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Our Ref: #12,241,578
Your Ref: Protecting Critical Infrastructure and Systems of National Significance: Draft Critical
Infrastructure Asset Definition Rules
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Mr Alex Lewis
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14 May 2021

Dear Mr Lewis

Draft Critical Infrastructure Asset Definition Rules

The Australian Energy Regulator (AER) welcomes the opportunity to comment on proposed rules for critical electricity and gas assets. We commend the Critical Infrastructure Centre's (CIC) extensive consultation efforts and commitment to engage with stakeholders throughout this co-design process.

We recognise the importance of uplifting the security and resilience of electricity and gas critical infrastructure. As flagged in our previous submissions, we are particularly interested in the reforms' impacts to consumers, regulated businesses and the broader energy sector.

The AER welcomes early indications from the Department of Home Affairs (DHA) that stakeholder feedback for a centralised regulator has been considered and that subject to ministerial approval, the CIC is likely the relevant regulator for electricity and gas critical assets. We consider this approach will improve regulatory consistency and outcomes by:

- Minimising duplication and deliver efficiencies,
- Building expertise and experience,
- Providing certainty to industry, and
- Creating a deeper understanding of threats and interdependencies between sectors.

From the Draft Critical Infrastructure Asset Definition Rules paper and the electricity and gas co-design process, the AER has three observations:

- 1) Importance of keeping consumers and flow on costs front of mind
- 2) Security challenges from increasing grid interconnectivity and distributed energy resources

- 3) Consider targeted engagement and tailored timing and implementation to manage impacts on smaller generators

1) Importance of keeping consumers and flow on costs front of mind

We recognise the DHA's commitment to taking a proportional approach as flagged at the outset: 'develop proportionate requirements that strike a balance between uplifting security, and ensuring businesses remain viable and services remain sustainable, accessible and affordable.'¹ The extensive and consistent consultation with the energy sector throughout the process represents a good example of effective stakeholder engagement.

We note that the DHA intends to lower the threshold for electricity generation assets to 30MW. Whilst the AER recognises the importance in uplifting sector resilience it is also important to work through cost implications of these changes, and the flow on effects to consumers. This is particularly the case to the extent that the energy sector becomes more decentralised with more distributed and smaller generation sources.

Ultimately, the arrangements will need to strike a balance between delivering suitable resilience requirements and ensuring that these arrangements are proportionate from a cost and complexity perspective.

Striking this balance will also be important within the energy sector in relation to cyber security resilience, with consumers playing an increasingly bigger role through their distributed energy resources (DER) such as solar PV, electric vehicles, smart appliances and through demand management.

We suggest hearing consumer views to achieve better outcomes and reaching out to relevant consumer groups early in the process. There may be a broader conversation about engaging consumers to uplift their resilience and cyber security awareness. Possible energy consumer groups to engage with on these reforms include [Energy Consumers Australia](#) and the [Australian Council of Social Service](#). You may also want to approach the [National Consumer Roundtable on Energy](#) which includes a broad range of consumer organisations.

2) Security challenges from increasing grid interconnectivity and distributed energy resources

We welcome the growing recognition of the security challenges presented by increasing grid interconnectivity, cyber connectivity, and DER. As outlined in [our previous submission to the exposure draft](#) and in other stakeholder submissions, evolving technologies present security challenges for the energy sector. The significant uptake of DER presents growing security challenges, for example:

- compromised inverters could be controlled to cause disruption or trigger a cascading set of events, and
- compromised remote control by retailers, aggregators, technology providers and phone based applications could lead to broader disruptions.

We welcome the proposed expansion of assets to include batteries and storage as well as the removal of the 'synchronous' requirement. This is an important step towards uplifting security and resilience. However, the definition remains supply side focused without considering an electricity market that is increasingly two sided with two way flows of

¹ Protecting Critical Infrastructure and Systems of National Significance Consultation Paper, p5

electricity. Whilst the energy sector has been historically characterised by large scale grid sized supply infrastructure, this is increasingly changing with the uptake of more localised DER assets.

Consideration should be given to whether the definition should include demand management services and aggregators (where customers agree with an aggregator to control their usage through smart appliances or the remote management of solar PV and batteries). If aggregators and demand side assets are not included within the definition, the DHA may want to consider uplifting resilience through other cyber security work streams.

Besides DER issues, consideration should also be given on how the rules could be updated in the future to keep pace with technology changes. For example, whether the current definition of “gas” will include biomethane and hydrogen which could become more widespread in the future.

3) Consider targeted engagement and tailored timing and implementation to manage impacts on smaller generators

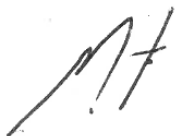
In relation to the recommendation that the generator threshold be lowered to 30MW to drive a broad uplift in sector resilience, we also echo stakeholder concerns about this significant reduction. In particular, the reduction will likely capture many assets that are comparatively less mature than larger assets and starting from a lower level of preparedness.

We also note that while many networks were present at the electricity co-design workshops, there were far fewer generators represented. The CIC may want to reach out to smaller generators and start discussions early to conduct targeted engagement. This may provide a clearer snapshot of the current level of preparedness of individual generators, as well as start a dialogue on what guidance and support they may require to meet any intended implementation timeframes.

The current language “connected to a wholesale electricity market”² may also be potentially confusing. When drafting the rules, the DHA may want to specify which markets to make it clearer.

We look forward to continuing to observe the co-design process and provide input to energy related reforms. If you required further information, please do not hesitate to contact me at Mark.Feather@aer.gov.au or on (03) 9290 6958.

Yours sincerely



Mark Feather
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Australian Energy Regulator

Sent by email on: 14.05.2021

² P8, Draft Critical Infrastructure Asset Definition Rules