



TERMS OF REFERENCE

Distributed Energy Integration Program (DEIP) Standards, Data & Interoperability Working Group

1. Mission

To support the development and implementation of industry technical standards, guidelines or protocols to support the safe and reliable integration of Distributed Energy Resources (DER) DER into the Australian electricity system, in a manner that maximises value for customers.

2. Purpose

The DEIP 'Standards, Data and Interoperability Working Group' (SDIWG) brings together a broad range of industry stakeholders and consumer group representatives to develop specific requirements in regard to the standards, data and interoperability capabilities for DER. The purpose of this working group is to:

- Identify priorities, co-ordinate, and steer the activity that will form the key components of the data and interoperability of devices in the distribution network. Through this process look to ensure standardisation of communication, technical device operations and integration of DER with the wholesale, FCAS and network services markets.
- Provide steering to the technical taskforces focused around key activities to update or develop standards, guidelines or protocols for devices, connections, communications and cyber security to support DER integration to ensure system security and reliability at both a system and local level, whilst also providing value to customers and assisting in the facilitation of a pathway to post 2025 market design.
- Provide governance to continuously review and develop the technical standards, data and interoperability capabilities for DER.
- Communicate and highlight key priority areas in the DER standards, data and interoperability landscape, with the industry and broader stakeholders.

3. Functions

The key functions of SDIWG are to:

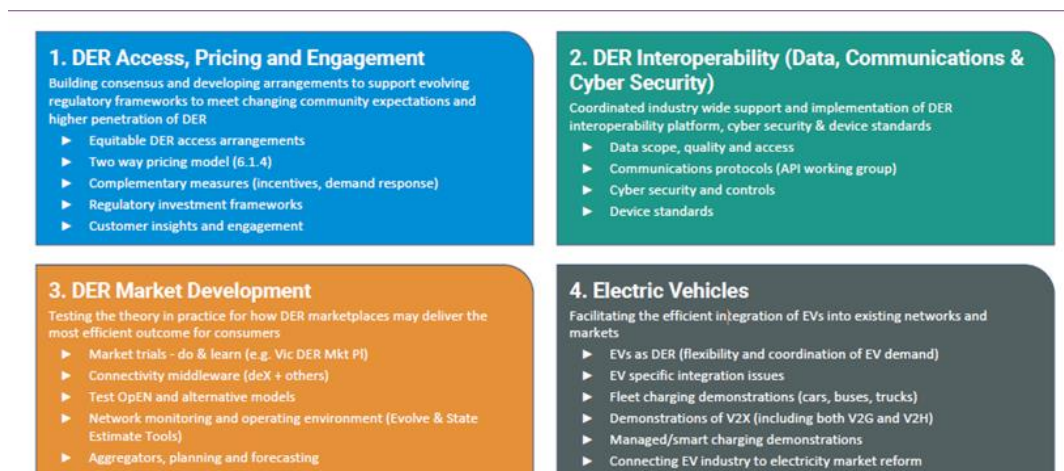
- Provide advice and recommendations to the DEIP DER Steering Group regarding industry needs and priorities for technical standards, data and interoperability capabilities to best facilitate DER integration.
- Oversee the process and provide governance for the development and acceptance of DER technical standards, guidelines and protocols by the SDIWG technical taskforces.
- Provide advice on the implementation of national DER technical standards, guidelines and protocols.
- Provide direction for DER integration technical research and demonstration priorities, including DER Max.
- Help coordinate industry engagement on DER integration technical requirements in an open and transparent manner.
- Undertake work as directed by the DEIP DER Steering Group.
- Provide the opportunity for knowledge exchange and information sharing across the industry and with all stakeholders including consumers.

Functions of SDIWG may alter as reforms to the governance of DER Standards and technical capabilities are agreed (i.e. Technical Standards for DER rule change). Revised functions, where considered major, would be agreed by SDIWG members.

4. Standards, Data and Interoperability Working Group and relation to wider DER Program

The Distributed Energy Integration Program (DEIP) is a collaboration of government agencies, market authorities, industry and consumer associations aimed at maximising the value of Distributed Energy Resources (DER) for all energy users. The DEIP steering group identified 4 workstreams that will be crucial in successfully integrating DER into the network and energy market resulting in the 4 DEIP working groups. These are detailed in the figure below.

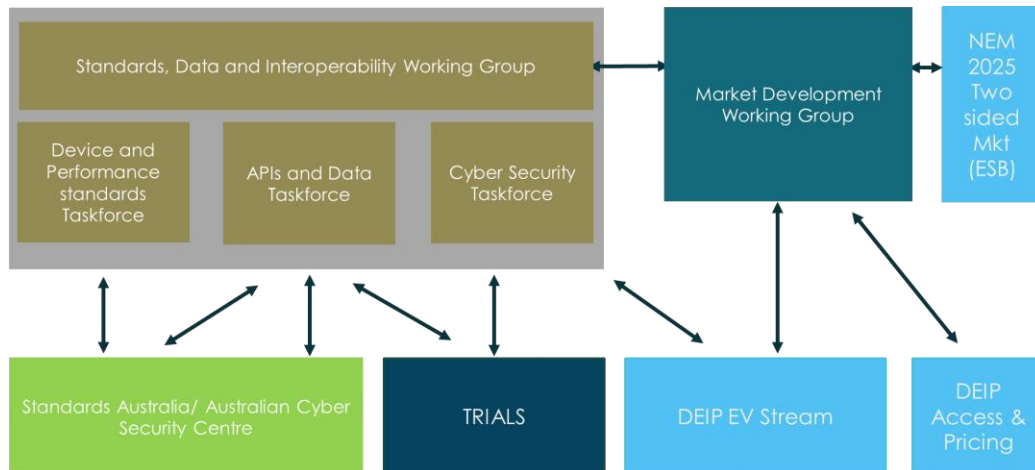
Figure 1: DEIP Workstreams January 2020



The Standards, Data and Interoperability Working Group (SDIWG) defined by these Terms of Reference has been established to deliver, coordinate and steer workstream 2 of this program - DER Interoperability (Data, Communications & Cyber Security).

The SDIWG will also facilitate the exchange of knowledge and information across the wider DER Program to ensure coordination of activities across the 4 workstreams identified by the DEIP Steering Group.

Figure 2: Standards, Data and Interoperability Working Group and its relation to wider DER Program



5. Technical Taskforces

There will be three key technical taskforces under the SDIWG workstream. These streams aim to set a common way for DER devices to be manufactured, the communication capabilities of these devices and the cybersecurity requirements of DER in the distribution system. Key stakeholders include AEMO, Distribution Network Service Providers (DNSPs), manufacturers, installers, retailers and aggregators, as well as the customers who own DER and the agents responsible for integrating consumer owned DER into the Network and wholesale Market.

Figure 3: SDIWG Technical Taskforces



It will be the responsibility of SDIWG to steer, provide oversight, and align the three technical taskforces.

The Device and Performance Standards Taskforce will focus on DER device standards, with an initial focus on inverters and demand response communications; with work already underway to update the AS4777 and AS4755 standards to support DER integration. It is expected that this taskforce will have strong links to Standards Australia, as well as to DNSP connection requirements and future DER performance standards that may be required by AEMO or state based regulators (i.e. SA OTR).

The API and Data standards Taskforce will be focused on the development of an industry standard API for programmatically sharing data amongst the organisations in the Australian electricity sector, as well as the data payloads required for key activities in DER integration such as forecasting, operating envelope communication (and hosting capacity constraints) and DER bidding, scheduling and dispatch.

The Cyber Security Taskforce this group will look at ways to implement key elements of the Australian Energy Sector Cyber Security Framework (AESCSF). It will work with the Australia Cyber Centre, Critical Infrastructure Centre, and the Cyber Security Industry Working Group as well as industry stakeholders including DNSPs, Device Manufacturers and installers to determine a set of cyber security standards and compliance frameworks for DER devices and communication.

Note: Each Taskforce may include sub-working groups to assist in the delivery of their work programs.

6. Representation

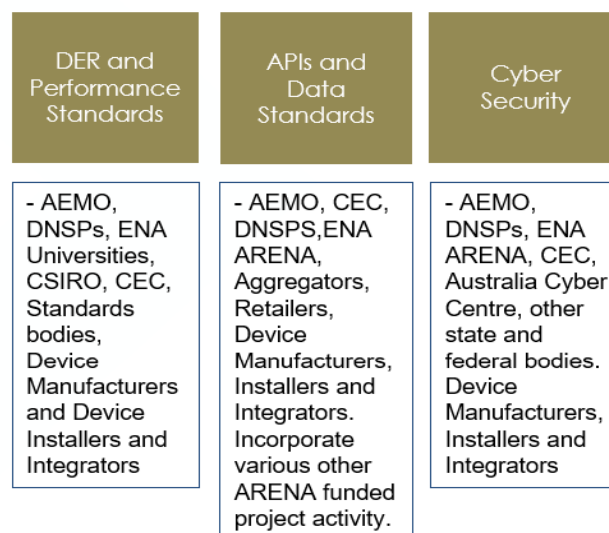
The initial members of this working group will be representatives of AEMO (chair), AEMC, ARENA, AER, CER, ESB, Standards Australia, CSIRO, Energy Consumers Australia, Australian Energy Council, Energy Networks Australia, Clean Energy Council, Smart Energy Council, PIAC, ANU representing universities and the chairs of the Technical Taskforces.

This group may be augmented over time to include other organisations as required.

There will be three taskforces under the SDIWG initially, and each will be formalising work already underway in each of the specific subject areas identified.

The technical taskforces will consist of a much wider group of stakeholders including installers, DNSPs and AEMO, as well as representatives of customers who own DER and their agents responsible for integrating it into the Network and wholesale Market. These taskforces will likely consist of the following:

Figure 4: Membership of the Technical taskforces



7. Meetings

Meetings will typically be held monthly. Any cancellations will be notified via email prior to the meeting, and rescheduled to an appropriate time.

The primary meeting forum will be via video conference, however AEMO will provide meeting facilities for at least one of the AEMO offices listed below, and where possible video-conference facilities, between locations.

Meeting Location: AEMO Office:

Adelaide	Level 9, 99 Gawler Place, ADELAIDE SA 5000
Brisbane	Level 10, 10 Eagle Street, BRISBANE QLD 4000
Melbourne	Level 22, 530 Collins Street, MELBOURNE VIC 3000
Sydney	Level 2, 20 Bond Street, SYDNEY NSW 2000

Note – due to current COVID-19 restrictions, meetings will not be held onsite until further notice. Please refer to the meeting invite for video conference details.

8. Administration

AEMO will prepare and distribute all meeting correspondence via email, and manage the SDIWG webpage.

AEMO will endeavour to provide stakeholders with:

- A draft agenda and relevant meeting papers five business days prior to the meeting.
- A meeting outcomes paper five business days after the meeting.
- AEMO will provide Chair, secretariat services and subject matter expert(s) for each meeting.
- Once approved, copies of the meeting papers will be published on the SDIWG webpage.

9. Resourcing

AEMO will provide chair and secretariat services to the SDIWG.

To avoid doubt, any expenses incurred as a result of attending meetings or activities associated with the SDIWG are at the expense of the representative's employer.

For more information, contact: DERSDI@aemo.com.au