



wattwatchers
DIGITAL ENERGY

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Submission to ERC 03011: Technical standards for distributed energy resources

Wattwatchers Digital Energy welcomes this opportunity to provide feedback on the Australian Energy Market Commission (AEMC) consultation paper on technical standards for distributed energy resources (DER).

Wattwatchers is an Australian technology company focused on intelligent, open and non-proprietary, consumer-friendly solutions for an electricity-powered 21st century. Our solutions suite spans devices, datasets, analytics, software and Internet of Things (IoT) connectivity, for energy and non-energy applications across home, community, commercial and industrial, and utility use cases.

Our horizontal Energy Data Hub model promotes technology collaborations, with dozens of third-party partner integrations with our RESTful API - in Australia, and internationally.

Product brands include Wattwatchers (hardware and data to the cloud), mydata.energy (native app - in development) and ADEPT (agile IoT platform for managing multi-technology fleets in real-time, including a core focus on DER). Multi-year projects include My Energy Marketplace, backed by \$2.7 million in grant funding from the Australian Renewable Energy Agency (ARENA); and MyTown Microgrid, supported by a \$1.8 million grant from the Australian Government through the Regional and Remote Communities Reliability Fund - Microgrids Program.

Wattwatchers is an active participant in relevant OEM/tech vendor collaborations including the industry grouping which recently produced and launched the voluntary DER Visualisation and Monitoring Best Practice Guide - see <https://dermonitoring.guide>

In making a submission to this and similar or related consultation processes - as a small and resource-constrained scale-up business, but also as an emerging solutions provider with well over a decade of experience in the Australian energy marketplace - we urge that particular attention needs to be applied to:

- Engagement and deliberate inclusion of the energy tech community to directly counter the power and influence imbalance between long-established industry incumbents and emerging innovators
- Protection of the 'opportunity space' for ongoing innovation and positive disruption
- Maximising understanding and inclusion of consumer perspectives and rights

QUESTION 1: ASSESSMENT FRAMEWORK

Do you agree with the proposed assessment framework? Should the assessment framework include any additional considerations, and if so, what are they and why?

The Australian Energy Market Operator (AEMO) should take a leading role in the development of DER technical standards, particularly those relating to its core responsibilities, and to cyber security.

We are aware, meanwhile, that the Energy Security Board is now reviewing governance frameworks for DER.

In any case, we submit that the AEMC must consider how impacts on consumers and businesses will be evaluated in this or future AEMO proposals, and in doing so should pay particular attention to involving technology innovators, protecting future opportunities for ongoing innovation, and ensuring that consumer perspectives and rights are prioritised.

QUESTION 2: SETTING THE INITIAL STANDARD AND DEFINITION OF DER

Should the initial DER technical standard be set by AEMO?

It is not appropriate that AEMO takes the leading role in all DER technical standards, although there are areas where it has core responsibilities and should lead, plus emerging areas of challenge such as cyber security where AEMO is well-positioned to be the leader.

It is respectfully submitted that it may be counterintuitive, at best, or at worst completely misguided to think that the solutions to managing distributed or decentralised energy resources lie in centralising all control of them.

Should the minimum standards be inserted into the minimum content requirements of connection contracts, negotiation frameworks and model standing offers or terms?

No. Minimum standards should be transparent and accessible. By contrast, as they currently stand, grid connection rules are opaque. One option may be for minimum standards to be published in the National Electricity Rules (NER). Improved levels of transparency and accountability should be a prerequisite.

What should the standard apply to and is a DER definition needed in the NER?

It is understandable that the standard would apply to AEMO's immediate concerns of voltage ride through and provision of an emergency backstop. As mentioned above, there also potentially is a case for AEMO to take on a role in standards for cyber security.

All other DER technical standards should be developed collaboratively across industry, as for example is currently the case in the work now being progressed through the AEMO-linked DER API Working Group (in which Wattwatchers participates).

We are drawn to the Clean Energy Council (CEC) contention that the scope of rules and technical standards should not be determined by a definition of what is 'DER'? The CEC has said in its submission to this consultation process, words to the effect that: 'Focusing on the nature of the services provided, rather than a description of devices that can provide the services, would be a better pathway to integration into future market frameworks that recognise and reward provisions of essential system services.'

As a practical example of the above, relevant to Wattwatchers, a 'service' such as solar export control might be provided by an inverter directly, or an inverter might be controlled via another device such as a Wattwatchers unit.

Do stakeholders agree that the standard should only apply to new and replacement devices? Will this meet the objectives of the desired policy outcome of this rule change request?

Applying standards to already installed devices and sites would be very challenging, although highly-flexible technologies such as Wattwatchers are capable of being retro-fitted to provide some DER-related services. In general, in retro-fit scenarios it would be better to provide incentives to encourage upgrades where suitable technology 'fixes' are available.

QUESTION 3: CONTENT AND DURATION OF THE INITIAL MINIMUM TECHNICAL STANDARD

Should the scope of the initial technical standard be limited by the NER?

Ideally, any changes should be held off until after the ESB review of governance of DER technical standards. This will help in ensuring there is a considered approach.

If so, should there be arrangements to allow for a review of the scope at a future date?

Yes, definitely.

Should the role of AEMO in setting DER minimum technical standards (the subordinate instrument) be limited in time, with the ESB's governance review outcomes to be introduced into the framework at a later date?

Yes.

QUESTION 4: APPLYING THE STANDARD AND MONITORING COMPLIANCE

How can the proposed solution be applied in Western Australia, Victoria, and the Northern Territory?

These jurisdictions may already be ahead of the NEM in important areas. It is worth considering what can be learned from them.

Is it sufficient to specify a commencement date for the DER minimum technical standard only and have the implementation dates for the individual standard components set out in the standard itself?

Overly-ambitious and likely unachievable implementation dates need to be avoided.

What level of compliance monitoring is needed?

It's a matter of horses for courses. The most appropriate means of compliance monitoring will be determined by what is being monitored.

Who should monitor compliance with the technical standards? How can compliance be enforced?

This should be addressed by the ESB review of the governance of DER technical standards.

QUESTION 5: COST OF THE INITIAL STANDARD

Considering AEMO's proposed initial standard in section 5.2, Box 1, what are the expected costs and benefits of implementing the initial standard for consumers, other affected parties and DNSPs?

There is a clear need for an appropriate governance framework that considers economic costs and benefits and impacts on consumers and businesses, backed by a rigorous process for achieving this. It is submitted that this is beyond the scope of this consultation paper.

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