

Register of distributed energy resources

Final determination and rule published

The Australian Energy Market Commission has made a final rule that amends the National Electricity Rules to establish a process by which the Australian Energy Market Operator, network service providers and other interested stakeholders may obtain static data on distributed energy resources across the national electricity market.

Overview of the final rule

The Commission has made a final rule consistent with the rule change request, which:

- places an obligation on the Australian Energy Market Operator (AEMO) to establish, maintain and update a register of static data for distributed energy resources (DER) in the national electricity market (NEM), including small scale battery storage systems and solar.
- requires network service providers to request from their customers the specific DER generation information outlined by AEMO in guidelines (through the network connection process and deemed standard connection contract) and provide this to AEMO
- introduces a data sharing framework that obliges AEMO to share disaggregated data regarding the locational and technical characteristics of devices in the DER register with network businesses in relation to their network areas (including data that was not reported through their connection application processes or contracts), subject to privacy laws and protected information provisions in the National Electricity Law
- places an obligation on AEMO to periodically report publicly relevant information from the DER register at an appropriate level of aggregation
- allows AEMO to provide DER register information to an emergency services agency if requested for the purposes of that agency's response to an emergency or for planning in relation to emergency responses.

Context

The energy sector is undergoing a major transition driven in part by the increasing uptake of DER by consumers and businesses. These resources provide opportunities to manage the power system in new ways, particularly with advanced metering and remote control.

In this context, there is an emerging need for network service providers and AEMO to have greater visibility over DER as their aggregate impact on the power system grows. The need to manage the risks brought about the uptake of these new technologies led the COAG Energy Council submit the rule change request.

Improved information on the static characteristics of DER devices through the register will represent a first step towards increasing system visibility over DER. Issues associated with the further integration of DER in the NEM are the subject of a number of other processes, including a joint Energy Networks Australia / AEMO consultation process and recommendations arising from the Commission's *2018 Economic Regulatory Framework Review*.

This rule change also forms part of a broader package of ongoing initiatives in the sector to unlock the value of data to empower consumers. The Commission has taken into account the interactions between this rule change and data projects being undertaken by other stakeholders. In particular, the DER register will contribute to the broader national electricity market data strategy currently being developed by the Energy Security Board.

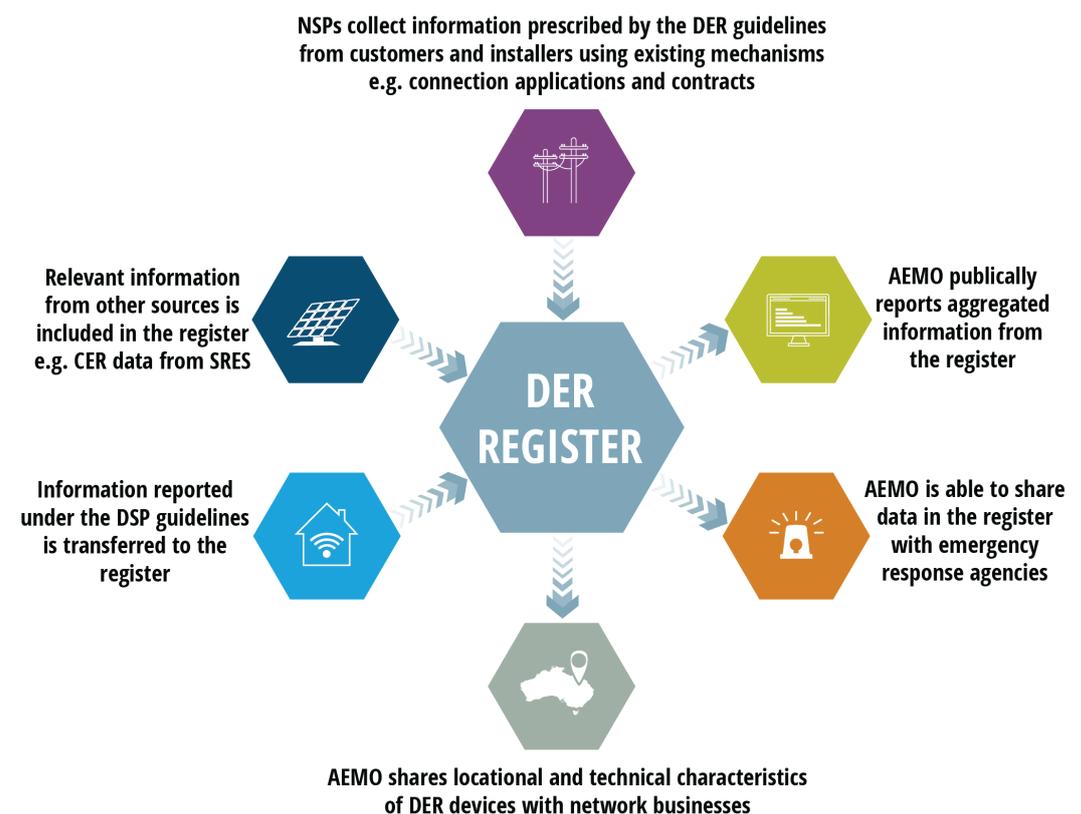
Benefits of the final rule

Having regard to the issues raised in the rule change request, the Commission is satisfied that the final rule is likely to contribute to the achievement of the National Electricity Objective by affording the following benefits:

- Promoting better investment decisions: the introduction of a DER register will assist NSPs with network planning by affording them improved visibility over the DER installed on their networks. Increasing visibility of DER should result in a more efficient, less conservative approach to asset investment.
- Improving operation of the power system: improved visibility over DER should facilitate improvements in the quality of AEMO's load forecasting and modelling. AEMO should also be able to improve its operational processes by being able to access information on certain technical characteristics of DER devices, such as trip settings. In addition, increased visibility should assist NSPs with network operation through increasing the capability of their networks by assisting with optimising distribution network load shedding and forecasting future potential quality of supply issues.
- Sharing information with third parties: periodic reporting by AEMO of DER register information on an aggregated basis may be of benefit to bodies such as to policy-makers, researchers, consultants and other market participants or investors.

The final rule is consistent with the Commission's position in the draft rule but incorporates minor drafting changes from the draft rule to improve clarity.

Figure 1: DER register overview



Source: AEMC

Design considerations

While there will be benefits in NSPs and AEMO, in particular, having access to static data on DER, these benefits are likely to be incremental and commensurate to the nature of the information collected. The design of the DER register has therefore been formulated to avoid significant cost outlays by AEMO or other Registered Participants, by avoiding

The final rule gives AEMO and networks visibility of where DER is connected so they can plan and operate the power system more efficiently.

duplicating existing data or introducing new reporting obligations on market participants.

Where possible, the Commission has leveraged existing mechanisms under the National Electricity Rules (NER) for the collection of data by NSPs. While the Commission notes concerns raised by stakeholders regarding the effectiveness of these mechanisms, making use of existing processes to collect data for the register will be more cost efficient than other alternatives, and will create an opportunity for NSPs to work with installers and customers in their network area to improve compliance with existing data submission requirements.

The Commission is of the view that establishing a DER register in the NER will provide a basis for other entities (such as jurisdictional regulators, as well as industry bodies) to require or encourage submission of the appropriate data to NSPs by installers on behalf of customers.

In that sense, the Commission recommends that state safety regulators investigate how existing compliance mechanisms could be used to improve submission of appropriate data on DER to NSPs (e.g. whether it is appropriate to amend the data collected under electrical safety certificates for use by NSPs).

Implementation / commencement

The final rule will commence operation on 1 December 2019. The transitional provisions, which will commence on 18 September 2018, include an obligation on AEMO make and publish the first DER register information guidelines by 1 June 2019, and for NSPs to provide AEMO with all information that they currently hold which would be DER generation information under the new rule by the commencement date of the rule.

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