DEIP EV Grid Integration Working Group

Presentation to the Forecasting Reference Group (FRG)

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2021 Work Plan

DISCOVER

Participants see value in a **central forum for key industry and government stakeholders to collaborate and coordinate** EV grid integration activities, and an opportunity to **promote policy and regulatory development before wide scale EV adoption begins**

The DEIP EV Working Group consists of representatives from the below organisations:

LEARN

The Working Group identified a number of learnings:

- Identified priority data needs, collection mechanisms and delivery options, with recommendations summarised in the **EV Data Availability Taskforce report** (Feb 21)
- Identified gaps in standards landscape that might negatively impact consumers. **EV Grid Integration Standards Taskforce report** due for publication Q2 2021.
- Despite principles agreed, reform of **EV high capacity tariffs arrangements is challenging** at a national level and required individual jurisdiction, regulator and DNSP level engagement.
- Identified EV-specific principles to apply to existing residential tariff and demand management discussions. **EV Residential Tariffs and Incentives report** for publication Q2 2021.

DESIGN*

A: EV Grid Integration Reference Group

Establish a reference group to monitor and progress recommendations from finalised taskforces, and be an active knowledge sharing forum. A program of speakers from projects, key reports & international connections will be developed.

B: Data Availability Recommendations

Progress four EV Data Availability Taskforce recommendations, including an opportunity assessment for an EV charger register.

C: Customer Insights

Map current EV customer insights activities and opportunities (e.g. ARENA trials, EQ customer survey, RACE for 2030). Identify key knowledge gaps & potential studies/activities to address customer insights gaps.

D: Best Practice EV Connection Guideline

Using knowledge from existing projects and future fuels public charging round, assess existing connection roadblocks and develop an EV high capacity public charging connection guideline.

Lead

AEMO

ARENA

AEMO

ARENA

Energy Networks Australia

ELECTRIC VEHICLE COUNCIL

*Note that later in 2021, the EV WG will also consider undertaking a study into exploring benefits and drawbacks of different high capacity tariff models and provide recommendations

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From https://arena.gov.au/assets/2021/03/deip-ceo-forum-18-march-2021.pdf

DEIP EV Data Availability Taskforce Report

- To coordinate the transition to electrified transportation, the energy sector needs access to detailed and relevant information to support decision-making processes.
- DEIP EV Data Availability taskforce report seeks to identify EV data needs from an energy sector perspective, alongside potential collection mechanisms and delivery options for EV data.

🔴 **Immediate** 🟡 **Important** 🟢 **Future**

	Static		Dynamic	
	EVSE Standing Data Location and characteristics of EVSE to inform network modelling and forecasting	🔴	**EVSE Operations** Data on EV charging operations for research purposes	🔴
	Vehicle Standing Data Vehicle registration and sales information to inform uptake projections	🔴	**Vehicle Operations** Detailed vehicle usage data for research purposes	🟡
	Consumer Characteristics Characteristics of EV owners/drivers for research purposes	🟡	**Consumer Experience** Ongoing customer experience data for research purposes	🟡
			Market/Operational Data Data used in the operation of energy and services markets	🟢

DEIP EV Data Availability Taskforce Report

EVSE Standing Data Register

Capture individual details of all EVSE in an access-controlled register

Recommendation

In 2021, AEMO – in consultation with stakeholders – will undertake an opportunity assessment to establish a minimum viable product for an EVSE standing data register under the existing electricity rules and regulatory frameworks

Vehicle Standing Data Register

Centralise EV registration data in a standard format, providing both aggregate data and access-controlled individual data

Recommendation

The Working Group will engage with Government transport departments and committees to communicate the energy sector's need for consistent and streamlined reporting of vehicle standing data and to support reform and development in this space. 'Quick win' solutions will be pursued where available to support current initiatives

Market/Operational Data Services

Systems enabling EVs to participate in energy and services markets alongside other DER

Recommendation

To ensure EVs have a level playing field alongside other forms of DER, these data requirements are best progressed in the broader context of the DEIP Standards, Data and Interoperability Working Group

Research Data

Provide research institutions and industry organisations with the EV data they need to progress their work

Recommendation

The Working Group will work with the relevant Energy Security Board (ESB) Data Strategy workstreams to pursue the delivery options proposed in this report within a broader energy data context

DEIP Vehicle-Grid Integration Standards Taskforce Report

- The absence of comprehensive Vehicle-Grid Integration (VGI) standards could increase the risk of an inefficient transition to electrified transportation for consumers.

- DEIP VGI Standards Taskforce report seeks to provide a basis for informed decision-making during this transition by identifying relevant VGI standards gaps and developing an understanding of the international VGI standards landscape.

1. Charging Interoperability

- Explore how different charging configurations might influence interoperability standards, and whether any specific configurations might limit interoperability opportunities.
- Explore how standardisation of VGI communications or control methodologies could be aligned with global norms.

2. Energy and services market integration

- Explore where standards might help future-proof participation of EVs in energy and services markets.

3. Disturbance performance and grid support

- Explore whether current and emerging feature sets of EVs and EVSE could play a role in autonomously or inherently supporting grid operation, and whether standards might influence or enable this capability.

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