How to enter distributed generation data in the registry

User guide

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ELECTRICITY AUTHORITY
TE MANA HIKO

Version control

Version	Date	Comments
1.0	1 December 2023	Initial publication
2.0	1 August 2025	Version 2.0 published to support updates to registry coming into force from 1 August 2025.

Purpose

1.1 This guide provides guidance to participants on how to enter distributed generation (DG) capacity data into the electricity registry (registry).

Scope and definitions

1.2 To correctly enter DG capacity data in the registry, participants must consider the definitions in Part 1 of the Electricity Industry Participation Code 2010 (Code). In particular, the definitions of *generating plant*, *generating unit*, *maximum export power*, and *nameplate capacity*.

1.3 A series of individual small generating devices each with a micro inverter that shares one connection can be grouped and treated as one generating unit and one inverter. For example, 20 0.5kW solar panels, each with a micro inverter, with the AC output of the micro inverters wired in parallel and connected to the main switchboard with a single connection, can be treated as one 10kW solar array with one inverter. The maximum discharge (export) rate of the inverter should be the sum of the maximum discharge rates of each micro inverter.

1.4 There are four 'capacity' fields in the registry that must be completed for DG:

(a) Maximum permitted generation capacity – This field is at the ICP level. This is the maximum export limit (if any) in kW imposed by the distributor at the ICP. This limit can be set by the distributor even if there is no generation at the ICP and applies to any future application for generation. See process DC-010 in the registry functional specification

(b) Maximum deliverable generation capacity – This field is at DG event level 1 (summary information). This is the maximum amount of electricity (in kW) that can be exported from the ICP into the network. It will be the export limit set in the inverter or sum of the limits if there are multiple inverters. If there are multiple inverters that are interconnected and have a master control that limits the total export, then it will be the master control limit.

(c) Maximum nameplate capacity – This field is at the DG detail level. It is the nameplate capacity of the generator and may be different from the Maximum Deliverable Generation Capacity.

(d) Maximum discharge (export) rate – This field is at the DG inverter and DG Battery level. This is the maximum export rate the device (inverter or battery) can deliver. It may be higher than the Maximum Deliverable Generation Capacity if the Maximum Deliverable Generation Capacity is reduced by a distributor-imposed export limit.

Roles and responsibilities

1.5 Distributors calculate the capacity according to the methodology in this guide.

1.6 Distributors enter DG information in the registry according to the timeframes in Part 11 of the Code.

1.7 The registry manager maintains the data and notifies registry users according to the registry functional specification.

Code reference

1.8 Part 11 of the Code contains the requirements for distributors to enter and maintain DG information in the registry.

1.9 The Code extract below was extracted on 1 August 2025 from Electricity Industry Participation Code 2010 | Electricity Authority.[1] The Code may be updated from time to time without this guide being updated. It is your responsibility to ensure you are aware of, and comply with, your current Code obligations.

Schedule 11.1 - Creation and management of ICPs, ICP identifiers and NSPs

…

7 Distributors to provide ICP information to registry manager

(1) A **distributor** must, for each **ICP** on the **distributor's network**, provide the following information to the **registry manager**:

…

(o) if the **ICP** connects the **distributor's network** to **distributed generation**,—

(i) the maximum amount of **electricity** that can be injected into the **distributor's network** from **distributed generation** connected to the **ICP**, which is the sum of the maximum amount of **electricity** each **generating unit** connected to the **ICP** can inject into the **distributor's network**, in kW; and

(ii) the number of **generating units**; and

(iii) for each **generating unit**, the number of individual items comprising the **generating unit** connected to the **ICP** (including, as separate items, any photovoltaic arrays, batteries, inverters and vehicle-to-grid installations which form part of a **generating unit**); and

(iv) for each individual item within a **generating unit** connected to the **ICP**—

(A) the generation fuel type or item type:

(B) the maximum export rate, or **nameplate capacity**, in kW:

(C) if the item is an inverter or vehicle-to-grid installation, the accredited performance standard, including its release date, to which the item complies:

(D) if the item is a battery or vehicle-to-grid installation, the maximum charge rate in kW:

(E) if the item is a battery, the maximum storage capacity in kWh:

[1] https://www.ea.govt.nz/code-and-compliance/code/

…

(q) if the **distributor** has determined a maximum export capacity for the **ICP**, the maximum export capacity in kW.

…

(1B) To avoid doubt, for the purposes of this clause, **distributed generation** includes photovoltaic arrays, batteries, inverters and vehicle-to-grid installations that are **synchronised** or capable of **synchronising** to inject **electricity** into the **distributor's network**.

(1C) To avoid doubt, for the purposes of this clause, a **generating unit** may comprise one or more items of equipment, such as those listed in subclause (1B), provided that item functions by itself as a single entity or those items function together as a single entity to produce electricity.

…

(10) A **distributor** is not required to provide information under subclause (1)(o) for **distributed generation** connected prior to 1 August 2025 unless after that date:

(a) the **distributor** collects information as part of observation of testing or in undertaking inspections at the **ICP** under clauses 7, 9C, or 22 of Schedule 6.1; or

(b) an application is made to connect additional **distributed generation** at the **ICP** under Part 6.

(11) A **distributor** may provide information under subclause (1)(o) for **distributed generation** connected to an **ICP** prior to 1 August 2025 if it chooses to do so.

8 Distributors to change ICP information provided to registry manager

(1) If information about an **ICP** provided to the **registry manager** in accordance with clause 7 changes, the **distributor** in whose **network** the **ICP** is located must give written notice to the **registry manager** of the change.

…

1.10 The Code contains other obligations on distributors and distributed generators that are not listed above. It is your responsibility to ensure you comply with these obligations.

Examples

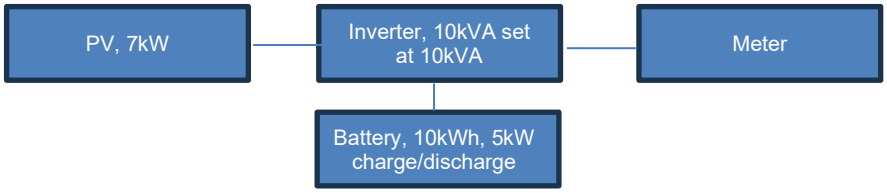
1.11 Based on the definitions above, the following scenarios illustrate how DG should be entered into the registry (all figures are full-load continuous ratings).

PV unit, Distributor export limit set at 5kW

DG Event Summary Row	
Count of Generating Units Connected	1
Count of Individual Items	2
Maximum Deliverable Generation Capacity	5
DG Detail Row	
Generating Unit Identifier	1
Fuel Type	Solar
Maximum Nameplate Capacity	7

DG Inverter Row	
Generating Unit Identifier	1
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

PV unit with battery and hybrid inverter, Distributor export limit set at 10kW



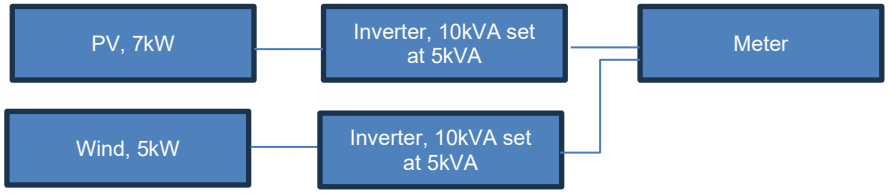
DG Event Summary Row	
Count of Generating Units Connected	1
Count of Individual Items	3
Maximum Deliverable Generation Capacity	10

DG Detail Row	
Generating Unit Identifier	1
Fuel Type	Solar
Maximum Nameplate Capacity	7

DG Inverter Row	
Generating Unit Identifier	1
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

DG Battery Row	
Generating Unit Identifier	1
Fuel Type	Battery
Nameplate storage in kWh	10
Maximum charge rate	5
Maximum discharge (export) rate	5

PV unit plus Wind turbine, Distributor export limit set at 10kW



DG Event Summary Row	
Count of Generating Units Connected	2
Count of Individual Items	4
Maximum Deliverable Generation Capacity	10

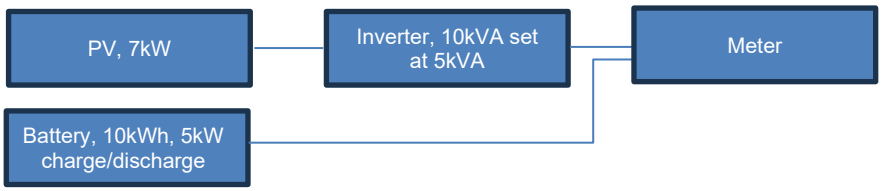
DG Detail Row	
Generating Unit Identifier	1
Fuel Type	Solar
Maximum Nameplate Capacity	7

DG Detail Row	
Generating Unit Identifier	2
Fuel Type	Wind
Maximum Nameplate Capacity	5

DG Inverter Row	
Generating Unit Identifier	1
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

DG Inverter Row	
Generating Unit Identifier	2
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

PV unit plus standalone battery, Distributor export limit set at 5kW



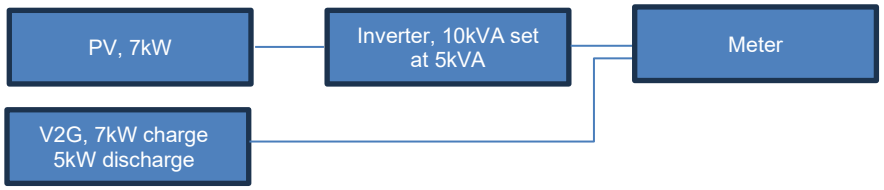
DG Event Summary Row	
Count of Generating Units Connected	2
Count of Individual Items	3
Maximum Deliverable Generation Capacity	10

DG Detail Row	
Generating Unit Identifier	1
Fuel Type	Solar
Maximum Nameplate Capacity	7

DG Inverter Row	
Generating Unit Identifier	1
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

DG Battery Row	
Generating Unit Identifier	2
Fuel Type	Battery
Nameplate storage in kWh	10
Maximum charge rate	5
Maximum discharge (export) rate	5

PV unit plus Electric Vehicle to Grid, Distributor export limit set at 5kW



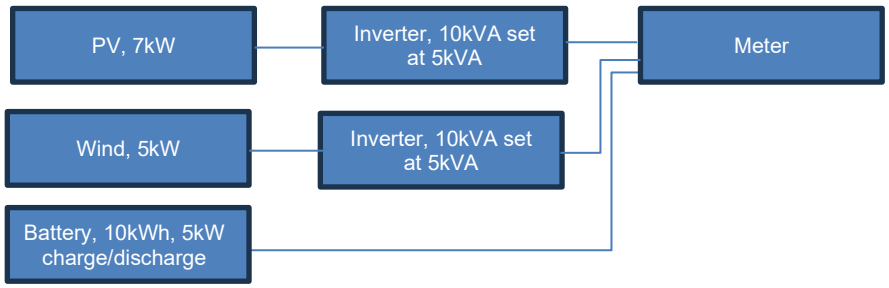
DG Event Summary Row	
Count of Generating Units Connected	2
Count of Individual Items	3
Maximum Deliverable Generation Capacity	10

DG Detail Row	
Generating Unit Identifier	1
Fuel Type	Solar
Maximum Nameplate Capacity	7

DG Inverter Row	
Generating Unit Identifier	1
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

DG Inverter Row	
Generating Unit Identifier	2
Fuel Type	Elec vehicle V2G
Maximum charge rate for V2G installations kW	7
Maximum discharge (export) rate	5
Accredited performance standard	4777.2:2020

PV unit, Wind turbine, plus standalone battery, Distributor export limit set at 10kW



DG Event Summary Row	
Count of Generating Units Connected	3
Count of Individual Items	5
Maximum Deliverable Generation Capacity	15

DG Detail Row	
Generating Unit Identifier	1
Fuel Type	Solar
Maximum Nameplate Capacity	7

DG Detail Row	
Generating Unit Identifier	2
Fuel Type	Wind
Maximum Nameplate Capacity	5

DG Inverter Row	
Generating Unit Identifier	1
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

DG Inverter Row	
Generating Unit Identifier	2
Fuel Type	Inverter
Maximum charge rate for V2G installations kW	–
Maximum discharge (export) rate	10
Accredited performance standard	4777.2:2020

DG Battery Row	
Generating Unit Identifier	3
Fuel Type	Battery
Nameplate storage in kWh	10
Maximum charge rate	5
Maximum discharge (export) rate	5

1.12 The Registry functional specification extract below was extracted on 1 August 2025 (version 22.43) from Registry Logon.[2] It may be updated from time to time without this guideline being updated. It is your responsibility to ensure you are aware of, and comply with, the current Registry functional specification.

DG-010 Add new Distributed Generation information (page 102)

…

DG event level 1 (summary information):

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	Must be 'S' for summary information
ICP Identifier	Char 15	M	Must be the same as the ICP Identifier in the header row
Count of Generating Units Connected	Numeric 2	M	Total number of Generating Units at the ICP. Must be >= 1
Count of Individual Items	Numeric 2	M	Total number of items within all Generating Units at the ICP. There must be this many generator, inverter and/or battery rows (G, I, or B) following this row for this ICP in the submission. For reversals only the Header row is required to be input and the summary line is not required. For all other updates this value must be >= 1.
Maximum Deliverable Generation Capacity	Numeric 10.2	M	The maximum electricity (in kW) that can be exported from the ICP into the network. May be 0, if not provided must default to 0.

DG detail Row(s):

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	'G' for DG generator information.
ICP	Char 15	M	Must be same as the ICP in the prior 'S' record
Generating Unit Identifier	Char 3	O	Used to identify which generating unit the item is, or is linked to
Fuel Type	Char	M	A valid Fuel Type (but not inverter, elec vehicl V2G or battery as these have their own record type)
Maximum Nameplate Capacity	Numeric 10.2	M	Nameplate capacity or export rate as appropriate. In kW. May be 0, if not provided must default to 0

[2] https://www.electricityregistry.co.nz/bin_public/jadehttp.dll?MariaWebR

DG Inverter Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	Must be 'I' for DG inverter information
ICP	Char 15	M	Must be same as the ICP in the prior 'S' record
Generating Unit Identifier	Char 3	O	Used to identify which generating unit the item is, or is linked to
Fuel Type	Char	M	Must be "inverter" or "elec vehicl V2G"
Maximum charge rate for V2G installations kW	Numeric 10.2	M	If fuel Type is "inverter" no value (or 0) must be provided. Mandatory if Fuel Type is "elec vehicl V2G"
Maximum discharge (export) rate	Numeric 10.2	M	In kW. May be 0, if not provided must default to 0
Accredited performance standard	Char 250	M	

DG Battery Row:

Event data	Format	Mandatory/ optional	Comments
Record Type	Char 1	M	Must be 'B' for DG battery information
ICP	Char 15	M	Must be same as the ICP in the prior 'S' record
Generating Unit Identifier	Char 3	O	Used to identify which generating unit the item is, or is linked to
Fuel Type	Char	M	Must be "battery"
Nameplate storage in kWh	Numeric 10.2	M	Storage capacity of the battery, as noted on the manufacturer's nameplate, in kWh. Must be >= 1
Maximum charge rate in kW	Numeric 8.2	M	Must be >= 1
Maximum discharge (export) rate in kW	Numeric 8.2	M	Must be >= 1