufacturing and installation of smart electric water heaters, controlled remotely by our technology partner, CET.

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 and have developed a DER aggregation platform for grid services. For example, a Rheem water heater VPP project, with ARENA and South Australia Government support, is currently in the field with the aim of orchestrating the DER in 2,400 homes to address the state's minimum demand problem.

We strongly support the AER's summary of the key challenges in this area. That is

"There are inherent challenges in designing regulation for a future market where there is still many uncertainties. Proposed changes to the authorisation and exemption frameworks will need to balance various factors to ensure they support consumer engagement in new energy products and services. These include minimising regulatory burden and simplifying regulatory frameworks, creating a market that incentivises, rather than stifles innovation, ensuring competitive neutrality between traditional retailers and new market entrants offering new technologies and service models. Ultimately, any changes must ensure consumers can reap the benefits of a two-sided market through consumer-inclusive design and frameworks with adequate protection."



With these challenges in mind, our high level recommendations regarding your review are as follows:

Suggested Governance Arrangements

The key objective of the AER should be to ensure that controlled DER is able to meet the role that AEMO has forecast in the draft 2022 Integrated System Plan, which states “The most pressing need in the next decade isto manage daily variations in fast growing wind and solar output.....modelling forecasts that VPPs, vehicle-to-grid (V2G services and other emerging technologies) will provide approximately 30GW of dispatchable storage capacity”.

For this reason, Rheem would recommend that there is a need to introduce a level of regulation over new market participants. Consumer confidence and uptake of controlled DER would be heavily impacted by poor consumer outcomes. This should include a form of mandatory accreditation process similar to that being considered to ensure compliance with the CSIP-Aus requirements for interoperability by SAPN in South Australia. In particular to ensure the system meets interoperability and cyber security requirements.

Any new regulation needs to balance the importance of creating a competitive market for new and innovative service providers. The current arrangements for energy retailers are seen as onerous and would prohibit smaller participants from entering the market.

To balance these conflicting objectives, Rheem would support the introduction of a new category of market participant in the NECF for Aggregators. This category would be provided with exemptions from the retailer obligations until threshold criteria are exceeded. The key threshold for moving beyond a pure aggregator role would be if the services include the sale of energy to the consumer. However, any threshold should exclude energy that is sold to a consumer under the AER's "Electricity Network Service Provider - Registration Exemption Guideline Version 6 March 2018". That is because there are many services that an aggregator can provide in partnership with a DNSP or retailer that remain below this threshold.

We support that exemption holders should be subject to periodic review or be required to reapply for exemption as the nature of their services change.

Emerging issues to consider

The AER should take an agile monitoring approach to the above arrangements, with an annual review of the scale and scope of any emerging issues that are affecting customers. This includes a watching brief by the AER on some emerging issues that include:

Lock-in customer contracts:

We are concerned that some DER providers are permanently locking customers into a single aggregator as a condition of their DER purchase. The risk is that customers are unable to churn to a better offer by another aggregator, which may stifle the benefits of a competitive market. To be clear, we do see potential customer benefits from fixed terms arrangements if this results in the customer benefitting from a lower capital cost for their smart DER. The concern is more related to the fact that consumers are not fully aware of the implications of the lock in arrangements. Rheem would recommend that:

- Any customer lock-in to a specific aggregator be an explicit condition and covered under a separate agreement with the customer.
- That any lock-in arrangement be limited to a reasonable period. For example, up to 5 years.
- That customers be given the option to pay a reasonable exit fee if they wish to terminate the exclusive arrangement early. This approach has been used by mobile carriers as part of mobile handset purchase arrangements.

Adoption of open standards and interoperability:

Rheem sees that the key aspect of driving good customer outcomes will come from an open and competitive market for controlled DER services. This will allow consumers who are unhappy with their existing provider to easily churn to an alternative provider. An essential element of such a competitive market would be the mandating of open standards and interoperability for all DER.

Many of the technical aspects of this requirement are being addressed by the interoperability workstream under the ESB's DER Implementation roadmap. However, the proposed regulatory mechanism to enforce this has not been finalised. It is important to note that open standards on their own are not sufficient. DER providers must also ensure that any accredited 3rd party aggregator is not contractually prohibited from orchestrating their DER.

We would argue that this is also essential if the intended Dynamic Operating Envelope (DOE) and associated Dynamic Export Limit regimes are intended to be implemented. This is because all devices in a home need to be coordinated for the home to reliably respond to DOE and DEL.

Cost prohibitive license fees:

There are some DER providers who do not prohibit a 3rd party from orchestrating their DER. However, they are essentially achieving a similar outcome by requiring cost prohibitive license fees to access their control software. This issue should be overcome in the longer term with mandated open standards and interoperability. However, this may not help legacy DER customers who purchased their DER before open standards and interoperability are adopted. This could be overcome with a requirement that open standards and interoperability requirements be backwards compatible for existing DER.

Cyber Security:

Having timely control of the inherent supply and demand in such a significant population of DER is seen as essential for the grid of the future. However, this control also introduces potential risks as a controlled DER fleet could be used to deliberately destabilise the grid. Best practice cyber security is also essential to ensure that consumers have confidence that in handing control to third party providers, their DER will not be accessed by bad actors.

The ESB has a workstream that is developing cyber security standards under its DER Implementation Roadmap. As noted above the AER should introduce accreditation requirements for all Aggregators that ensure they are able to meet specified cyber security standards.

Access to information:

Rheem has identified that the current NECF does not provide the customer with the right to real-time local data from their smart meter. This reduces the customers' ability to manage their DER in the optimal economically efficient manner. Rheem and other DER market participants have raised this issue with the AEMC as part of its Review of Metering Services.

Multiple provider model:

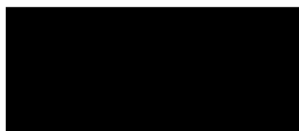
Rheem has some concerns about the risk of adverse customer outcomes from the multiple provider model, and the associated requirement for a second connection point and Flexible Trading Arrangements. We have direct examples where customers with more than one aggregator are financially worse off than if one aggregator was controlling the home for optimal economic outcomes. Consumers do not typically understand the complexity of what they are signing up for.

We also suggest that a multiple provider model is incompatible with DOE and DEL unless one primary Aggregator is able to override other providers where required. We have examples where the storage asset (BESS) is part of an FCAS VPP, a charge / discharge by the BESS which is not part of the homes DER orchestration will invoke a response from other DER (via the HEMS) thus negating the FCAS response.

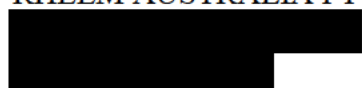
Additional to the above feedback, Rheem has also addressed those consultation questions raised in the Review where we believe we have specific expertise as a result of our experience in the controlled DER market. These are attached in Appendix A.

We would ask that you give due consideration to the perspective of innovators looking to invest in the substantial but largely unrealised role that controlled DER could play in the Australian market. If you have any queries regarding this response or our market, please don't hesitate to contact me.

Yours Sincerely



Ashraf Soas
General Manager Energy Solutions
RHEEM AUSTRALIA PTY LTD



APPENDIX 1

Question	Response
1. Do you agree with the approach of using use cases/business models to identify the harms and risks of new energy services and products? Please explain why.	Yes. We would suggest that this use case approach is effective at differentiating between the potential customer impacts. These can be used to identify threshold use cases that may require greater regulation/protections.
2. Do you consider the use cases/business models appropriate to assess the harms and risk of new energy services and products? In particular: a. What, if any, changes should be made to the use cases/business models set out in this issues paper? b. Are there any other use cases/business models we should consider? Please provide examples.	There are a number of use cases that should be considered to further inform the risk assessment process. For example: 1. The potential conflict where a battery is being controlled by one Aggregator and responds to an FCAS event, and other household appliances by another Aggregator who responds to a changing DEL requirement. 2. An Aggregator who bills the customer on a subscription basis separately from the retailer to optimise the household energy bill by shifting demand and responding to DOE or DEL, but does not sell energy to the customer.
3. Do you consider any of the use cases/business models outlined to be essential in the same way as the traditional supply of energy arrangement is? If so, what is the appropriate level of consumer protections that should be applied to these products and services? Please explain.	Yes. Refer to section 1 above
4. How do you see new energy services and products interacting with the essential nature of the supply of energy? a. Please specify which types of new energy services and products may substantially impact the supply of energy to a premises. b. How do you think risks created by a new energy service or product on the supply of electricity should be addressed? Should they be treated the same as energy products and services considered essential? What factors should the AER take into account when considering what consumer measures are appropriate and proportionate?	Rheem sees new energy services being a critical part of optimising both consumer economic outcomes and grid security under the AEMO “step change scenario” forecast. a. These services will naturally evolve over time with scale to be more integrated with the supply of energy to the premises. The level of consumer protection and regulation will also need to evolve in a complementary manner. b. Until the market scales and matures, new energy services should not be treated as essential.
5. Do you agree with the proposal to take into account the need to encourage the uptake of DER-based energy services and products when considering what measures are appropriate to address or mitigate potential harms and risks? Please explain why.	Yes. Regulation needs to commence on a “light touch” basis to encourage new entrants and innovation and evolve as the services and scale evolve.
16. Do you agree with this review considering the need to expand the scope of the NECF where appropriate?	Yes



17. Do you consider the potential reform options outlined in section 6.2 will go some way to addressing current gaps in the frameworks in relation to future applications?	Yes, but additional measures will be required.
18. Would it be helpful to introduce limited authorisations and exemptions to apply to particular business models/business activities? a. Are there any risks to this approach?	Yes. Risks can be mitigated with a regular review process to adapt if new consumer impacts arise.
26. If there are changes to the framework that applies to new retailers or exempt sellers, what changes should be made to existing retailers or exempt sellers?	None – existing arrangements are appropriate for existing retailers and exempt sellers.
27. What are other possible solutions to ensure the authorisation and exemption frameworks remain effective within the context of new energy services?	Refer to Section 1.0 above
28. How can we ensure the authorisation and exemption frameworks achieve effective regulation and balance the need for innovation and an appropriate level of protections for energy consumers? a. How can we effectively regulate new business models?	Refer to Section 1.0 above
29. If changes are made to the authorisation and exemption frameworks, what (if any) changes should be made to apply to existing retailers and exempt sellers/embedded networks? Should there be a trigger for changes to existing authorisations and exemptions and, if so, what should they be?	None – existing arrangements are appropriate for retailers and exempt sellers.
30. Are the existing protections under the NECF adequate to protect consumers from the potential risks posed by the transformation of the energy market and emergence of new energy products and services?	Refer to Section 2.0 above. This lists some emerging issues that need to be considered and reviewed for potential inclusion in the NECF
31. Should energy products and services not currently captured by the NECF be regulated and how?	Yes new services should be regulated via the introduction of a new category of market participant in the NECF for Aggregators
32. Do we need new specific protections added to the NECF to protect against emerging harms, including harms that may be particular to emerging business models?	Yes. Refer to Section 2.0 above.