



DER Register
Delivery Team 2 – Process Design
May 2019, Meeting 2

Background



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Rule Change

Distributed Energy Resources (DER) Register (the Register) is to improve power system operation and security through greater visibility of where DER are connected in the NEM

- Rule made on 13 September 2018, placing obligations on AEMO and NSPs for delivery by 1 December 2019

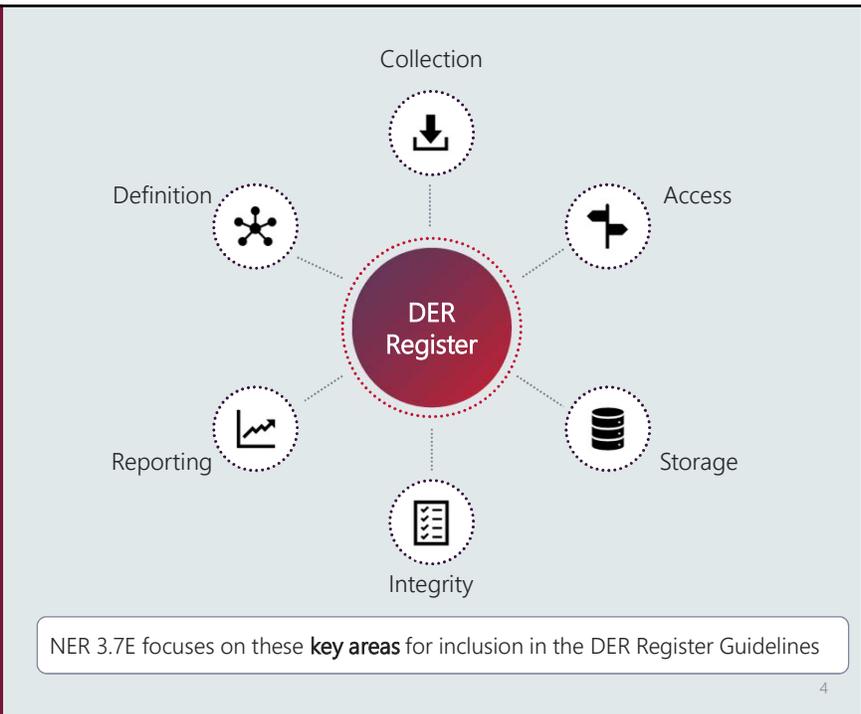
AEMO obligations	NSP obligations
<ul style="list-style-type: none"> a) Establish, maintain and update a DER Register b) Develop, maintain and publish DER Register Information Guidelines c) Share disaggregated data with NSPs d) DER Register Report on website e) Consider DER information in load forecasts f) Share information with emergency services 	<ul style="list-style-type: none"> a) Adhere to AEMO's DER Register Information Guidelines b) Collect and submit 'small generator information' as it relates to 'connection points' c) Update connection frameworks to support provision of information from connection applicants d) Provide AEMO with their known information about existing DER in their network



DER Guidelines Consultation

NER 3.7E specifies the minimum requirements for the DER Register.

To achieve efficient outcomes, as intended by the Rules, we also need to look at all existing users and processes, and avoid duplication as much as possible.

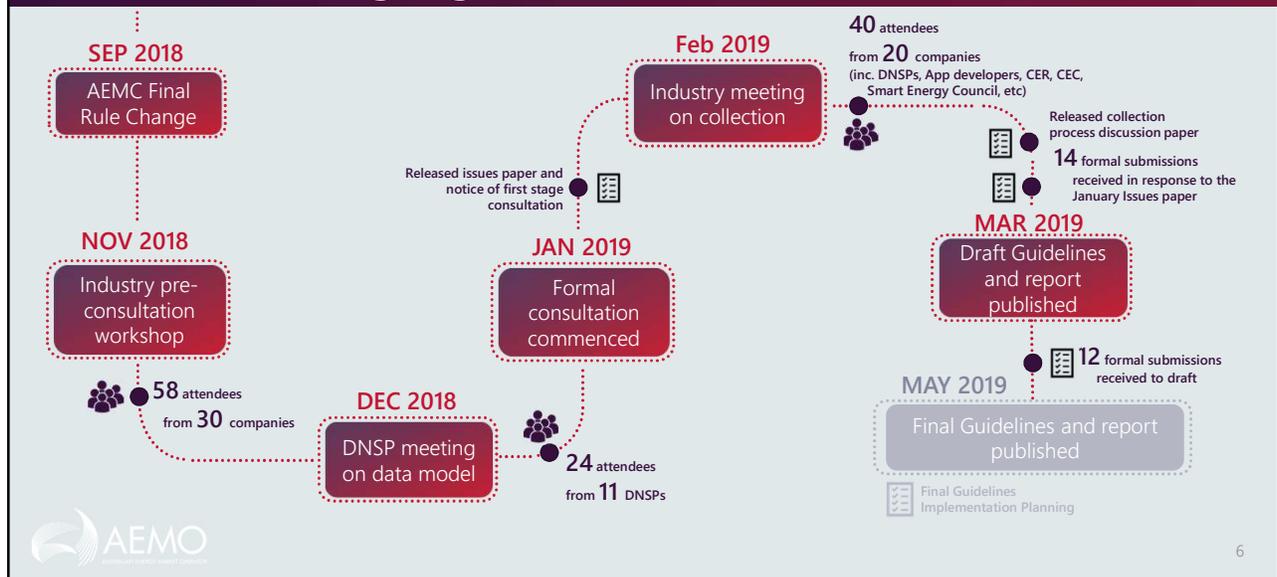


NER 3.7E focuses on these **key areas** for inclusion in the DER Register Guidelines

Summary of stakeholder engagement



Previous engagement



Stakeholder views on general design elements

- Support DNSP compliance and installation requirements compliance
- Accommodate diverse existing connection processes, DER installation / change / decommissioning
- Preference for on-site input ('as-installed'), connection agreements may not capture all installed equipment
- Simplify and keep cost effective, minimise installer burden, support data provision to support quality

Stakeholder views on data integrity

- Submission of data by installers
 - Mixed views on whether installers should be providing data to the Register
 - Some NSPs wish to review and confirm every submission (even if no exceptions flagged)
 - Some NSPs only receive data from retailers post-installation for automatic connection approvals
- Installer compliance challenges could undermine data quality
 - NSPs don't have any recourse for compliance deficiencies
 - NSPs don't have obligations for the installation beyond agreeing connection parameters
 - AEMO should work directly with CEC to define compliance regime, including access to AEMO data Register
 - Installers may not have access to the information requested
- Incentives on installers
 - Link to STC eligibility best approach to gathering quality data from installers
 - Jurisdictional safety bodies should have a role in creating obligations on installers
 - AER deemed basic and standard connection contracts will need changing (expedite?)

Stakeholder views on data integrity

- Post-installation setting changes
 - Difficult to track by NSPs
 - OEMs should support their customers and connection agreements should be upheld
 - Consider the role of sourcing settings direct from OEM's to support the Register
- Post-submission validation check
 - Not clear what AEMO is proposing?
 - NSPs might get info that could void connection agreements, leading to customer backlash
 - Apply principles of simplicity, up-front validation and default data to minimise issues
- Notifications
 - Notifications should be provided when the installer accesses a record and when they validate any data
- Privacy
 - Don't rely on privacy-by-design

Stakeholder views on Register use

- Installers need to be supported with training, education and engagement
- Technical support expectations
- Editing rights
 - Limit role of installer in editing data (varying views)
 - NSPs need full editing rights
 - NSP control of what installers can edit
- Manual entry can also be minimised with use of databases
 - NSPs should not have to duplicate databases that AEMO has access to
 - AEMO systems should seek to minimise NSP effort when entering device information, support national consistency with an AEMO-developed app that NSPs could manage to draw on different data sources
 - Equipment serial numbers should link to OEM databases to prevent non-approved products being added to the register

Actors



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Actor roles: compliance

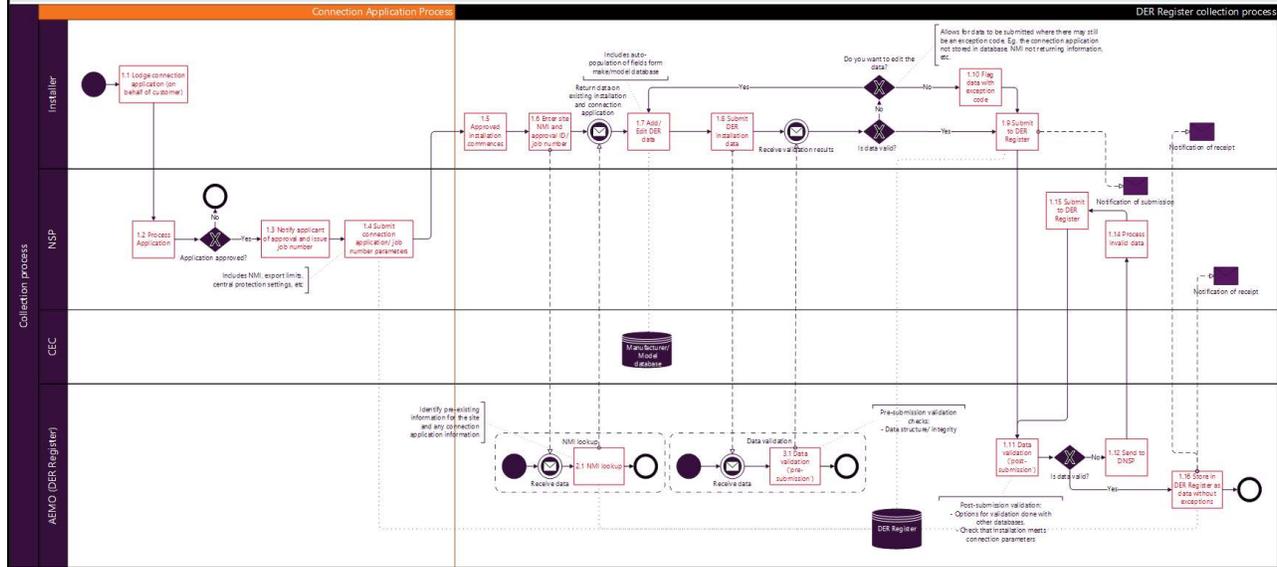
- AEMO is obliged to design the Register to collect small generator information in relation to '*connection points*'.
- NSPs are responsible for
 - Providing data to the DER Register
 - Defining connection agreement terms and technical parameters
 - Informing customers of their obligations in connection agreements
 - Taking action when connection agreement terms have been breached
- Customers are responsible for ongoing compliance with their connection agreements
- Installers are responsible for installing equipment in accordance with the relevant Australian Standards and connection agreement terms

Actor roles: compliance

- Compliance will be a key factor in ensuring data integrity
 - Register introduces a new data-entry and confirmation obligation
 - AEMO proposes to use databases and default information to support installers
 - AEMO will develop training and information to support compliance
- Installer incentives
 - Role and opportunity to draw on STC eligibility discussed in draft report
 - AEMO is communicating with jurisdictional safety bodies, cannot rely on this option NEM-wide
 - As per the AEMC rule change NSP's need to update connection agreements
- NSP recourse is a matter for NSPs
 - Register does not change status quo
 - Avenues include CEC, state safety authorities and/or licencing bodies

Draft collection process

Draft collection process



Collection process options

	Inquiry, Application and Agreement	App'd data	Installation	As-installed data	Review, accept / compliance	Submit to DERR	Confirmation
Option 1	Customer NSP	NSP	Customer Installer	Installer	Installer NSP	NSP	Installer NSP
Option 2	Customer NSP	NSP	Customer Installer	Installer	Installer NSP	NSP	Installer NSP
Option 3	NSP defines automatic approval	NSP	Customer Installer	Installer	Installer NSP	NSP	Installer NSP
Timing	As per NER	20 Business days from commissioning date			Idling DER record: Automatic exception creation at 365 business days for NSP review		

Collection process options

- Proposed installation date definition:
 - "Date of commissioning a new or altered small generating unit or decommissioning of an existing small generating unit"
- Notifications to support the 20 business day period?
- Automatic submission timeframe?
- Notifications at completion?
- Further notification options?

Connection processes actors

Connection process	Expected users	Role of default data	Role of databases	Role of AEMO
Basic / Standard	DER Retailers Electrical contractors Electricians/installers	High	High	Very low
Negotiated	Electrical contractors Engineering firms	Low	Very low	Very low
>5MW	Developers Electrical contractors Engineering firms	Very low	Very low	TBC

Connection processes

- Any other connection and installation practices we need to consider?
- NSP views of metering considerations?

Validation and integrity

Changes to settings

- Editing rights
 - NSPs will have full editing rights
 - Third parties will have editing rights controlled according to approved installation
 - NSPs will be informed if data changes from approved data
- AEMO understand the challenge of tracking settings changes post installation
 - Remote device setting changes by OEMs is possible
 - Status quo not changed by Register implementation
 - Register creates single source of truth
 - DER equipment data creates opportunity to track future changes – any additional data points needed?
 - AEMO happy to keep working on this with OEMs and NSPs beyond the Register implementation

Data validation

- Collection process provides validation against expected data, as approved by the NSP
- Post-submission validation check
 - AEMO proposes to support integrity with post-submission checks
 - Current considerations include:
 - Existing databases (possibly CER)
 - Standards
 - Open to additional considerations for automated assessments

Use of default data / databases

- Objective is to reduce manual entry
 - Use of CEC databases is being progressed (terms of use need to be acknowledged)
 - Not clear how OEM databases can be directly accessed from the Register
- AEMO will collaborate with NSPs to implement default data capabilities

Technical support

- User training
 - AEMO to develop training material and program for third-parties to access Register
- Technical support
 - User-access and use of system will be simplified to maintain self-registration and use
 - AEMO Service Hub will be point of contact for user queries
- Interfaces with AEMO
 - Via API

Next steps



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Next steps

- Next meeting proposed for week of 20th May



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Key Dates

Item	Indicative Date	Action
Submissions on Issues paper close	7 March 2019	Consultation
Submissions on data collection process discussion paper due	18 March 2019	Stakeholder Feedback
Draft Guidelines (inc data model) and report published	29 March 2019	Consultation
Draft technical specification	April 2019	System Implementation
Submissions on draft guidelines and report close	15 April 2019	Consultation
Final Guidelines (inc data model) and report published	31 May 2019	Consultation
Final technical specification	June 2019	System Implementation
System go-live in pre-production	September 2019	System Implementation
System go-live in production	31 November 2019	System Implementation

Contact



<https://www.aemo.com.au/Stakeholder-Consultation/Consultations/NEM-Distributed-Energy-Resources-Information-Guidelines-Consultation>



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