



The ESB DER workplan

The Energy Security Board's (ESB's) objective is to **optimise the benefits of Distributed Energy Resources (DER) for all electricity system users**, regardless of whether or not consumers are owners of DER and across all types of DER.

To support technical, regulatory and market integration of DER, the ESB has agreed a [DER Integration Workplan](#). This workplan contains a comprehensive set of actions being undertaken by the energy market bodies (the ESB, AEMC, AEMO and AER) to support DER integration.

In its first four months, the ESB, AEMC, AEMO and AER have completed tasks jointly and separately across three DER Integration workstreams:

1. **Technical Integration**
2. **Regulatory Integration**
3. **Market Integration**

Key activities under each workstream are listed on the next page for the current period. We intend to release this joint report on a quarterly basis to provide an update on activities being undertaken by the market bodies on DER integration.

New actions

In response to COAG Energy Council's request that the ESB identify interim measures that could be completed by March 2020, the ESB has identified the need to review the timeliness of DER standards adoption. **Sapere and CutlerMerz have been jointly engaged to support the ESB explore options for improving the governance of DER technical standards.** The consultants will review governance arrangements for DER technical standards and opportunities, including a first principles perspective, to improve the efficiency and effectiveness of developing, maintaining and ensuring compliance with these standards. The consultants will engage with DER stakeholders over coming weeks, present a webinar on preliminary findings in early March and a final report by the end of March.

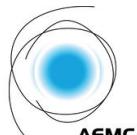
Opportunities for involvement over the next four months

The following DER actions will have opportunities for stakeholder engagement over the next reporting period:

- Review of the governance of DER technical standards – survey and interviews (February), webinar (March)
- Business models for distribution-level storage – stakeholder interviews (March) – webinar (April)
- DEIP DER Access, Pricing and Engagement workshops (11 March 2020)
- Wholesale demand response draft determination consultation (March 2020).
- VPP Trials: knowledge sharing report to be released by March 2020.
- Working Groups will be established for the DEIP work packages on DER Market Development (distributed trials), and DER interoperability.
- Stakeholder can also be involved in the Standards Australia processes on DER device standards.

Major achievements over the last four months

- **Distributed Energy Integration Program (DEIP) CEO forum** – In late 2019, CEOs met and agreed four priority DEIP work packages for 2020: 1. DER Access, Pricing and Engagement; 2. DER Interoperability (Data, Communications and Cyber Security); 3. DER Market Development; 4. Electric Vehicles (these work packages are part of the DER Integration Workplan and involve broader collaboration, including with consumer and industry organisations). Two of the four are in the process of being established under the DEIP (referring to upcoming events).
- **Standards:** A draft of the new inverter standard (AS 4777) is expected to be released by Standards Australia for consultation in early 2020. The dispatchability standard (AS 4755) is expected to be completed in early 2020. The interoperability standard is under development and so too are the cyber security capabilities. These will be worked on through the DEIP DER Interoperability package of work,
- **Inverter compliance:** At AEMO's request the Clean Energy Regulator (CER) has commenced a sample audit of inverters to determine compliance with network connection agreements.
- **Storage consultancy commenced** – ITP Renewables (ITP) have been engaged to assist the ESB to understand both the economics and regulation of business models for distribution-level storage and the interaction between the two. This is intended to support the ESB's work on DER integration and the development of post-2025 market design. The ESB's interest is primarily in battery storage, but the analysis is to include other forms of storage (e.g. hot water, and/or other controllable loads) considered useful to understand the issues. A webinar seeking feedback on ITP's draft findings will be held in early April 2020 with the final report due to the ESB at the end of April 2020.
- **AER DER Guidance paper** – On 19 November 2019, the AER commenced engagement on its 'Assessing Distributed Energy Resources Integration Expenditure' Consultation Paper. This paper seeks input from consumers and industry on how best to provide guidance to DNSPs on what considerations they should draw on in demonstrating that expenditures relating to greater DER penetration are prudent and efficient. Submissions on the paper closed on 20 January 2020. Over 24 submissions were received from across the electricity sector.
- **VPP trial:** AEMO launched trial with the South Australian VPP first participant. A number of other VPPs are expected to join by end of Q1 CY2020.
- **DER Access and Pricing Work Package** – A stakeholder workshop was conducted on 28 November 2019 to allow stakeholders to provide their perspectives on distribution access and pricing issues and consider potential alternative models. Around 70 stakeholders from across the electricity industry attended. Discussions were very collaborative and constructive. A second workshop will be held on 11 March 2020 to explore areas of reform required.
- **DER Register:** The DER Register went live with historical data uploaded in December 2019 with an extended implementation (?) period to 1 March 2020 to enable parties to adopt the new data collection process.



Further Information:

More information about each of the DER Program priorities and how to get involved, visit:

[ESB Website](#)

[AEMC Website](#)

[AEMO website](#)

[AER Website](#)



Q4 2019

To be completed in Q1 2020

Technical Integration

- T1. Device standards – Amendments to AS4777 submitted to Standards Australia. CER commences sample audit of inverters.
- T2. Comms standards and protocols – to be incorporated into DEIP 2020 work package.
- T3. Connection standards – mandation being considered through governance review of DER standards
- T4. Data - DER Register deployed (Historical data loaded). The formal collection process to commence on 1 March 2020. Using an agreed portal framework,

- T1. Device standards – AS4755 (dispatchability standard) to be completed in early 2020 – additional scope (cyber requirements) were added to the changes.
- T4. Data - DER Register data collection to go live on 1 March 2020.

Regulatory Integration

- R1. Planning – Draft ISP released in December 2019. Including DER scenario modelling,
- R2. Ringfencing – AER draft distribution guideline published
- R3. Storage – consultancy on distribution-level storage commenced
- R4. Non-network alternatives – postponed until after post-2025 market options developed
- R5. Sandboxing – draft rules released
- R7. Innovation funding – CEOs support for DEIP program for 2020

- R1. Planning – review the National electricity rules for Distribution Annual Planning Reports
- R1. Planning – review the need to enhance the ISP to support distribution planning
- R2. Ringfencing – final distribution guideline and draft transmission guideline due
- R3. Storage – consultancy report due
- R5. Sandboxing – advice on rule and law changes to be provided to COAG Energy Council
- R6. SAPS and microgrids - AEMC final report released on Third-party SAPS framework in the NEM (March 2020)
- R6. SAPS and microgrids - Update to AER guidelines following SAPS and embedded network law and rule changes

Market Integration

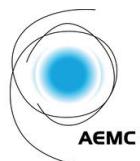
- M1. Demand Response Mechanism - Wholesale Demand Response mechanism (DRM rule change) – extension of time to consider alternative design
- M2. Distribution Access and Pricing – workshop held with 70 stakeholders, problem statement defined, short list of potential reform options developed
- M2. Distribution Access and Pricing – Network guidelines draft paper released for public comment
- M3. Network tariff report – Victorian tariff process commences
- M5. Post-2025 market design – consultation on options delayed due to COAG energy council urgent priorities

- M1. Demand Response Mechanism - Wholesale Demand Response (final determination)
- M3. Network tariff report – SA and Qld final decisions
- M4. Open Energy Networks – final report due
- M5. Post-2025 market design – DER Steering Committee to examine priorities for DER integration in project

Other relevant DER actions

- Pilots: VPP Trial customer insight working group established, VPP Trial technical solution developed enabling communication between AEMO and aggregators
- EV Roadmap – working group established under the DEIP met to consider priority areas. This will be reviewed and distilled in early 2020 to inform program of work in this area.
- AEMC Black System Event review – review completed
- Sapere and CutlerMerz engaged to undertake a review of the governance of DER technical standards

- Sapere and CutlerMerz final report on governance and compliance of DER technical standards – by the end of March



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