DER Register Background Information

Reading for the pre-consultation meeting

November 2018

In this pack

This pack provides a background on the DER Register and Guidelines.

These slides will not be used in the pre-consultation workshop

1. Key Links
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Key Links

1. [AEMC Final Determination](#)
2. [Final Rule (3.7E)](#)

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DER Register Rule Change Background

The Rule Change

13 September 2018: AEMC made a final rule determination on NER clause 3.7E[1]

- By 1 December 2019, AEMO must:
  a) Establish, maintain and update a static register of DER[2] in the NEM
  b) Develop, maintain and publish a DER Register Information Guideline in consultation with industry
  c) Share disaggregated data with network businesses (subject to privacy provisions)
  d) Report aggregate DER information publicly
  e) Consider DER information in load forecasts and report on the use of DER information
  f) Share information with emergency services

1. https://www.aemc.gov.au/rule-changes/register-of-distributed-energy-resources
2. **DER**: Distributed Energy Resources

The Rule Change

- Under this Rule NSPs[1] must:
    a) Collect the data outlined in the DER Register Information Guidelines
    b) Provide AEMO with their known information about existing DER in their network by 1 December 2019

1. **NSP**: Network Service Provider

The Rule Change

NER 3.7E focuses on these **key areas** for inclusion in the DER Register Information Guidelines

Collection

Definition

Access

DER Register

Storage

Reporting

Integrity

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Scope – what is DER

What is it?	Example	Collection	Worth noting
Load — • 'Active' load - responsive to either the demand for, or price of, electricity • Already reported via DSP[1] Information Guideline[2] • DER Register will only include the relevant information already being reported under the DSP Guidelines. • Includes contracted DSP and non-scheduled load/unscheduled generation information	Manufacturing Hot water load Battery storage	Demand Side Participation Guideline	• Does not include passive loads • DER Guideline doesn't define collection of load variables
Generation — Standing data relating to a *small generating unit:* • <30MW • Exempt from registering with AEMO	Battery storage Rooftop solar	Distributed Energy Resource Guideline	• DER Guidelines specify the minimum size (kW) of DER generation devices

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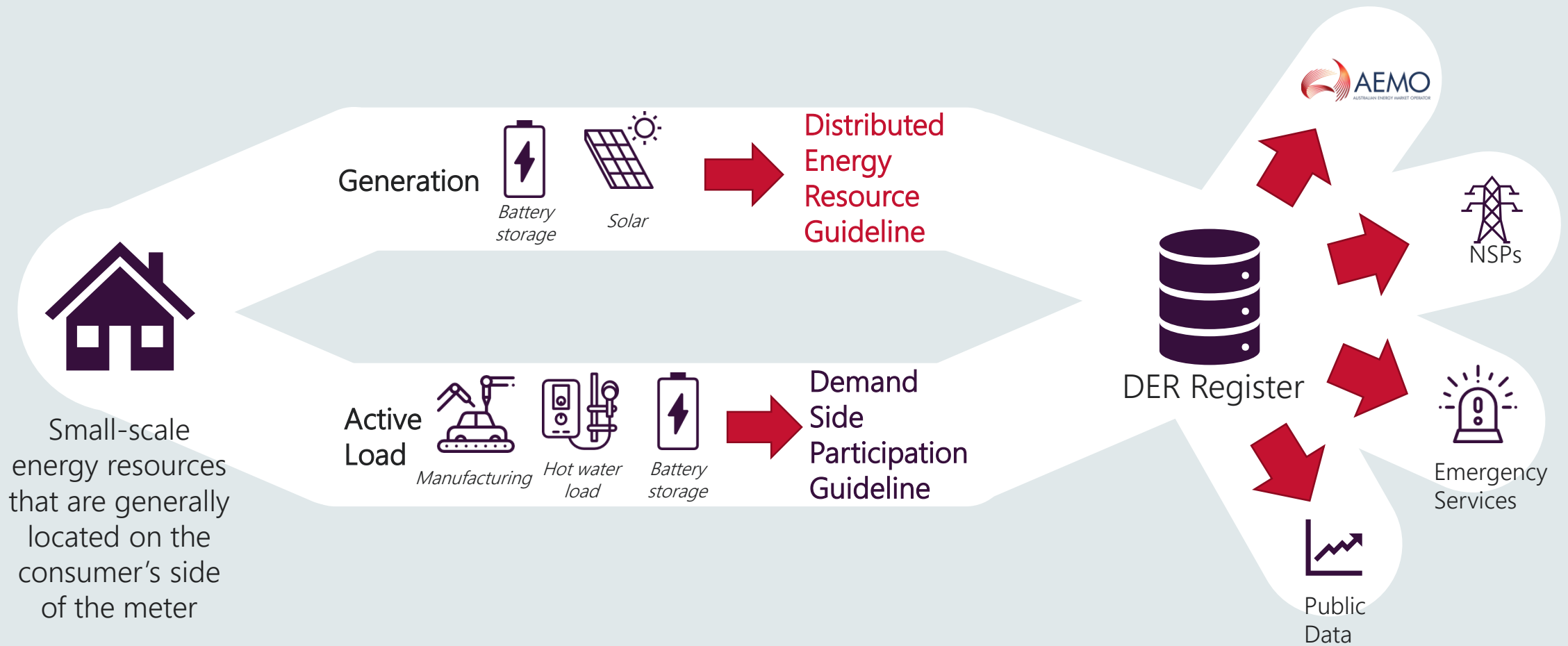
The **Collection** of DER Register data will be facilitated through the DER Information Guideline (generation) and the existing DSP Information Guideline (active load).

The DER Register will be **stored** by AEMO. **Reporting** and **Access** of the DER Register will reference information compiled from both DER and DSP sources.

Scope - purpose

How will AEMO use the Register?
- To increase system security through greater visibility of where distributed energy resources are connected in the NEM
- To better understand the changing demand and supply trends across different customer categories to ultimately improve AEMOs load forecasts and supply models

What reporting will AEMO do?
- Must annually publish the extent that the information received has informed AEMO's development or use of load forecasts or the performance of its power system security responsibilities
- Must publish an aggregated report of DER Register information. AEMO will seek input from industry at the workshop on the following elements of the DER Register:
  - Reporting frequency, timing, format
  - Contents, including variables published and level of aggregation
  - Appropriate level of aggregation to maintain information confidentiality

Workshop Background

Workshop goals

✓ To explore how the DER Register will be used by industry and AEMO

✓ To gain early insights to feed into the first stage of formal consultation and draft DER Information guidelines

✓ For industry and AEMO to come to a shared view on the DER Register key issues and identify where further work may need to be done prior to the formal consultation in early 2019

✓ Confirm scope of the Rule change

> The end game is to develop a DER Register and Guideline that is simple, usable and not resource intensive.

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Data model – our preliminary thoughts

- The following are some preliminary variables that could be considered for the DER Register

- Variables for collection will be discussed in detail at the workshop. **Prior to the workshop, consider what variables would be of use for your organisation and the pros/ cons of collecting these**

Category	Sub-category	
NMI(s)	DERID (unique ID for each DER device)	
DER devices	- Fuel source - Make, model, manufacturer - Storage capacity (kWh, if applicable) - Capacity (kW) - Is the device remotely controllable	- Installation date - Installer - Registered for Ancillary service provision - Device part of aggregated control - What standard applies
Inverter	- Make, model, manufacturer - Capacity - Installation date - What standard applies	- Changes made to default manufacturer settings - Inverter enabled mode of operation
Trip settings	Frequency	Voltage
Runback scheme		
Decommission date		

Themes for discussion

During the workshop, activities will be facilitated around the DER data model and these key themes. To prepare for the workshop, have a think about how each of these areas will affect your organisation (or the organisations you represent).

Collection
- What collection methodology should be considered?
- What submission methodology should be considered?
- How often should submissions be made?
- What are the risks/ benefits?
- What are the costs?

Reporting
- What variables would be useful in a public report?
- What variable should aggregation be based on (postcode, capacity size bins, etc)?
- How often should the report be updated?
- How should the report be delivered (e.g. csv file, etc)

Access
- How do users anticipate interacting with the Register?
- What is the most convenient way for users to access the data?
- What are the risks/ benefits?
- What are the costs?

Privacy and confidentiality
- What issues do participants see?
- How do we mitigate against these issues?

Timeline

Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19

AEMO Project Planning

Formal Consultation

1 Dec 19: System go-live

Pre-consultation workshop

Formal consultation begins (issues paper & draft Guidelines)

Draft Determination

Publish final report and Guideline

Acronyms

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
DER	Distributed Energy Resources
DSP	Demand Side Participation
NSP	Network Service Provider