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# **Guide to DER Register B2B Portal**

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**1.01 Final**  
**February 2020**

Provides information to NSPs on how to use DERR Portal, to add and manage DER records, AC Connections, and DER Devices.

# Important Notice

## **PURPOSE**

This Guide to DER Register B2B Portal (Guide), prepared by AEMO, provides guidance for DERR under Rule 3.7E of the NER (Rules).

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Available to the public.

## **DOCUMENT IDENTIFICATION**

Business custodian: EMS

IT custodian: IT Development

Prepared by: Technology, Technical Writers

## **VERSION HISTORY**

0.1 Created Guide to DER Register B2B Portal.

0.2 Added sections on new DER record, AC connections and DER Devices, and downloading Receipts.

1.01 Added sections on creating new DER record, and linking AC Connections and Devices

Last update: Thursday, 20 February 2020 1:39 PM

## **DOCUMENTS MADE OBSOLETE**

The release of this document changes any previous versions of Guide to DER Register B2B Portal.

## **FEEDBACK**

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's support hub.

# Contents

<b>Introduction</b>	<b>1</b>
Purpose	1
Audience	1
How to use this guide	1
What's in this guide	2
<b>Need to Know</b>	<b>3</b>
System requirements	3
Glossary	3
User rights access	4
Setting a participant	5
Accessing the DER Register Portal	6
Related rules and procedures	6
<b>Using the DER Register B2B Portal</b>	<b>7</b>
AC Connections and DER Devices	7
DER Register Actors	8
DER Record Status	8
<b>Creating a New DER Record</b>	<b>9</b>
Adding DER Installation Information	9
Adding AC Connections and DER Devices	13
Validating the DER Record	17
Submitting the DER Record	18
<b>Viewing Existing DER Records</b>	<b>19</b>
Viewing and Using the DERR Dashboard	19
Searching DER records by NMI	21
Filtering DER Records	22
Viewing Individual NMI Details	24
Viewing DER Record Versions	25
<b>Managing DER Records</b>	<b>28</b>
Resolving Exceptions	28
Editing an existing DER Record	32
Confirming a DER Record	34
Viewing DER Record Versions	36
Granting and Blocking Access	37

Granting Access to DER Record .....	38
Blocking Access to DER Record .....	40
<b>Managing AC Connections and DER Devices .....</b>	<b>43</b>
Adding AC Connections .....	43
Editing Existing AC Connections .....	46
Adding DER Devices .....	50
Editing Existing DER Devices .....	52
Linking DER Device to an AC Connection .....	55
Decommissioning AC Connections and DER Devices .....	59
<b>Downloading Receipts .....</b>	<b>63</b>
<b>Managing DER Admin .....</b>	<b>66</b>
Connection Manager Contact Details .....	66
Adding and Removing Approval Controls .....	67
Adding and Removing Inverter Default Settings .....	69
<b>Appendix: First Validation Pre-submission .....</b>	<b>73</b>
<b>Appendix: Second Validation Pre-submission .....</b>	<b>78</b>

# Introduction

<b>Purpose</b> .....	<b>1</b>
<b>Audience</b> .....	<b>1</b>
<b>How to use this guide</b> .....	<b>1</b>
<b>What's in this guide</b> .....	<b>2</b>

## Purpose

This guide explains how NSPs use the DERR Portal to:

- View existing DER records,
- Create new DER records,
- Manage AC Connections and DER Devices associated with a DER record,
- Validate installation data before submission,
- Resolve exceptions and resubmit data,
- View receipts generated for completed jobs,
- Manage Preferences, and
- Grant or block DER record access for installers.

## Audience

This guide is relevant to Network Service Providers (NSPs) who require an understanding of the DER Register Portal.

The secondary audience is AEMO administrators wanting to know the user rights management (URM) entity to create and manage participant users.

## How to use this guide

- This guide is written in plain language for easy reading.
- Where there is a discrepancy between the National Electricity Rules (NER), and information or a term in this document, the National Electricity Rules (NER) takes precedence.

- Where there is a discrepancy between the Procedures, and information or a term in this document, the Procedures take precedence.
- **Text in this format** indicates there is a resource on AEMO's website, for details, see [References](#).

## What's in this guide

[Introduction on the previous page](#) provides an introduction of DERR Portal .

[Need to Know on page 1](#) lists the prerequisites, information about accessing the DER Register Portal and provides the URM entity required for Participant User access.

[Using the DER Register B2B Portal on page 7](#) describes the DER Register Portal menu, DER Register actors and DER Record status.

[Creating a New DER Record on page 9](#) details how to create a new DER record in the DER Register Portal

[Viewing Existing DER Records on page 19](#) describes how to view and use the DER Register dashboard, searching and filtering DER records, and viewing individual NMI details.

[Managing DER Records on page 28](#) provides instructions on how to edit and confirm DER records, view DER record version and grant and block access to DER record.

[Managing AC Connections and DER Devices on page 43](#) describes how to add AC Connections and DER Devices to a DER record, link DER devices to AC connections, and decommissioning AC Connections and DER devices.

[Downloading Receipts on page 63](#) provides information on how to download installation receipts.

[Managing DER Admin on page 66](#) describes how to manage connection manager details, approval controls and inverter default settings.

# Need to Know

System requirements .....	3
Glossary .....	3
User rights access .....	4
Setting a participant .....	5
Accessing the DER Register Portal .....	6
Related rules and procedures .....	6

## System requirements

The DER Register Portal runs on both Windows and UNIX-like operating systems and requires:

- A compatible web browser (Google Chrome recommended).
- A monitor capable of 1024 x 768 screen resolution.
- Access to MarketNet.
- A user ID and password provided by your company's participant administrator. (PA) who controls access to AEMO's market systems.

## Glossary

### **Account-holder**

Any person (non-NSP) holding an account with AEMO that allows access to the DER Register. This may be a DER installer or someone acting on behalf of a DER installer.

### **AEMO**

Australian Energy Market Operator

### **AEST**

Australian Eastern Standard Time

### **CEC**

Clean Energy Council

**DER**

Distributed Energy Resources

**DERR**

DER Register

**DNSP**

Distribution Network Service Provider

**MSATS**

Market Settlement and Transfer Solution for retail electricity

**NEM**

National Electricity Market

**NER**

National Electricity Rules

**NMI**

National Metering Identifier for electricity meters

**NSP**

Network Service Provider

## User rights access

To access the DERR Portal, Participant Users must have the appropriate user rights access. The access right determines the functionalities and transactions you can use to access the portal.

### DERR Right

All participants users for the DERR project will have the **DERR NSP USER - Distributed Energy Resources Registration NSP** assigned to them.

Right Name & Description	Grant/Revoke
DERR NSP USER - Distributed Energy Resources Registration NSP Right	<input checked="" type="checkbox"/>

Your Participant administrator (PA) can grant or revoke this right any time.

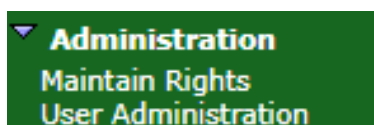
### Set up user access

Your company's participant administrator grants you permissions to use DERR.



To set up participant user permission:

1. In a web browser, open <https://menu.prod.nemnet.net.au/>. The AEMO REDIRECTION MENU page displays.
2. Click **MSATS** to continue. The MSATS login page displays.
3. Log in using your MSATS login details. The MSATS home page displays.
4. From the left menu, navigate to **Administration > Maintain Rights**.



For more details about participant administration and user rights access, see [Guide to User Rights Management](#).

5. Select the participant user you want to set rights for, and from under Action, click **Edit**. The participant rights details display.
6. From the Entity Description table, for the Distributed Energy Resources Registration permission entity, select the permission you want to grant the participant user. You can select from Delete, Create, Update or Read.

Interactive:				
Entity Description	Delete	Create	Update	Read
Distributed Energy Resources Registration permission	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Setting a participant

Where a Participant User has user rights assigned by more than one Participant ID, they select the Participant ID they want to represent using the **Set Participant** option, without having to log out, change IDs and log in again.

When you are using the Set Participant function, you can only log into the Markets Portal once on the same computer.

The participant you are acting for displays in the web portal interface. For permission to see other participant IDs using Set Participant, see your company's Participant Administrator.

## Accessing the DER Register Portal

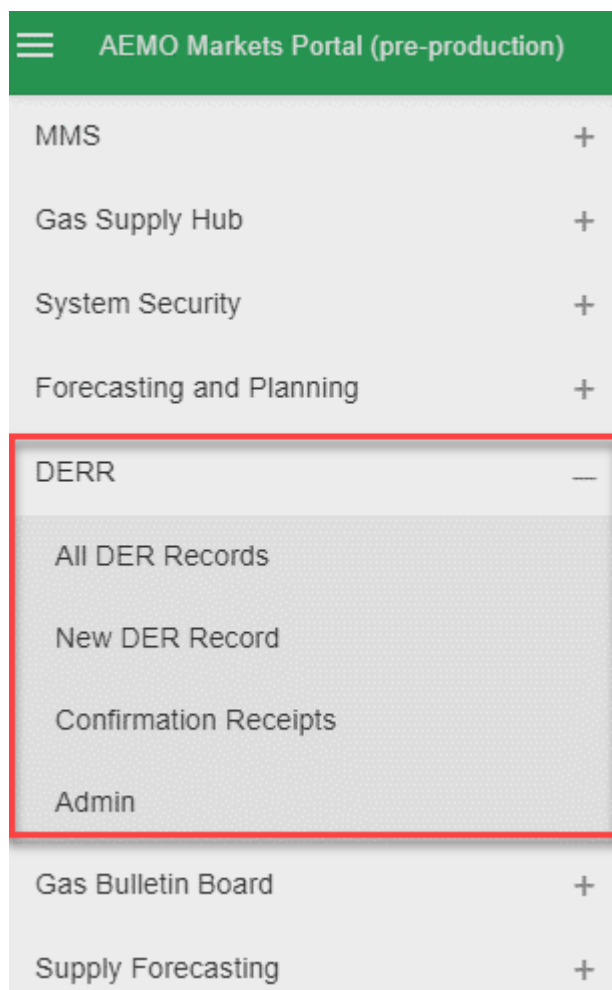
### Accessing DERR Portal

To access the DERR, log in to the Markets Portal using your ID and password provided by the AEMO system administrator.

Pre-prod: <https://portal.preprod.nemnet.net.au> (Used for industry testing only)

Prod: <https://portal.prod.nemnet.net.au>

Once you log in, the DERR menu displays on the left.



### Related rules and procedures

The following rules and procedures relate to DERR:

[DER Register Information Guidelines](#)

[DER Register Final Report](#)

# Using the DER Register B2B Portal

NSPs can access the DER Register B2B Portal via the Markets Portal. The DER Register B2B Portal consists of 4 different areas:

- **All DER Records** - Provides a dashboard view of all DER records within your organisation. You can use this page to search for, and filter specific DER records.
- **New DER Record** - Allows you to create a new DER Record and add information about associated AC Connections and DER Devices.
- **Confirmation Receipts** - Allows you to download a receipt for a specified NMI, Job Number and Installer ID.
- **Admin** - Allows you to manage Connection Manager contact details, NSP approval controls and Inverter Default Capacity settings.

<b>AC Connections and DER Devices</b> .....	<b>7</b>
<b>DER Register Actors</b> .....	<b>8</b>
<b>DER Record Status</b> .....	<b>8</b>

## AC Connections and DER Devices

### What are AC Connections?

An AC Connection refers to any form of DER generating unit/power source implemented at consumer premises. For example, inverters or rotating machines.

### What are DER Devices?

DER devices are consumer-owned devices that as individual units, can generate or store electricity.

Examples of DER devices include:

- Rooftop solar photovoltaic (PV) units
- Wind generating units

- Battery storage
- Solar farms

## DER Register Actors

Actor	Role
Account-holder	A person (non-NSP) holding an account with AEMO that allows access to the DER Register under controlled access conditions. This could be a DER installer, or someone acting on behalf of a DER installer (e.g. a business acting for its employees). For example, Solar Retailers.
AEMO System Administrator	AEMO staff authorised to manage the systems and data.
NSP	NSP employee with read and write access to DER, to submit data.
Participant administration	An NSP employee who grants participant users permission to use DERR.
Participant	NSP employees who use DERR.

## DER Record Status

The DER Register determines the installation progress of AC Connection(s) or DER Device(s). AC Connections and DER Devices can have one of the following statuses as it progresses through the connection and installation process.

Status	Description
Idle	When a record is "Initial" for 365 days, it becomes idle.
Initial	AC Connection/DER Device records exist but the DER system is not yet physically installed or operating.
Conditional	AC Connection/DER Device records exist, and the DER system physically is installed and operating. The DER record is waiting on an action from the user.
Confirmed	AC Connection/DER Device record exist and they DER system physically is installed and operating.

**Note:** The installation progress is associated with AC Connections and DER Devices and does not define an NMI installation progress.

# Creating a New DER Record

NSPs can create a new DER record by completing the NSP connection agreement form using the [DERR](#)<sup>1</sup> Portal. You can only submit data associated with an **approved** DER installation for a NMI to the DER Register.

**Note:** Any data submitted by the NSPs that is related to the [CEC](#)<sup>2</sup> must be non case-sensitive. AEMO systems automatically convert any submitted data to CEC specifications before storing this data.

## Who can create a new DER record

All NSPs can create a new DER record for their organisation.

## Before you begin

Ensure that you:

- Have received an application from the customer, DER installer or DER Retailer regarding an approved DER installation.
- Have information about the connections and devices to be associated with the DER record.

To create and submit a new DER record, NSPs must complete the following tasks (in this order):

- [Task 1: Add DER Installation information](#),
- [Task 2: Add associated AC Connections and DER Devices](#),
- [Task 3: Validate DER record](#), and
- [Task 4: Submit DER record](#)

## Adding DER Installation Information

1. From the Markets Portal, navigate to **DERR > New DER Record**. The Connection Agreement page displays.

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<sup>1</sup>DER Register

<sup>2</sup>Clean Energy Council

## Connection Agreement

DER Installation Details
Connections & Devices 0

DER Installation

\* Mandatory Fields

NMI (National Metering Identifier) \*

NMI

- Please enter a valid NMI.

2. On the **DER Installation Details** tab, in the NMI (National Metering Identifier) field, enter the NMI for which you want to create a DER record.  
If the NMI exists in the DERR, relevant DER installation fields are automatically populated.  
**Tip:** You can edit existing field details to ensure the data in the DERR is accurate.
3. Enter the mandatory information for the DER record.

Field	Action	Description
NMI	Enter the NMI for which you want to create the DER record for.	Unique identifier for each connection point where DER installation has been installed/approved. NMIs are 10 characters long.
Connection Agreement Job Number	Enter the job number assigned to the DER installation.	Unique identifier associated with the NSP's connection offer/agreement for the approved DER works. <b>Note:</b> This number is used by Account-holders in combination with an NMI to access a DER Record in the DER Register.
Approved Capacity (kVA)	Enter the approved capacity for the generating unit.	Approved small generating unit capacity as agreed with NSP in the connection agreement, expressed in kVA

Field	Action	Description
Number of Phases available	Select the number of available phases from the dropdown.	The number of phases available for DER installation.
Number of Phases with DER connected	Select the number of phases with a DER connected device from the dropdown.	The number of phases that DER is connected to.
Islandable Installation	Select <b>Yes</b> or <b>No</b> from the drop down.	Identifies small generating units designed with the ability to operate in an island mode.
Central Protection and Control	Select <b>Yes</b> or <b>No</b> from the drop down. If you select <b>Yes</b> , a list of protection and control fields display (see below) Enter the protection and control modes details.	Describes the type(s) of central protection to be applied to the DER system. For DER installations where NSPs specify the need for additional forms of protection above those inbuilt in an inverter.
<b>Protection and Control modes</b> Complete these fields as required for the protection controls. <b>Note:</b> While the protection and control fields are optional, you will need to enter at least <b>one</b> of these fields before you can validate the connection agreement.		
Export Limitation (kVA)	Maximum amount of power (kVA) that may be exported from a connection point to the grid, as monitored by a control / relay function.	
Under Frequency Protection (F<)	Under frequency protection in Hz.	

Field	Action	Description
Over Frequency Protection (F>)		Over frequency protection in Hz.
Over Frequency Protection Delay (F>)		Over frequency protection delay in seconds.
Under Frequency Protection Delay (F<)		Under frequency protection delay in seconds.
Over Voltage Protection (V>)		Over frequency protection in Hz
Over Voltage Protection Delay (V>)		Over frequency protection delay in seconds.
Under Voltage Protection (V<)		Under voltage protection in volts (V)
Under Voltage Protection Delay (V<)		Under voltage protection delay in seconds
Sustained Over Voltage (V>>)		Sustained Over voltage protection in volts (V)
Sustained Over Voltage delay (V>>)		Sustained Over voltage protection delay in seconds



Field	Action	Description
Rate of Change of Frequency (RoCoF)		Rate of change of frequency trip point (Hz/s ).
Voltage Vector Shift		Trip angle (Deg)
Intertrip Scheme		Description of the form of inter-trip (e.g. "from local substation").

## Adding AC Connections and DER Devices

### Before you begin

Ensure that you have a DER record to associate the AC Connection and DER Device with.

#### To add AC Connection details:

1. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.
2. Click **+AC Connection**. The **Add New AC Connection** page displays.
3. Complete the following mandatory fields for the AC Connection.

Field	Description and Action
Equipment type	<p>Select from either Inverter or Other.</p> <p>Indicates whether the DER device is connected via an inverter (and what category of inverter it is) or not (e.g. rotating machine).</p>
Commissioning date	Select the date the AC Connection becomes <b>Active</b> .
Number of AC Connections	Type in the number of AC Connections in the group. For a suite of AC Connections to be considered as a group, all the AC Connections included must have the same attributes.
Status	<p>Select the status of the AC Connection. This will be used to identify if an AC Connection is active, inactive or decommissioned.</p> <p>This status also tracks commissioning and decommissioning date.</p> <p>When a new record is inserted in the database, the installation date/ start date is defined by the user and may be backdated.</p>
DRED interaction enabled	Select if the inverter is controlled remotely via the Demand Response Enabled Device function.
Manufacturer	<p>Select the name of the inverter manufacturer, from a list pre-populated with accredited manufacturers. If the manufacturer is not in the list, you can enter this information manually.</p> <p>When you select an accredited inverter manufacturer/model number, the form will auto-populate certain attributes from reference database.</p>
Model Number	<p>Select the model number of the inverter, from a list pre-populated with accredited model numbers. If the model number is not in the list, you can enter this information manually.</p> <p>When you select an accredited inverter manufacturer/model number, the form will auto-populate certain attributes from reference database.</p>
Series	Select from the list of accredited model numbers. If the series is not in the list, you can enter this information manually.
Other Inverter Series	Used to indicate if an inverter series is accredited.

Field	Description and Action
Serial Number	The number of AC Connections “count” shall determine how many serial numbers are required.
What standard applies to the inverter	What standard/s is the inverter manufactured, tested and installed to? Examples include AS4777.2:2015, IEC 62109-1 and -IEC 62019-2
Inverter rated capacity (kVA)	The rated AC output power that is listed in the product specified by the manufacturer.

**Note:** Depending on the manufacturer and model, you may need to complete additional non-mandatory information for the AC Connection.

- Click **Done** to save your changes. A new AC Connection is created with validation status as **Pending Validation**. The AC Connection will be validated when you validate the DER record.

#### To add DER Device details:

- Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.
- Click **+DER Device**. The **Add new DER Device** page displays.
- Complete the following fields for the DER Device.

Field	Description and Action
Device type	Indicates the primary technology used in the DER device. You can choose from: <ul style="list-style-type: none"> <li>• Fossil</li> <li>• Hydro</li> <li>• Wind</li> <li>• Solar PV</li> <li>• Biomass/Waste</li> <li>• Geothermal</li> <li>• Storage</li> <li>• Co- / Tri-generation</li> <li>• Other</li> </ul>
Device sub-type	Indicates the secondary technology used in the DER device.
Number of devices	Number of devices in the group of DER devices.
Status	Select the status of the DER Device. This will be used to identify if an AC Connection is active or inactive or decommissioned. <b>Note:</b> This status is only applicable to the DER Device. This is not a duplicate of the NMI level status, as devices may become active or inactive without a change of status to the overall system.
Manufacturer	Select the name of the device manufacturer, from a list pre-populated with accredited manufacturers. When you select an accredited device manufacturer/model number, the form will auto-populate certain attributes from reference database.
Model Number	Select the model number of the device, from a list pre-populated with accredited model numbers. When you select an accredited device manufacturer/model number, the form will auto-populate certain attributes from reference database.
Rated capacity (kW or kVA)	Maximum output in kVA that is listed in the product specification by the manufacturer.

**Note:** Depending on the manufacturer and model, you may need to complete additional non-mandatory information for the device.

4. Click **Done** to save your changes. A new DER Device is created, and displayed on the Connections and Devices page.

## Validating the DER Record

### Before you begin

Ensure that you have added a DER record with associated AC Connections and DER Devices.

#### To validate the DER record:

Click **Validate** to validate the DER record.

- If the submitted data fails a first level validation, an error message displays.



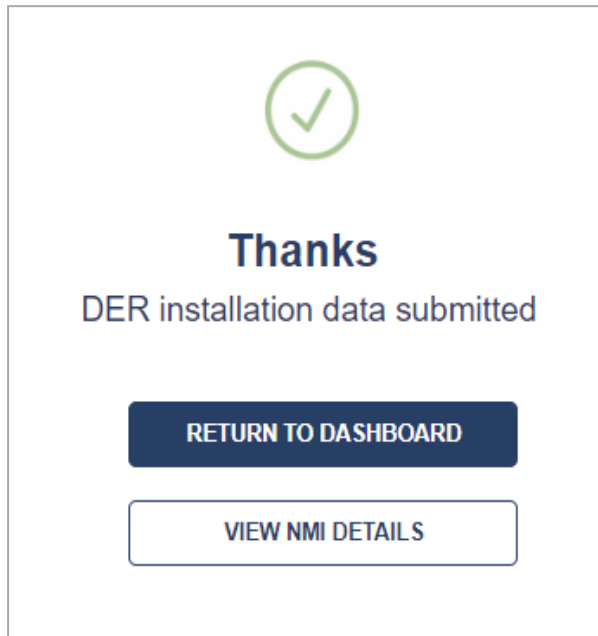
**Note:** You will need to fix the errors before you can proceed. The DERR Portal will not allow you to submit your DER record until you have completed the first level submission validations. For more information, refer to [Appendix: First Validation Pre-submission on page 73](#)

- If the submitted data fails a second level validation, a warning message displays, and the **Submit** button is activated. You can submit the DER record with a warning (the status will be set to **Initial/Conditional**).

**Note:** Before you can progress the DER record to **Confirm** status, you will need to update the record to fix any second level validation issues.

## Submitting the DER Record

Click **Submit** to submit the DER record. A success message is displayed, and the status of the DER record is set to **Initial**.



# Viewing Existing DER Records

Viewing and Using the DERR Dashboard .....	19
Searching DER records by NMI .....	21
Filtering DER Records .....	22
Viewing Individual NMI Details .....	24
Viewing DER Record Versions .....	25

## Viewing and Using the DERR Dashboard

NSPs can view a list of NMIs with DER records within their geographical area, using the DERR Portal.

**Note:** NSPs can only view a list of NMIs with DER records for which they are the LNSP. They cannot view any other NMIs.

### To view the Dashboard

From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays.

DER records by NMI

Search NMI

Show me

ALL

INITIAL

CONDITIONAL

CONFIRMED

Filters

7 Result(s)

NMI:4102835326

Approved Capacity30000 KVA

Amount	Type	Progress	Equipment Types
3	AC Connections	1 Initial 1 Conditional 1 Confirmed	[ "Inverter", "Other" ]
8	DER Devices	5 Initial 1 Conditional 2 Confirmed	[ "Solar PV", "Storage", "Geothermal" ]

NMI:4102713064

Approved Capacity60 KVA

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

NMI:2001008285

Approved Capacity7 KVA

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]



## What's on the dashboard

The dashboard displays the following information about the DER records

**DER records by NMI**

Search NMI

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

86 Result(s)

**NMI: BK00000050**

Amount	Type	Progress	Equipment Types
5	AC Connections	0 Initial 0 Conditional 5 Confirmed	[ "Inverter" ]
6	DER Devices	2 Initial 0 Conditional 4 Confirmed	[ "Storage", "Solar PV" ]

Approved Capacity 7000 KVA

**NMI: 4102835326**

Amount	Type	Progress	Equipment Types
1	AC Connections	0 Initial 0 Conditional 1 Confirmed	[ "Inverter" ]
1	DER Devices	0 Initial 0 Conditional 1 Confirmed	[ "Solar PV" ]

Approved Capacity 30000 KVA

No.	Description
1	Shows DER records filtered by DER Record Status
2	Filters for displaying DER records by parameters.
3	NMI for the DER record.
4	AC Connections and/or DER Devices associated with the NMI (DER Record).
5	Equipment Types related to the AC Connection or DER Device.
6	Search feature for searching specific DER record by NMI.

## Searching DER records by NMI

NSPs can search for specific NMIs using the Search functionality.

## To search DER records by NMI:

1. From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays.
2. In the Search box, enter the NMI you want to search DER records for. For example, 2001008285.
3. Press **Enter** to search. A list of DER records for the selected NMI displays.

**DER records by NMI**

2001008285

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

1 Result(s)

Filter Parameters:

- NMI = 2001008285

**NMI:2001008285**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

**Tip:** Click the row to view DER record, including AC Connections and DER Devices associated with the NMI.

## Filtering DER Records

NSPs can filter DER records by:

- Status (For more information, refer to [DER Record Status on page 8](#))
- Connection and Device parameters

## To filter DER records by status

1. From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays all current records in the DER register.

- From the top, next to **Show Me**, click the status to view DER records for. For example, Confirmed. All DER records matching the filter criteria display.

DER records by NMI

Search NMI

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

1 Result(s)

**Filter Parameters:**

- AC Installation stages in Confirmed
- Device Installation stages in Confirmed

**NMI:4102835326**

Approved Capacity 30000 KVA

Amount	Type	Progress	Equipment Types
2	AC Connections	0 Initial 0 Conditional 2 Confirmed	["Inverter", "Other"]
3	DER Devices	0 Initial 0 Conditional 3 Confirmed	["Solar PV", "Geothermal"]

### To filter DER records by connection and device parameters:

- From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays all current records in the DER register.
- From the top, click **Filters**. A list of fields display.

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

Commissioning Date Range

From

Clear Commissioning Date From

To

Clear Commissioning Date To

Modified Date Range

From

Clear Modified Date From

To

Clear Modified To

NMI

AC Equipment Type

☐ Inverter

☐ Other

Status

Installation stages

Idle

Initial

Conditional

Confirmed

Device Types

☐ Fossil

☐ Geothermal

☐ Hydro

☐ Storage

☐ Wind

☐ Renewable/Biomass/Waste

☐ Solar PV

☐ Other

Status

3. Enter the parameter you want to filter by, and click **Search**. All DER records matching the filter criteria display.

## Viewing Individual NMI Details

Using the DERR Portal, NSPs can drill down to view individual NMI details.

### To view individual NMI details

1. On the DERR Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays.
2. To view DER installation information for individual NMIs, click the row you want to view details for, for example, 2001008285. The selected NMI record displays.

## NMI: 2001008285

[DER Installation Details](#)
[Connections & Devices](#)
1

DER Installation

NMI (National Metering Identifier)\*

2001008285

Connection Agreement 'Job Number'\*

SO1101010101

Approved Capacity (KVA)\*

7

Number of phases with DER connected\*

1

Installer identification

test

Number of phases available\*

2

Islandable installation\*

No

EDIT DETAILS

\* Mandatory Fields

Requests

An Installer is requesting access to this record. Click the button below to give the Installer access to this record

Grant Access

Versions

Latest Version

31/10/2019 at 16:29

NMI Updated

31/10/2019 at 16:29

NMI Updated

31/10/2019 at 13:50

NMI Updated

31/10/2019 at 13:48

NMI Updated

31/10/2019 at 13:36

VALIDATE

UPDATE

## About the individual NMI page

Using the individual NMI page, you can:

- Edit/Update DER Record details (only if the updates do not alter the Connection Agreement parameters)
- View existing associated AC Connections, and DER Devices.
- View version history for the DER Record, and
- Grant record access to Installers.

## Viewing DER Record Versions

NSPs can track all submissions for a DER record, using the DERR Portal. Any edits to any attribute will result in a new version. Using the DERR Portal, NSPs can

- Retrieve a version history of a single DER Record
- Access a specific version of the DER record since submission

## Who can view DER record versions

All NSPs can view DER record versions for all the NMIs that are within their LNSP.

## To view DER Record versions

1. From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays.

DER records by NMI

Search NMI

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

NMI:4102713064

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

Approved Capacity 60 KVA

NMI:2001008285

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

NMI:BK00000004

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

Approved Capacity 20000 KVA

2. Scroll to view (or Search) and click the DER record you want to view version history for. The DER Record details page displays with a version history of the DER record.

## NMI: 2001008285

[DER Installation Details](#)
[Connections & Devices](#)
1

**DER Installation**
\* Mandatory Fields
[EDIT DETAILS](#)

**NMI (National Metering Identifier)\***

**Connection Agreement 'Job Number'\***

**Installer identification**

**Approved Capacity (KVA)\***

**Number of phases available\***

**Number of phases with DER connected\***

**Islandable installation\***

[VALIDATE](#)
[UPDATE](#)

**Requests**

An Installer is requesting access to this record. Click the button below to give the Installer access to this record

[Grant Access](#)

**Versions**

Latest Version  
31/10/2019 at 16:29

NMI Updated  
31/10/2019 at 16:29

NMI Updated  
31/10/2019 at 13:50

NMI Updated  
31/10/2019 at 13:48

NMI Updated  
31/10/2019 at 13:36

To access a specific version, click the associated **NMI Updated** link. The DER record valid as of that selected date and time is displayed.

# Managing DER Records

Resolving Exceptions .....	28
Editing an existing DER Record .....	32
Confirming a DER Record .....	34
Viewing DER Record Versions .....	36
Granting and Blocking Access .....	37
Granting Access to DER Record .....	38
Blocking Access to DER Record .....	40

## Resolving Exceptions

Using the DERR Portal, NSPs can resolve exceptions and re-submit DER record. They can also:

- View attributes associated with the exception code which failed Pre-Submission checks, and review these for accuracy.
- Edit these attributes and re-submit data.
- Acknowledge an exception related to AC Connection or DER Device

## Exception Types

### First level validations

You will need to fix/resolve any first level validations before you submit the DER record for the first time.



The DERR Portal will not allow you to submit your DER record until you have completed the first level submission validations. For more information, refer to [Appendix: First Validation Pre-submission on page 73](#)

### Second level validations

The DERR Portal displays all second level validations on the DER Installation details and Connections and Devices tabs.



1. From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays.

DER records by NMI

Search NMI

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

NMI:4102713064

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

Approved Capacity 69 KVA

NMI:2001008285

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

NMI:BK00000004

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

Approved Capacity 20000 KVA

2. Scroll to view (or Search) and click the DER record you want to resolve exceptions for. The DER Record details page displays the various exceptions on the DER installation details as well as Connections and Devices tabs.

Connections & Devices 3
+AC Connection
+DER Device

**AC Connection-1**
Validation status: Initial
Edit
Remove

ID: 200000004156323
Type: Inverter
Connection status:

- 2000-Update or Accept: Equipment (Manufacturer) not listed on third-party accredited product database.( Acknowledged : no)
- 2052-Review data: Model number not available for this manufacturer in third-party accredited product database.
- 2053-Inverter Series attribute must be aligned with the submitted Manufacturer and model number

**DER Device**
Validation status: Initial
Parent AC Connection 1
Edit
Remove

ID: 200000004190466
Type: Solar PV
Device status: Inactive

- 2004-Update or Accept: Equipment (Model) not listed on third-party accredited product database.( Acknowledged : no)

**DER Device**
Validation status: Initial
Parent AC Connection 1
Edit
Remove

ID: 200000004190465
Type: Solar PV
Device status: Inactive

- 2004-Update or Accept: Equipment (Model) not listed on third-party accredited product database.( Acknowledged : no)

- Click the AC Connection (or DER Device) you want to resolve exceptions for.

## Edit AC Connection

Equipment type\*

Inverter

Commissioning date

01 Aug 2020

Clear Commissioning Date

Number of AC Connections

2

Status

Please Select

DRED interaction enabled

Yes

Other Manufacturer

Victron Energy BV

Manufacturer

Other

- 2000-Update or Accept: Equipment (Manufacturer) not listed on third-party accredited product database.

Model Number

Other

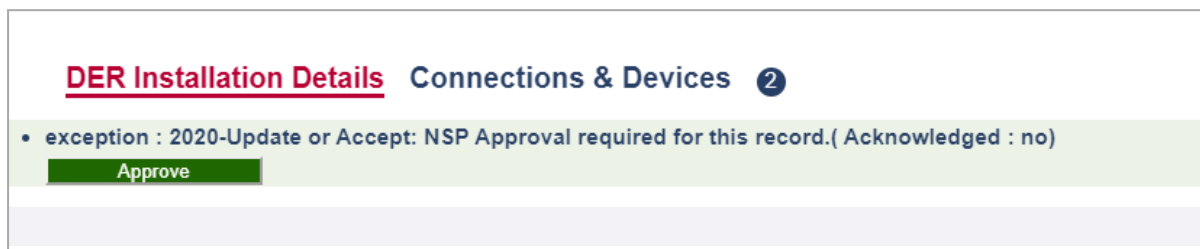
- 2052-Review data: Model number not available for this manufacturer in third-party accredited product database.

- Review and update the relevant fields and click **Done** to save your changes.
- Click the **DER Installation Details** tab.
- Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays and you will need to fix the error before you can proceed.
  - If the updated date is validated successfully, the **Update** button is activated.
- To save your changes, click **Update**.
 

**Note:** The DERR Portal will not allow you to update your DER record until you have fixed any first level validations.

## NSP Approvals

NSPs may have to approve exceptions for some DER installation details submitted by Account-holders. For example, minimum and maximum values for Approved Capacity.



The screenshot shows a web interface with two tabs: "DER Installation Details" (active) and "Connections & Devices" (with a notification bubble). Below the tabs, a green banner contains the text: "exception : 2020-Update or Accept: NSP Approval required for this record.( Acknowledged : no)". Below the banner is a green button labeled "Approve".

Click **Approve** to update or accept this exception.

For more information on setting Approval Controls, refer to [Adding and Removing Approval Controls on page 67](#)

When NSPs acknowledge an exception related to AC Connection or DER Device, the validation status will change from **Initial** to **Confirmed**, if there are no further exceptions.

## Editing an existing DER Record

NSPs can edit an existing DER record, provided it does not alter the connection agreement in any way. You cannot edit any existing DER installation details except Installer identification and Comments.

### Who can edit existing DER records

All NSPs can create a new DER record for their organisation.

#### To edit an existing DER record

1. From the Markets Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI

Search NMI

Show me **ALL** INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

**NMI:4102713064**

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

Approved Capacity 60 KVA

**NMI:2001008285**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

**NMI:BK00000004**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

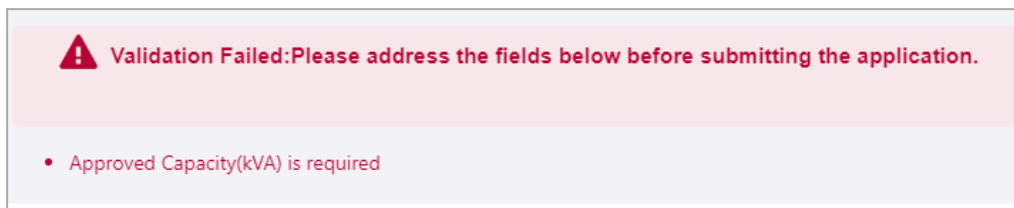
Approved Capacity 20000 KVA

2. Scroll to view (or Search) and click the DER record you want to edit. The DER Record details page displays.

3. Edit the DER record as required.

**Note:** You cannot edit DER installation details except Installer identification and Comments. You can use this page to add or edit AC Connections and DER Devices.

4. Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays.



**Note:** You will need to fix the errors before you can proceed. The DERR Portal will not allow you to submit your DER record until you have completed the first level submission validations. For more information, refer to [Appendix: First Validation Pre-submission on page 73](#)

- If the updated data fails a second level validation, a warning message displays, and the **Update** button is activated.
5. To save your changes, click **Update**. The DER record is updated with second level exceptions displayed for actioning, if any.

## Confirming a DER Record

NSPs can create a new DER record, by completing minimum required fields (mandatory information). In order to confirm the DER record for the DER Register, NSPs will need to complete all required fields and **fix all validation errors**.

### Who can confirm a new DER record

All NSPs can confirm the DER record.

**Note:** Account-holders can only confirm the DER record, if there are no approval controls set on the DER record. For more information, refer to [Adding and Removing Approval Controls on page 67](#)

### To confirm a new DER record

1. From the Markets Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI

Search NMI

Show me **ALL** INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

**NMI:4102713064**

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
60 KVA	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

**NMI:2001008285**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
7 KVA	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

**NMI:BK00000004**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
20000 KVA	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

2. Scroll to view (or Search) and click the DER record you want to confirm.  
**Tip:** You can use the Search filters to search for records by status. For more information, refer to [Filtering DER Records on page 22](#).  
 The DER Record details page displays.
3. Resolve all first and second level exceptions for the DER record. For more information, see [Resolving Exceptions on page 28](#)
4. Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays. You will need to fix the error before you can proceed.
  - If the updated date fails a second level validation, a warning message displays, and the **Update** button is activated. You will need to fix the error before you can proceed.
  - If the updated date is validated successfully, the **Update** button is activated.
5. To save your changes, click **Update**. The DERR record status changes from **Conditional** to **Confirmed**, provided there are no further exceptions.

## Viewing DER Record Versions

NSPs can track all submissions for a DER record, using the DERR Portal. Any edits to any attribute will result in a new version. Using the DERR Portal, NSPs can

- Retrieve a version history of a single DER Record
- Access a specific version of the DER record since submission

## Who can view DER record versions

All NSPs can view DER record versions for all the NMIs that are within their LNSP.

## To view DER Record versions

1. From the Markets Portal, navigate to **DERR > All DER Records**. The **DER Records by NMI** page displays.

**DER records by NMI** Search NMI

Show me **ALL** INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

NMI:4102713064	Amount	Type	Progress	Equipment Types
Approved Capacity 60 KVA	2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

NMI:2001008285	Amount	Type	Progress	Equipment Types
Approved Capacity 7 KVA	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

NMI:BK00000004	Amount	Type	Progress	Equipment Types
Approved Capacity 20000 KVA	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

2. Scroll to view (or Search) and click the DER record you want to view version history for. The DER Record details page displays with a version history of the



DER record.

NMI: 2001008285

DER Installation Details
Connections & Devices 1

DER Installation

Mandatory Fields
EDIT DETAILS

NMI (National Metering Identifier)\*

2001008285

Connection Agreement 'Job Number'\*

SO1101010101

Installer identification

test

Approved Capacity (KVA)\*

7

Number of phases available\*

2

Number of phases with DER connected\*

1

Islandable installation\*

No

VALIDATE
UPDATE

Requests

An Installer is requesting access to this record. Click the button below to give the Installer access to this record

Grant Access

Versions

Latest Version
31/10/2019 at 16:29

NMI Updated
31/10/2019 at 16:29

NMI Updated
31/10/2019 at 13:50

NMI Updated
31/10/2019 at 13:48

NMI Updated
31/10/2019 at 13:36

To access a specific version, click the associated **NMI Updated** link. The DER record valid as of that selected date and time is displayed.

## Granting and Blocking Access

NSPs can grant or block DER record access for Account-holders any time using the DERR Portal.

**Note:** The record is locked permanently after 365 days of submitting the job number. Account-holders will no longer be able to access request for the NMI and the Job Number.



## Granting Access to DER Record

When an Account-holder accesses a DER Record via the correct combination of an NMI and a job number and a receipt is generated for that job number, this access is blocked automatically.

Once a DER record is locked, Account-holders can request access to the record (accessing a DER Record using a job number is valid for 365 days from the date of submitting that job number for the first time).

NSPs can then grant access to the DER record for the Account-holder.

## Who can grant access to DER record

All NSPs can grant access to DER records for their organisation.

### To grant access to DER record

1. From the Markets Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI

Search NMI

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

NMI:4102713064

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

Approved Capacity 60 KVA

NMI:2001008285

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

NMI:BK00000004

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

Approved Capacity 20000 KVA

2. Scroll to view (or Search) and click the DER record you want to grant access to. The DER Record details page displays.

## NMI: BK000000050

[DER Installation Details](#) [Connections & Devices](#) 1

DER Installation

NMI (National Metering Identifier)\*

BK000000050

Connection Agreement 'Job Number'\*

JOBr12dsd

Approved Capacity (KVA)\*

30000

\* Mandatory Fields

EDIT DETAILS

Installer identification

nsp

Number of phases available\*

3

VALIDATE

UPDATE

Grant Access

### Versions

Latest Version

6/2/2020 at 15:33:32.000+10:00

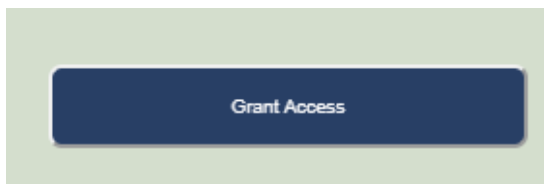
NMI Updated

6/2/2020 at 15:28:28.000+10:00

NMI Updated

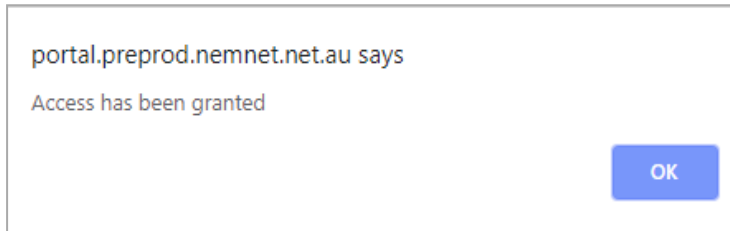
6/2/2020 at 15:27:49.000+10:00

- From the right, click **Grant Access**.



A confirmation message displays and:

- The DER record is now accessible for the Account-holder.
- The button text changes to Block Access.



## Blocking Access to DER Record

NSPs can block access to the DER record for the Account-holder.

### Who can block access to DER record

All NSPs can block access to DER records for their organisation.

#### To block access to DER record

- From the Markets Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI				
Show me <span>ALL</span> <span>INITIAL</span> <span>CONDITIONAL</span> <span>CONFIRMED</span>				Filters
7 Result(s)				
<b>NMI:4102713064</b>				
Approved Capacity 60 KVA	2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]
<b>NMI:2001008285</b>				
Approved Capacity 7 KVA	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]
<b>NMI:BK00000004</b>				
Approved Capacity 20000 KVA	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

2. Scroll to view (or Search) and click the DER record you want to block access to. The DER Record details page displays.

**NMI: BK000000050**

[DER Installation Details](#)
[Connections & Devices](#)

**DER Installation**
\* Mandatory Fields
[EDIT DETAILS](#)

**NMI (National Metering Identifier)\***

**Connection Agreement 'Job Number'\***

**Installer identification**

**Approved Capacity (KVA)\***

**Number of phases available\***

[VALIDATE](#)
[UPDATE](#)

[Block Access](#)

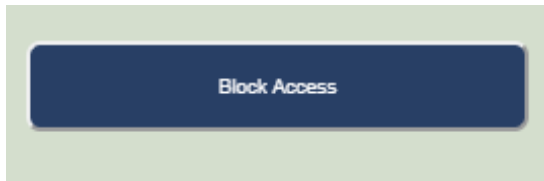
**Versions**

**Latest Version**  
6/2/2020 at 15:33:32.000+10:00

**NMI Updated**  
6/2/2020 at 15:28:28.000+10:00

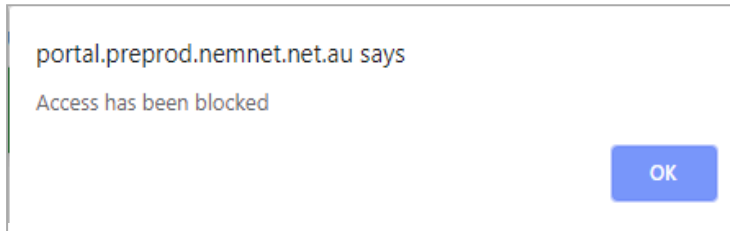
**NMI Updated**  
6/2/2020 at 15:27:49.000+10:00

3. From the right, click **Block Access**.



A confirmation message displays and:

- a. The DER record is now blocked for the Account-holder.
- b. The button text changes to Grant Access.



# Managing AC Connections and DER Devices

Using the DERR Portal, NSPs and Account-holders can:

- Add one or multiple new AC Connection(s) and/or DER Device(s).
- Link new DER devices to new or existing AC connections.
- Update AC Connection or DER Device status.
- Remove existing Idle or Initial AC connections or DER devices.

**Note:** You cannot remove existing **Confirmed** or **Conditional** DER records.

<b>Adding AC Connections</b> .....	<b>43</b>
<b>Editing Existing AC Connections</b> .....	<b>46</b>
<b>Adding DER Devices</b> .....	<b>50</b>
<b>Editing Existing DER Devices</b> .....	<b>52</b>
<b>Linking DER Device to an AC Connection</b> .....	<b>55</b>
<b>Decommissioning AC Connections and DER Devices</b> .....	<b>59</b>

## Adding AC Connections

Using the DERR Portal, NSPs and Account-holders can add one or multiple new AC Connections to existing DER records.

**Note:** Every AC Connection must have an associated DER Device.

## Who can add AC Connections and/or DER Devices

All NSPs can add AC Connections to DER records.

### Before you begin

- Ensure that you are authenticated and authorised to make changes to the DER record.

- You must create a new job number before you add AC connections and/or DER devices.

## To add a new AC Connection

From the DERR Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI

Search NMI

Show me

ALL

INITIAL

CONDITIONAL

CONFIRMED

Filters

7 Result(s)

NMI:4102713064

Approved Capacity60 KVA

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

NMI:2001008285

Approved Capacity7 KVA

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

NMI:BK00000004

Approved Capacity20000 KVA

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

Scroll to view (or Search) and click the DER record you want to add a new AC connection for. The DER Record details page displays.

- Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.
- Click **+AC Connection**. The **Add New AC Connection** page displays.
- Complete the following mandatory fields for the AC Connection.



Field	Description and Action
Equipment type	<p>Select from either Inverter or Other.</p> <p>Indicates whether the DER device is connected via an inverter (and what category of inverter it is) or not (e.g. rotating machine).</p>
Commissioning date	Select the date the AC Connection becomes <b>Active</b> .
Number of AC Connections	Type in the number of AC Connections in the group. For a suite of AC Connections to be considered as a group, all the AC Connections included must have the same attributes.
Status	<p>Select the status of the AC Connection. This will be used to identify if an AC Connection is active, inactive or decommissioned.</p> <p>This status also tracks commissioning and decommissioning date.</p> <p>When a new record is inserted in the database, the installation date/ start date is defined by the user and may be backdated.</p>
DRED interaction enabled	Select if the inverter is controlled remotely via the Demand Response Enabled Device function.
Manufacturer	<p>Select the name of the inverter manufacturer, from a list pre-populated with accredited manufacturers. If the manufacturer is not in the list, you can enter this information manually.</p> <p>When you select an accredited inverter manufacturer/model number, the form will auto-populate certain attributes from reference database.</p>
Model Number	<p>Select the model number of the inverter, from a list pre-populated with accredited model numbers. If the model number is not in the list, you can enter this information manually.</p> <p>When you select an accredited inverter manufacturer/model number, the form will auto-populate certain attributes from reference database.</p>
Series	Select from the list of accredited model numbers. If the series is not in the list, you can enter this information manually.
Other Inverter Series	Used to indicate if an inverter series is accredited.

Field	Description and Action
Serial Number	The number of AC Connections “count” shall determine how many serial numbers are required.
What standard applies to the inverter	What standard/s is the inverter manufactured, tested and installed to? Examples include AS4777.2:2015, IEC 62109-1 and -IEC 62019-2
Inverter rated capacity (kVA)	The rated AC output power that is listed in the product specified by the manufacturer.

**Note:** Depending on the manufacturer and model, you may need to complete additional non-mandatory information for the AC Connection.

- Click **Done** to save your changes. A new AC Connection is created with validation status as **Pending Validation**. The AC Connection will be validated when you validate the DER record.

## Validate DER Record

After you have added a new (or editing existing) AC Connection or DER Device, you will need to validate the DER Record.

- Click the **DER Installation Details** tab.
- Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays and you will need to fix the error before you can proceed.
  - If the updated data fails a second level validation, a warning message displays, and the **Update** button is activated.
- To save your changes, click **Update**.
 

**Note:** The DERR Portal will not allow you to update your DER record until you have resolved any first level validations.

For more information on how to resolve exceptions, refer to [Resolving Exceptions on page 28](#).

## Editing Existing AC Connections

Using the DERR Portal, NSPs can edit existing AC Connections associated with DER records.

After editing existing AC Connection information, you will need to validate the entire DER record before submitting your updates for the DER Register.

## Who can edit AC Connections

All NSPs can edit AC Connections associated with DER records for their organisation.

### To edit an existing AC Connection

1. From the DERR Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

The screenshot shows the 'DER records by NMI' page. At the top, there is a search bar labeled 'Search NMI'. Below it, a 'Show me' filter section includes buttons for 'ALL', 'INITIAL', 'CONDITIONAL', and 'CONFIRMED', along with a 'Filters' button. The page indicates '7 Result(s)'. The results are displayed in three cards, each representing a different NMI:

NMI	Amount	Type	Progress	Equipment Types
NMI:4102713064	2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
Approved Capacity	60 KVA	6	DER Devices	6 Initial 0 Conditional 0 Confirmed
				[ "Solar PV" ]
NMI:2001008285	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
Approved Capacity	7 KVA	1	DER Devices	1 Initial 0 Conditional 0 Confirmed
				[ "Wind" ]
NMI:BK00000004	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
Approved Capacity	20000 KVA	1	DER Devices	1 Initial 0 Conditional 0 Confirmed
				[ "Storage" ]

2. Scroll to view (or Search) and click the DER record you want to edit AC connection information for. The DER Record details page displays.
3. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.

4. Click **Edit** to view the AC Connection you want to edit. The Edit AC Connection page displays.
5. Update the following mandatory fields for the AC Connection.

Field	Description and Action
Equipment type	Select from either Inverter or Other. Indicates whether the DER device is connected via an inverter (and what category of inverter it is) or not (e.g. rotating machine).
Commissioning date	Select the date the AC Connection becomes <b>Active</b> .
Number of AC Connections	Type in the number of AC Connections in the group. For a suite of AC Connections to be considered as a group, all the AC Connections included must have the same attributes.
Status	Select the status of the AC Connection. This will be used to identify if an AC Connection is active, inactive or decommissioned. This status also tracks commissioning and decommissioning date. When a new record is inserted in the database, the installation date/start date is defined by the user and may be backdated.
DRED interaction enabled	Select if the inverter is controlled remotely via the Demand Response Enabled Device function.
Manufacturer	Select the name of the inverter manufacturer, from a list pre-populated with accredited manufacturers. If the manufacturer is not in the list, you can enter this information manually. When you select an accredited inverter manufacturer/model number, the form will auto-populate certain attributes from reference database.
Model Number	Select the model number of the inverter, from a list pre-populated with accredited model numbers. If the model number is not in the list, you can enter this information manually. When you select an accredited inverter manufacturer/model number, the form will auto-populate certain attributes from reference database.
Series	Select from the list of accredited model numbers. If the series is not in the list, you can enter this information manually.

Field	Description and Action
Other Inverter Series	Used to indicate if an inverter series is accredited.
Serial Number	The number of AC Connections "count" shall determine how many serial numbers are required.
What standard applies to the inverter	What standard/s is the inverter manufactured, tested and installed to? Examples include AS4777.2:2015, IEC 62109-1 and -IEC 62019-2
Inverter rated capacity (kVA)	The rated AC output power that is listed in the product specified by the manufacturer.

**Note:** Depending on the manufacturer and model, you may need to complete additional non-mandatory information for the AC Connection.

6. Click **Done** to save your changes.

**Note:** You will need to **Validate DER Record below** before you update these changes in the DER Register.

## Validate DER Record

After you have edited existing AC Connection, you will need to validate the DER Record.

1. Click the **DER Installation Details** tab.
2. Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays and you will need to fix the error before you can proceed.
  - If the updated data fails a second level validation, a warning message displays, and the **Update** button is activated.
3. To save your changes, click **Update**.
 

**Note:** The DERR Portal will not allow you to update your DER record until you have resolved any first level validations.

For more information on how to resolve exceptions, refer to **Resolving Exceptions on page 28**.

## Adding DER Devices

Using the DERR Portal, NSPs can add one or multiple new DER Devices to existing DER Records.

### Who can add AC Connections and/or DER Devices

All NSPs can add DER Devices to a DER record.

### Before you begin

- Ensure that you are authenticated and authorised to make changes to the DER record.
- You must create a new job number before you add AC connections and/or DER devices.

### To add a new DER Device

From the DERR Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI				
Show me <span>ALL</span> <span>INITIAL</span> <span>CONDITIONAL</span> <span>CONFIRMED</span>				Filters
7 Result(s)				
NMI:4102713064	Amount	Type	Progress	Equipment Types
	2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]
Approved Capacity 60 KVA				
NMI:2001008285	Amount	Type	Progress	Equipment Types
	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]
Approved Capacity 7 KVA				
NMI:BK00000004	Amount	Type	Progress	Equipment Types
	1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
	1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]
Approved Capacity 20000 KVA				

Scroll to view (or Search) and click the NMI you want to add a new DER Device to. The NMI details page displays.

1. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.
2. Click **+DER Device**. The **Add new DER Device** page displays.
3. Complete the following fields for the DER Device.

Field	Description and Action
Device type	<p>Indicates the primary technology used in the DER device. You can choose from:</p> <ul style="list-style-type: none"> <li>• Fossil</li> <li>• Hydro</li> <li>• Wind</li> <li>• Solar PV</li> <li>• Biomass/Waste</li> <li>• Geothermal</li> <li>• Storage</li> <li>• Co- / Tri-generation</li> <li>• Other</li> </ul>
Device sub-type	Indicates the secondary technology used in the DER device.
Number of devices	Number of devices in the group of DER devices.
Status	<p>Select the status of the DER Device. This will be used to identify if an AC Connection is active or inactive or decommissioned.</p> <p><b>Note:</b> This status is only applicable to the DER Device. This is not a duplicate of the NMI level status, as devices may become active or inactive without a change of status to the overall system.</p>

Field	Description and Action
Manufacturer	Select the name of the device manufacturer, from a list pre-populated with accredited manufacturers. When you select an accredited device manufacturer/model number, the form will auto-populate certain attributes from reference database.
Model Number	Select the model number of the device, from a list pre-populated with accredited model numbers. When you select an accredited device manufacturer/model number, the form will auto-populate certain attributes from reference database.
Rated capacity (kW or kVA)	Maximum output in kVA that is listed in the product specification by the manufacturer.

**Note:** Depending on the manufacturer and model, you may need to complete additional non-mandatory information for the device.

- Click **Done** to save your changes. A new DER Device is created, and displayed on the Connections and Devices page.

## Validate DER Record

After you have added a new (or editing existing) AC Connection or DER Device, you will need to validate the DER Record.

- Click the **DER Installation Details** tab.
- Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays and you will need to fix the error before you can proceed.
  - If the updated data fails a second level validation, a warning message displays, and the **Update** button is activated.
- To save your changes, click **Update**.
 

**Note:** The DERR Portal will not allow you to update your DER record until you have resolved any first level validations.

## Editing Existing DER Devices

Using the DERR Portal, NSPs can edit existing DER Devices associated with AC Connections for a DER record.



After editing existing DER Device information, you will need to validate the entire DER record before submitting your updates for the DER Register.

## Who can edit DER Devices

All NSPs can edit DER Devices associated with AC Connections for DER records for their organisation.

### To edit an existing DER Device

1. From the DERR Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI			
<div> <div>Show me</div> <div>ALL</div> <div>INITIAL</div> <div>CONDITIONAL</div> <div>CONFIRMED</div> <div>Filters</div> </div>			
7 Result(s)			
<div> <div>NMI:4102713064</div> <div> <div>Amount</div> <div>Type</div> <div>Progress</div> <div>Equipment Types</div> </div> <div> <div>2</div> <div>AC Connections</div> <div>2 Initial 0 Conditional 0 Confirmed</div> <div>[ "Inverter" ]</div> </div> <div> <div>6</div> <div>DER Devices</div> <div>6 Initial 0 Conditional 0 Confirmed</div> <div>[ "Solar PV" ]</div> </div> </div>			
<div> <div>Approved Capacity</div> <div>60 KVA</div> </div>			
<div> <div>NMI:2001008285</div> <div> <div>Amount</div> <div>Type</div> <div>Progress</div> <div>Equipment Types</div> </div> <div> <div>1</div> <div>AC Connections</div> <div>1 Initial 0 Conditional 0 Confirmed</div> <div>[ "Inverter" ]</div> </div> <div> <div>1</div> <div>DER Devices</div> <div>1 Initial 0 Conditional 0 Confirmed</div> <div>[ "Wind" ]</div> </div> </div>			
<div> <div>Approved Capacity</div> <div>7 KVA</div> </div>			
<div> <div>NMI:BK00000004</div> <div> <div>Amount</div> <div>Type</div> <div>Progress</div> <div>Equipment Types</div> </div> <div> <div>1</div> <div>AC Connections</div> <div>1 Initial 0 Conditional 0 Confirmed</div> <div>[ "Inverter" ]</div> </div> <div> <div>1</div> <div>DER Devices</div> <div>1 Initial 0 Conditional 0 Confirmed</div> <div>[ "Storage" ]</div> </div> </div>			
<div> <div>Approved Capacity</div> <div>20000 KVA</div> </div>			

2. Scroll to view (or Search) and click the DER record you want to edit AC connection information for. The DER Record details page displays.
3. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.

4. Click **Edit** to view the DER Device you want to edit. The Edit DER Device page displays.
5. Update the following mandatory fields for the DER Device.

Field	Description and Action
Device type	<p>Indicates the primary technology used in the DER device. You can choose from:</p> <ul style="list-style-type: none"> <li>• Fossil</li> <li>• Hydro</li> <li>• Wind</li> <li>• Solar PV</li> <li>• Biomass/Waste</li> <li>• Geothermal</li> <li>• Storage</li> <li>• Co- / Tri-generation</li> <li>• Other</li> </ul>
Device sub-type	Indicates the secondary technology used in the DER device.
Number of devices	Number of devices in the group of DER devices.
Status	<p>Select the status of the DER Device. This will be used to identify if an AC Connection is active or inactive or decommissioned.</p> <p><b>Note:</b> This status is only applicable to the DER Device. This is not a duplicate of the NMI level status, as devices may become active or inactive without a change of status to the overall system.</p>
Manufacturer	<p>Select the name of the device manufacturer, from a list pre-populated with accredited manufacturers.</p> <p>When you select an accredited device manufacturer/model number, the form will auto-populate certain attributes from reference database.</p>
Model Number	<p>Select the model number of the device, from a list pre-populated with accredited model numbers.</p> <p>When you select an accredited device manufacturer/model number, the form will auto-populate certain attributes from reference database.</p>
Rated capacity (kW or kVA)	Maximum output in kVA that is listed in the product specification by the manufacturer.

**Note:** Depending on the manufacturer and model, you may need to complete additional non-mandatory information for the device.

6. Click **Done** to save your changes.

**Note:** You will need to **Validate DER Record below** before you update these changes in the DER Register.

## Validate DER Record

After you have edited existing DER Device , you will need to validate the DER Record.

1. Click the **DER Installation Details** tab.
2. Click **Validate** to validate your changes.
  - If the updated data fails a first level validation, an error message displays and you will need to fix the error before you can proceed.
  - If the updated data fails a second level validation, a warning message displays, and the **Update** button is activated.
3. To save your changes, click **Update**.
 

**Note:** The DERR Portal will not allow you to update your DER record until you have resolved any first level validations.

For more information on how to resolve exceptions, refer to [Resolving Exceptions on page 28](#).

## Linking DER Device to an AC Connection

Using the DER Register Portal, NSPs can link DER devices to existing AC Connections.

**All DER Devices must be linked to an AC Connection in the DER Register Portal. A device can only be linked to one AC Connection.**

### Before you begin

Ensure that you are authorised to update DER Devices information.

### To link a DER Device to an AC Connection

1. From the Markets Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

DER records by NMI

Search NMI

Show me **ALL** INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

**NMI:4102713064**

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

Approved Capacity 60 KVA

**NMI:2001008285**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

**NMI:BK00000004**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

Approved Capacity 20000 KVA

2. Scroll to view (or Search) and click the DER record you want to decommission an existing DER Device for. The DER Record details page displays.

3. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.

Connections & Devices 2

+AC Connection

+ DER Device

AC Connection-1

ID:200000003985410

Validation status:Confirmed

Type: Unknown\_equipment

Connection status: Active

Edit

DER Device

ID:200000005402997

Validation status:Confirmed

Type: Solar PV

Device status: Active

Parent AC Connection 1

Edit

DER Device

ID:200000004019509

Validation status:Confirmed

Type: Other

Device status: Active

Parent AC Connection 1

Edit

AC Connection-2

ID:200000005700873

Validation status:Confirmed

Type: Inverter

Connection status: Active

Edit

DER Device

ID:200000005744651

Validation status:Confirmed

Type: Storage

Device status: Active

Parent AC Connection 2

Edit

- For the DER Device you want to link, from the Parent dropdown, select the AC Connection you want to associate the device with. Ex, AC Connection 2.

**AC Connection-1**
☐ Validation status: Confirmed
 Edit
  
 ID: 200000003985410      Type: Unknown\_equipmnet      Connection status: Active

---

**DER Device**
☐ Validation status: Confirmed
 **Parent** AC Connection 1 
  
 ID: 200000005402997      Type: Solar PV      Device status: Active

---

**DER Device**
☐ Validation status: Confirmed
 **Parent**

AC Connection 1  
 AC Connection 1  
 AC Connection 2

  
 ID: 200000004019509      Type: Other      Device status: Active

The DER Device is now linked to AC Connection-2 and the Connections and Devices page is refreshed with these changes.

**AC Connection-2**
☐ Validation status: Confirmed
 Edit
  
 ID: 200000005700873      Type: Inverter      Connection status: Active

---

**DER Device**
☐ Validation status: Confirmed
 **Parent** AC Connection 2 
  
 ID: 200000005744651      Type: Storage      Device status: Active

---

**DER Device**
☐ Validation status: Confirmed
 **Parent** AC Connection 2 
  
 ID: 200000005744649      Type: Solar PV      Device status: Active

---

**DER Device**
☐ Validation status: Confirmed
 **Parent** AC Connection 2 
  
 ID: 200000005744648      Type: Storage      Device status: Active

---

**DER Device**
☐ Validation status: Confirmed
 **Parent** AC Connection 2 
  
 ID: 200000004019509      Type: Other      Device status: Active

## Decommissioning AC Connections and DER Devices

Using the DERR Portal, NSPs can decommission existing AC Connections and DER Devices.

### To decommission an existing AC Connection

1. From the DERR Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.

**DER records by NMI** Search NMI

Show me **ALL** INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

**NMI:4102713064**

Approved Capacity 60 KVA

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

**NMI:2001008285**

Approved Capacity 7 KVA

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

**NMI:BK00000004**

Approved Capacity 20000 KVA

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

2. Scroll to view (or Search) and click the DER record you want to decommission an existing AC connection for. The DER Record details page displays.
3. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.

- Click **Edit** to view the AC Connection you want to decommission. The Edit AC Connection page displays.

## Edit AC Connection

Equipment type\*  
Other

Commissioning date  
01 Aug 2019  
Clear Commissioning Date

Number of AC Connections  
998

Status  
Active  
Active  
Decommissioned

Voltage or reactive power regulation

- From the Status dropdown, select **Decommissioned**.
- Click **Done** to save your changes. The AC Connection status is now updated to Decommissioned.

**AC Connection-3**  
ID:200000002729677

○ Validation status: Pending Validation  
Type: Other

Connection status: Decommissioned

Edit Remove

### To decommission an existing DER Device

- From the DERR Portal, navigate to **DERR > All DER Records**. The DER Records by NMI page displays.



DER records by NMI

Search NMI

Show me ALL INITIAL CONDITIONAL CONFIRMED Filters

7 Result(s)

**NMI:4102713064**

Amount	Type	Progress	Equipment Types
2	AC Connections	2 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
6	DER Devices	6 Initial 0 Conditional 0 Confirmed	[ "Solar PV" ]

Approved Capacity 60 KVA

**NMI:2001008285**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Wind" ]

Approved Capacity 7 KVA

**NMI:BK00000004**

Amount	Type	Progress	Equipment Types
1	AC Connections	1 Initial 0 Conditional 0 Confirmed	[ "Inverter" ]
1	DER Devices	1 Initial 0 Conditional 0 Confirmed	[ "Storage" ]

Approved Capacity 20000 KVA

2. Scroll to view (or Search) and click the DER record you want to decommission an existing DER Device for. The DER Record details page displays.
3. Click **Connections & Devices** tab. This tab displays all the AC Connections and DER Devices associated with the NMI.

- Click Edit to view the DER Device you want to decommission. The Edit DER Device page displays.

## Edit DER Device

<b>Device type*</b>	<b>Device sub-type</b>
Geothermal	Other
<b>Specify sub-type</b>	<b>Number of devices</b>
Other 1	499
<b>Status</b>	<b>Manufacturer</b>
Active	Other
Active	
Decommissioned	

- From the Status dropdown, select **Decommissioned**.
- Click **Done** to save your changes. The DER Device status is now updated to Decommissioned.

<b>DER Device</b>	<input type="radio"/> Validation status: Confirmed	<b>Parent</b> AC Connection 3	<b>Edit</b>
ID: 200000002751503	Type: Geothermal	Device status: Decommissioned	

# Downloading Receipts

Once a DER device has been installed and recorded in the DERR, NSPs can view and download a receipt for the installation. The receipt provides a summary of the installation and confirmation that the job is complete.

This topic describes how to view and download the receipt.

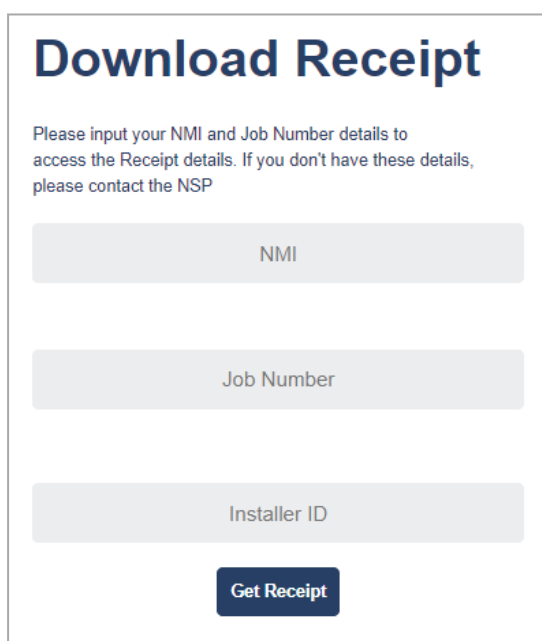
## Before you begin

Ensure that:

- The installation job has been completed,
- The job has been recorded in the DERR Portal, and
- You have a valid NMI, Job Number and Installer ID to access the receipt.

## To download the receipt


1. From the Markets Portal, navigate to **DERR > Confirmation Receipts**. The Download Receipt page displays.



The screenshot shows a web form titled "Download Receipt" in a large, bold, dark blue font. Below the title, there is a line of instructional text: "Please input your NMI and Job Number details to access the Receipt details. If you don't have these details, please contact the NSP". The form contains three input fields, each with a light gray border and a light gray background. The first field is labeled "NMI", the second "Job Number", and the third "Installer ID". Below these fields is a dark blue button with the text "Get Receipt" in white.

2. On the Download Receipt page, enter the NMI, Job Number and Installer ID.  
**Note:** All these fields are mandatory. You cannot download the receipt if you do not enter all these details.

3. Click **Get Receipt**. A PDF version of the Receipt is downloaded.



*[Confirmation Date]*

### Automated Record Confirmation for a Distributed Energy Resource

This is to confirm that AEMO's records show that a small generating system, battery system or other distributed energy resource has been installed and is now operational, with the details below.

Installer identification: *[InstallerID]*      Date record confirmed: *[Job Complete Date]*

Installation overview

The total approved distributed energy resource capacity for this site is *[approved capacity]* kVA, and the capacity of the installed system at his site is *[total AC connection capacity]* kVA.

Network Service Provider: *[NSP name]*      Job Number: *[JobNumber]*

National Metering Identifier (NMI): *[NMI]*      Export limit: *[if applicable then export\_limit, if not applicable then text: No limit]*

Installed system details

Identifier	Type	No.	Capacity (kVA)	Total Capacity (kVA)	Manufacturer	Model Number
<i>[AC connection ID]</i>	<i>[AC equipment type]</i>	<i>[number of AC connections]</i>	<i>[inverter capacity]</i>	<i>[Total capacity]</i>	<i>[manufacturer name]</i>	<i>[Model number]</i>
<i>[AC connection ID]</i>	<i>[AC equipment type]</i>	<i>[number of AC connections]</i>	<i>[inverter capacity]</i>	<i>[Total capacity]</i>	<i>[manufacturer name]</i>	<i>[Model number]</i>
Fill rows as needed...						

System source details

Identifier	Type	No.	Source Capacity (kW)	Storage Capacity (kWh)	Manufacturer	Model Number
<i>[Device ID]</i>	<i>[Device type]</i>	<i>[number of devices]</i>	<i>[Total device capacity]</i>	<i>[if battery, then kWh, if not then text: No storage]</i>	<i>[Device Manufacturer name]</i>	<i>[Device Model number]</i>
<i>[Device ID]</i>	<i>[Device type]</i>	<i>[number of devices]</i>	<i>[Total device capacity]</i>	<i>[if battery, then kWh, if not then text: No storage]</i>	<i>[Device Manufacturer name]</i>	<i>[Device Model number]</i>

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NEW SOUTH WALES    QUEENSLAND    SOUTH AUSTRALIA    VICTORIA    AUSTRALIAN CAPITAL TERRITORY    TASMANIA    WESTERN AUSTRALIA

## What's on the Receipt

The confirmation Receipt contains the following information.

Section	Description
Confirmation Date	Date when the installation was confirmed
Installer Details	Provides installer id details
Date record confirmed	Date when the job was completed
Installation Overview	Provides NSP details including: <ul style="list-style-type: none"> <li>a. NSP name</li> <li>b. Job Number</li> <li>c. NMI</li> <li>d. Export limit</li> </ul>
Installed system details	Provides a list of installed AC connection details, including: <ul style="list-style-type: none"> <li>a. Identifier</li> <li>b. Type</li> <li>c. No of AC connections</li> <li>d. Capacity (kVA)</li> <li>e. Total Capacity (kVA)</li> <li>f. Manufacturer</li> <li>g. Model Number</li> </ul>
System source details	Provides a list of installed DER Device details, including: <ul style="list-style-type: none"> <li>a. Identifier</li> <li>b. Type</li> <li>c. No of devices</li> <li>d. Source Capacity (kW)</li> <li>e. Storage Capacity (kWh)</li> <li>f. Manufacturer</li> <li>g. Model Number</li> </ul>

# Managing DER Admin

The DER Admin page allows you to manage:

- Connection Manager contact details
- NSP approval controls (for device capacity)
- Inverter Default Capacity settings

## Connection Manager Contact Details

NSPs manage their contact details (Role, Email and Contact number) using the DERR Portal. Account-holders use these details to contact the NSP in case of data inquiries.

This topic describes how to set up the connection manager contact details. Account-holders can view the NSP contact details when they access a DER Record.

### To set up contact details

1. From the Markets Portal, navigate to **DERR > Admin**.
2. On the Admin page, click **Contact Details** tab. The **Connection Manager Contact Details** displays.

The screenshot shows the 'Contact Details' tab selected in the DERR Admin portal. The page title is 'Connection Manager Contact Details'. Below the title, a message states: 'The following details will be displayed for users to contact the NSP connection manager for queries.' There are three input fields: 'Title / Role', 'Phone Number', and 'Email'. Each field has a placeholder text matching its label. A 'Save Changes' button is located at the bottom right of the form.

3. Enter the Title/Role, Phone Number and Email for the connection manager and click **Save Changes** to save these details.

**Note:** You can only record one connection manager details at a time.

## Adding and Removing Approval Controls

NSPs can approve data submitted by account holders to DER register, to verify the data submitted is correct and is aligned to DER Register data quality.

This topic describes how to set approval control for the generating unit's approved capacity values.

### Before you begin

- NSPs can set minimum and maximum values for Approved Capacity (inclusive)
- NSPs can set multiple ranges of Approved Capacity.
- NSPs cannot set overlapping ranges of “Approved Capacity”. For example, if you set a range of Approved Capacity between 0 and 50 kVA, then you cannot set another range that has any value falling between 0 and 50 (both inclusive).
- NSPs are notified to approve DER Records submitted by account holders based on Approved Capacity, even if they have passed all validations.

### To add a new approval control

1. From the Markets Portal, navigate to **DERR > Admin**.
2. On the Admin page, click **Approval Controls** tab. The **Approval Controls** page displays.

Contact Details **Approval Controls** Inverter Default Settings

### Approval Controls

The following ranges can be used to select whether NSP review and confirmation is required for every record in the range, even where no exceptions are raised. Note that for unspecified ranges or where 'Approval Required' is not selected records will automatically confirm if there are no exceptions.

Approved Capacity Higher than:  kVA ☒ Approval Required

**Add** **Remove** **Save Changes**

3. To add a new approval control, click **Add**. A new row displays.

**Approval Controls**

The following ranges can be used to select whether NSP review and confirmation is required for every record in the range, even where no exceptions are raised. Note that for unspecified ranges or where 'Approval Required' is not selected records will automatically confirm if there are no exceptions.

**Add**

Approved Capacity Higher than: 10 kVA ☒ Approval Required **Remove**

Approved Capacity Range: kVA To kVA ☐ Approval Required **Remove**

**Save Changes**

4. From the Approved Capacity Range drop down, select either Approved Capacity Lower Than or Approved Capacity Higher Than.

Approved Capacity Range: ▼

Approved Capacity Range:

Approved Capacity Lower than:

Approved Capacity Higher than:

5. Enter the approval value (minimum and maximum values for a range, if applicable).
6. To set an approval control, tick the **Approval Required** box.

Approved Capacity Range: 10 kVA To 20 kVA ☐ Approval Required **Remove**

7. Click **Save Changes**. A new approval control is now set on the generating unit's approved capacity value.



## To remove an approval control

1. From the Markets Portal, navigate to **DERR > Admin**.
2. On the Admin page, click **Approval Controls** tab. The **Approval Controls** page displays.

3. For the approval control you want to remove, click **Remove**. The approval control is removed.
4. Click **Save Changes** to save your changes.

## Adding and Removing Inverter Default Settings

NSPs can use the DERR Portal to set Inverter Settings. These settings are used for auto populating the default inverter data for Connection Agreement, AC connections, and DER Job Access.

This topic describes how to add and remove inverter default settings.

### Before you begin

- NSPs can set minimum and maximum values for Inverter Device Capacity (inclusive)
- NSPs can set multiple ranges of Inverter Device Capacity.
- NSPs cannot set overlapping ranges of Inverter Device Capacity. For example, if you set a range of Inverter Device Capacity between 0 and 50, you cannot set another range that has any value falling between 0 and 50 (both inclusive).

### To add a new inverter default setting

1. From the Markets Portal, navigate to **DERR > Admin**.
2. On the Admin page, click **Inverter Default Settings** tab.

The screenshot shows the 'Inverter Default Settings' page with tabs for 'Contact Details', 'Approval Controls', and 'Inverter Default Settings' (which is selected and underlined in red). Below the tabs, the page title 'Inverter Default Settings' is displayed. A subtitle reads 'Set default data for pre-population of standard settings'. On the right side, there is a dark blue 'ADD' button. Below this, there is a form with a dropdown menu labeled 'Inverter Device Capacity Higher than:', a text input field containing the number '5', and a unit label 'kVA'. To the right of the input field are 'Remove' and 'View' buttons. At the bottom right, there is a dark blue 'Save Changes' button.

3. To add a new inverter setting, click **Add**. A new row displays.

This screenshot shows the same 'Inverter Default Settings' page as before, but with an additional row added. The 'ADD' button is now highlighted with a red rectangle. The new row, also highlighted with a red rectangle, contains a dropdown menu labeled 'Inverter Device Capacity Range:', two empty text input fields, and unit labels 'kVA To' and 'kVA'. To the right of the input fields are 'Remove' and 'View' buttons. The 'Save Changes' button remains at the bottom right.

4. From the Inverter Device Capacity Range drop down, select either Inverter Device Capacity Lower Than or Inverter Device Capacity Higher Than.

The screenshot shows a close-up of the 'Inverter Device Capacity Range:' dropdown menu. The menu is open, showing three options: 'Inverter Device Capacity Range:' (which is highlighted in blue), 'Inverter Device Capacity Lower than:', and 'Inverter Device Capacity Higher than:'.

5. Enter the approval value (minimum and maximum values for a range, if applicable).
6. Click **Save Changes** to save your changes.

### To remove an inverter default setting

1. From the Markets Portal, navigate to **DERR > Admin**.
2. On the Admin page, click **Inverter Default Settings** tab. The **Inverter Default Settings** page displays.

3. For the inverter setting you want to remove, click **Remove**.

The screenshot shows a web interface with three tabs: 'Contact Details', 'Approval Controls', and 'Inverter Default Settings' (which is selected and underlined in red). Below the tabs is a section titled 'Inverter Default Settings' with the subtitle 'Set default data for pre-population of standard settings'. On the right side of this section is a dark blue 'ADD' button. The main area contains three rows of settings, each with a dropdown menu, a text input, and a label. The first row is 'Inverter Device Capacity Range:' with inputs '5' and '10' and label 'kVA To kVA'. The second row is 'Inverter Device Capacity Lower than:' with input '6' and label 'kVA'. The third row is 'Inverter Device Capacity Range:' with inputs '1' and '2' and label 'kVA To kVA'. To the right of each row are 'Remove' and 'View' buttons. The 'Remove' button for the second row is highlighted with a red rectangular box. At the bottom right of the section is a dark blue 'Save Changes' button.

Setting	Value 1	Value 2	Unit/Label	Remove	View
Inverter Device Capacity Range:	5	10	kVA To kVA	Remove	View
Inverter Device Capacity Lower than:	6		kVA	Remove	View
Inverter Device Capacity Range:	1	2	kVA To kVA	Remove	View

The inverter default setting is removed.

4. Click **Save Changes** to save your changes.



# Appendix: First Validation Pre-submission

Exception Code	Exception message	Business Rules	Applies to
1000	Invalid submission: Job number already in use.	Job number must be unique for an NMI and for the NSP that sent it. Job number must not have been submitted before for a different NMI by the same NSP.	NSP
1010	Invalid submission: NMI does not exist in MSATS	NMI must exist in MSATS	NSP
1011	Invalid submission: NMI is Extinct and cannot be used	NMI must not be extinct	NSP
1012	Invalid submission: NMI not aligned to NSP NMI allocation	NSP currently holds the LNSP role for this NMI.	NSP
1020	Invalid submission: Incorrect format	Content must be in the correct format	Account-holder and NSP
1021	Invalid submission: Mandatory field not provided	All mandatory fields are completed	Account-holder and NSP
1030	Invalid submission: DER installation information missing. Please link an AC Connection to this NMI	NMI must have at least one AC Connection linked to it.	Account-holder and NSP

Exception Code	Exception message	Business Rules	Applies to
1031	Invalid submission: DER installation information missing. Please link a Device to this AC Connection	Each AC Connection with status of null, Active or Inactive must have at least one Device linked to it	Account-holder and NSP
1032	Invalid submission: DER installation information missing. Please link this Device to an AC Connection	Each Device with status of null, Active or Inactive must have an AC Connection linked to it	Account-holder and NSP
1040	Invalid submission: DER Record mismatch to AEMO data	If there is an existing Confirmed AC Connection or DER Device and status = Active, it must be included in every submission, i.e. Confirmed AC Connections or DER Devices cannot be removed If Confirmed DER Record is decommissioned, status changes to "Decommissioned" and must be submitted.	Account-holder and NSP
1041	Invalid submission: DER Record mismatch to AEMO data	If there is an existing Confirmed AC Connection or DER Device and status = Active, it must be included in every submission, i.e. Conditional DER Records cannot be removed If Conditional DER Record is decommissioned, status changes to Decommissioned and must be submitted	Account-holder and NSP
1050	Invalid submission: Invalid AC Connection identifier	AC Connection ID must be null or generated previously by AEMO.	Account-holder and NSP
1051	Invalid submission: Invalid Device identifier	DER Device ID must be null or generated previously by AEMO.	Account-holder and NSP
1060	Invalid submission: DER installation not yet commissioned	AC Connection status must be null or Inactive if commissioning date is null or in the future	Account-holder and NSP

Exception Code	Exception message	Business Rules	Applies to
1061	Invalid submission: DER installation already commissioned. Status must be active or decommissioned	AC Connection status must be Active or Decommissioned if commissioning date is in the present or in the past	Account-holder and NSP
1062	Invalid submission: Device status not aligned to linked AC Connection	Device Status must be null or Inactive if the AC Connection linked to it has status of null or Inactive.	Account-holder and NSP
1063	Invalid submission: Device status not aligned to linked AC Connection.	Device Status must be Decommissioned if the AC Connection linked to it has status of Decommissioned	Account-holder and NSP
1064	Invalid submission: AC Connection status invalid	AC Connection status cannot be Inactive if it was previously Active or Decommissioned	Account-holder and NSP
1065	Invalid submission: AC Connection status invalid	DER Device status must NOT be Inactive if it was previously Active or Decommissioned	Account-holder and NSP
1070	Invalid submission: Value not approved by NSP	Number values must be within the permitted range. These ranges are specified in the tables in Section 7.	Account-holder and NSP
1080	Invalid submission: Device type invalid for AC Connection type	Device Type must be Solar, Storage, or Wind if the AC Connection linked to it = Inverter	Account-holder and NSP
1081	Invalid submission: Device type invalid for AC Connection type	Device Type must be NOT Solar, Storage, or Wind if the AC Connection linked to it = Other	Account-holder and NSP
1090	Invalid submission: Missing information	The count of submitted Serial numbers for an AC Connection must equal the number of AC Connections	Account-holder and NSP

Exception Code	Exception message	Business Rules	Applies to
1110	Invalid submission: Not enough Devices in DER Record	<p>Each ACTIVE AC Connection must have "number of AC Connection" equal to or less than total of Total of "number of DER Devices" that are linked to it, i.e.</p> $\text{number of AC Connections} \leq \text{SUM} \{ \text{number of Devices 1} + \text{number of Devices 2} \dots + \text{number of Devices n} \}$ <p>Where n is the number of Devices or group of DER Devices connected to that AC Connection</p> <p>This validation is only applicable if AC Equipment Type = Inverter</p>	Account-holder and NSP
1111	Invalid submission: Number of Devices and AC Connections must match	If AC Equipment Type = Other, then "number of AC Connection" must equal to "number of DER Devices" linked to it	Account-holder and NSP
1120	Invalid submission: Missing information. At least one field must be completed	One of Protection and Control Modes attributes must be submitted	Account-holder and NSP
1121	Invalid submission: Cannot enable reactive power AND voltage response modes	Reactive power mode MUST be "Not Enabled" if any of Voltage response modes are Enabled	Account-holder and NSP
1122	Invalid submission: Cannot enable fixed power factor AND voltage response modes	Fixed power factor mode MUST be "Not Enabled" if any of Voltage response modes are Enabled	Account-holder and NSP
1123	Invalid submission: Cannot enable variable power factor AND voltage response modes	Power factor curve / power response mode MUST be "Not Enabled" if any of Voltage response modes are Enabled	Account-holder and NSP
1130	Invalid submission: Export limit exceeds approved capacity	If export limit is specified, it must be equal or smaller than approved capacity	Account-holder and NSP



Exception Code	Exception message	Business Rules	Applies to
1140	Invalid submission: Value is percentage, maximum is 100%	If "Voltage set point unit" is %, then "Voltage set point" must NOT be more than 100	Account-holder and NSP
1160	Invalid submission: Equipment type not approved by NSP	Inverter default settings ranges must NOT overlap	NSP
1161	Invalid submission: Default standards capacity ranges already in use	Inverter default NSP approval ranges must NOT overlap	NSP
1170	Invalid submission: NSP-approved information has been edited	Account holders must NOT edit "Non-Editable" fields at any point. Refer to DER Job Access for non-editable fields for account holders	Account-holder
1171	Invalid submission: NSP-approved information has been edited	Account holders must NOT edit commissioning dates for AC Connections that were created with previous job numbers	Account-holder

# Appendix: Second Validation Pre-submission

Exception Code	Exception Message	Business Rules	Applies to	Comments
2000	Update or Accept: Equipment (Manufacturer) not listed on third-party accredited product database	Manufacturer must be accredited	Account-holder and NSP	<p>Exceptions generated by any of these business rules can be acknowledged by NSPs.</p> <p>Acknowledging these exceptions will change the "installationStage" the AC Connection or DER Device related to it to become "Confirmed".</p> <p>Refer to "DER Process Update".</p>
2001	Update or Accept: Equipment (Model) not listed on third-party accredited product database	Inverter Model number must be accredited	Account-holder and NSP	
2002	Update or Accept: Equipment (Series) not listed on third-party accredited product database	Inverter Series must be accredited	Account-holder and NSP	

Exception Code	Exception Message	Business Rules	Applies to	Comments
2003	Update or Accept: Equipment (Manufacturer) not listed on third-party accredited product database	Device Manufacturer must be accredited	Account-holder and NSP	
2004	Update or Accept: Equipment (Model) not listed on third-party accredited product database	Device Model number must be accredited	Account-holder and NSP	
2010	Update or Accept: Equipment listing on third-party accredited product database not current at time of commissioning.	Accredited inverter commissioning date must be within the accredited approved period	Account-holder and NSP	
2011	Update or Accept: Equipment listing on third-party accredited product database not current at time of commissioning	Accredited device commissioning date must be within the accredited approved period	Account-holder and NSP	

Exception Code	Exception Message	Business Rules	Applies to	Comments
2020	Update or Accept: NSP Approval required for this record	NSP must be notified if the Approved Capacity for an NMI is in the range that this NSP specified to approve for	Account-holder	
2021	Update or Accept: Default data input has been edited. Accept when ready to proceed	Account-holders must not edit pre-populated AC Connection attributes that were submitted by NSP	Account-holder	
2022	Update or Accept: Default data input has been edited	Account-holders must not edit pre-populated DER Devices attributes that were submitted by NSP	Account-holder	
2023	Review data: Data not provided	NSP must be notified if optional fields are not submitted by Account-holders.	NSP and Account-holder	NSP cannot acknowledge this exception.
2030	Review data: Inverter capability does not provide required control mode	Inverter must have the capabilities to support the inverter settings data, i.e. if user has entered inverter settings data for inverter capabilities, but the inverter entered does not have the capabilities that support it, the system will raise an exception.	Account-holder and NSP	NSP cannot acknowledge this exception. Exception will be resolved if the selected mode that resulted exception becomes "Not Enabled"

Exception Code	Exception Message	Business Rules	Applies to	Comments
2040	Review data: Installed capacity greater than approved capacity	If no export limit is specified, approved capacity must be equal or bigger than AC Connection installed Capacity	Account-holder and NSP	AC Connection Installed capacity is a calculated value. It represents what is the total capacity physically installed at site. Exceptions generated due to this validation rule cannot be acknowledged. All AC Connections and DER Devices that were newly added will be "Conditional". Refer to "DER Process Update"
2050	Review data: Equipment capacity not aligned to third-party accredited product database for this model	For accredited inverters, "Inverter device capacity" must be aligned with the submitted model number. Reference data shall be used for validating this alignment.	Account-holder and NSP	These exceptions cannot be acknowledged.
2051	Review data: Standards entered not aligned to third-party accredited product database for this model	For accredited inverters, "What standard applies to the inverter" attribute must be aligned with the submitted model number. Reference data shall be used for validating this alignment.	Account-holder and NSP	

Exception Code	Exception Message	Business Rules	Applies to	Comments
2052	Review data: Model number not available for this manufacturer in third-party accredited product database	For accredited inverters, "Model Number" attribute must be aligned with the submitted Manufacturer Reference data shall be used for validating this alignment.	Account-holder and NSP	
2053	Review data: Inverter series not available for this manufacturer and model in third-party accredited product database	For accredited inverters, "Inverter Series" attribute must be aligned with the submitted Manufacturer and model number Reference data shall be used for validating this alignment.	Account-holder and NSP	
2060	Review data: Equipment capacity not aligned to third-party accredited product database for this model	For accredited batteries (storage), "Nominal rated capacity" must be aligned with the submitted model number. Reference data shall be used for validating this alignment.	Account-holder and NSP	

Exception Code	Exception Message	Business Rules	Applies to	Comments
2061	Review data: Equipment capacity not aligned to third-party accredited product database for this model	For accredited batteries (storage), "Nominal storage capacity" must be aligned with the submitted model number. Reference data shall be used for validating this alignment.	Account-holder and NSP	
2062	Review data: Model number not available for this manufacturer in third-party accredited product database	For accredited batteries (Storage) or Solar PVs , "Model Number" must be aligned with the Reference data shall be used for validating this alignment submitted Manufacture.	Account-holder and NSP	