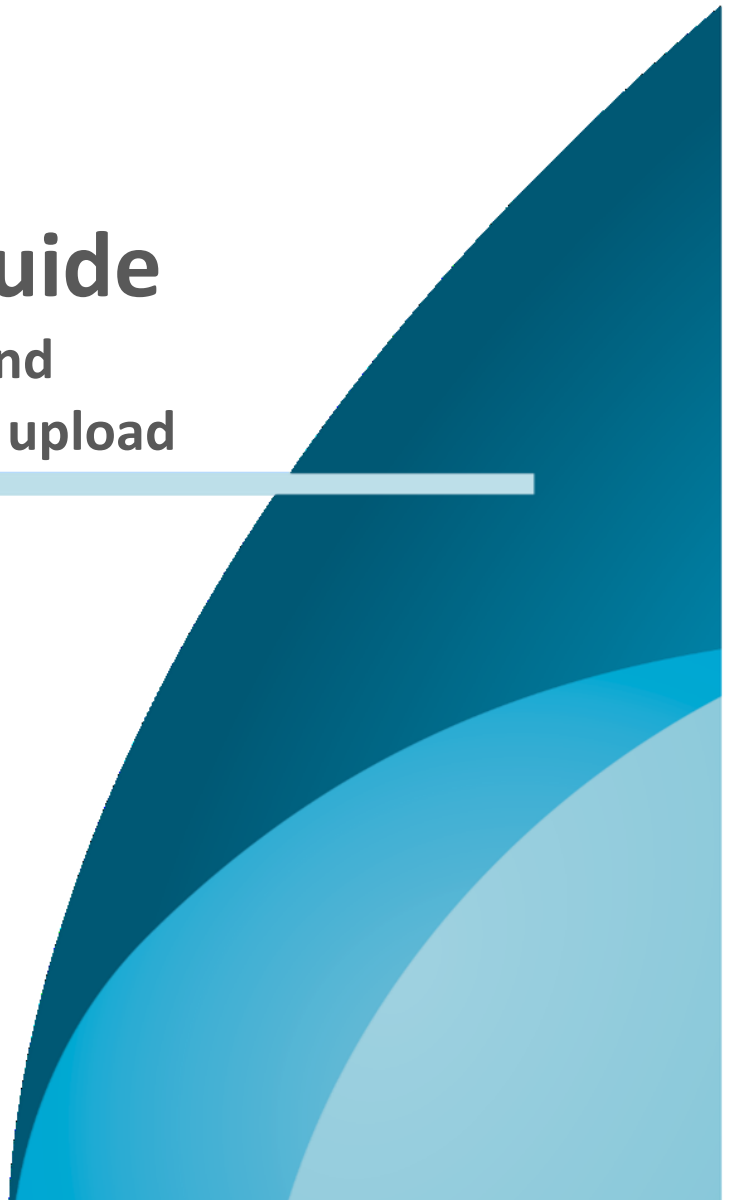**Australian Government**

**Clean Energy Regulator**

RENEWABLE
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# REC Registry guide

**Small generation unit and
solar water heater bulk upload**

# Contents

# About this guide

These guidelines aim to provide guidance for the creation of a bulk upload file to create small-scale technology certificates (STCs) in the redesigned REC Registry which comply with the *Renewable Energy (Electricity) Act 2000* and the *Renewable Energy (Electricity) Regulations 2001*. The REC Registry is a secure internet-based registry system which facilitates the creation, registration, transfer and voluntary surrender of small-scale technology certificates (STCs).

This document provides details of the small generation unit (SGU) and solar water heater/air source heat pump (SWH/ASHP) bulk upload file specifications for the redesigned REC Registry, including information about all validations required in each column of the file.

Included in these guidelines is:

- A description of the required file type, upload process and error handling process used by the REC Registry.

- A data dictionary for SGUs and SWHs/ASHPs.

- Business rules which must be applied during the processing of bulk upload files for SGUs and SWHs/ASHPs.

- The reference data that is required when registering SGUs and SWHs/ASHPs.

# Overview

Registered agents can create multiple small generation units (small-scale solar panel, small-scale wind and small-scale hydro) and solar water heaters/air source heat pump by using the bulk upload functionality.

# Data specification

## File type

| File type | CSV |
|---|---|
| File extension | .CSV |
| Character set | UTF-8 |
| Column delimiter | Comma |
| Text qualifier | Double quote |
| Header row | Required |
| Maximum number of records | 250 |

## Upload process

The REC Registry allows registered agents to create SGUs and SWHs in bulk using the bulk upload functionality within the REC Registry by logging into the REC Registry website[1].

The steps to bulk upload small generation units are:

- Login to the REC Registry website
- Click on 'Renewable energy systems' and select 'Small generation units'
- Click on the 'Register bulk SGU' button
- Select the bulk upload file and then click the 'Upload' button.

The steps to bulk upload solar water heater/air source heat pumps are:

- Login to the REC Registry website
- Click on 'Renewable energy systems' and then select 'Solar water heaters/air source heat pumps'
- Click on the button 'Register bulk SWH/ASHP'
- Select the bulk upload file and then click 'Upload' button.

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[1] www.rec-registry.gov.au

# Error handling

The validation of the bulk upload file is performed in two stages:

- Structural validation (stage-1):
  - » File structure and file type (CSV)
  - » Number of columns
  - » Number of rows
- Functional validation (stage-2):
  - » All mandatory fields are provided
  - » Correct values are provided against reference data
  - » Validations against business rules
  - » The header row matches exactly with the field name in the data dictionary

All errors encountered during the processing of the file are displayed to the user.

The bulk upload is an atomic operation i.e. either the complete bulk upload is successful or not at all. If during the bulk upload operation an error is encountered, then the user is required to correct the bulk upload file and re-upload it.

# Data dictionary

The data dictionary is divided into two sections:

- SGU – solar, wind and hydro fields: this table contains fields that are specific to SGU systems.
- SWH/ASHP fields: this table contains fields that are specific to SWH and ASHP systems.

In order to aid with the construction of the file separate serial numbers have been used within the data dictionary tables for "solar, wind and hydro" SGUs and SWHs respectively. The serial numbers within the data dictionary represent the order of the columns within the bulk upload file.

The data dictionary uses the following typographical conventions:

- The Data type "Int" is for integers, i.e. whole numbers;
- The Data type "Decimal(X,Y)" is for decimal numbers, where "X" is the total number of digits and "Y" is the number of digits to the right of the decimal place;
- The Data type "Text(X)" is for character data that must have no more than "X" number characters and including white spaces. The default encoding is UTF-8. The valid sets of characters include Printable UTF-8 [32 to 126].
- The Data type "Date" is for calendar date in the format DD/MM/YYYY;
- The Data type "Select List" is for specific list of values that must exist within the defined reference data.

## Data Dictionary - Small generation unit

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 1 | Type of system | Select List | Yes | - | - | System-type | - |
| 2 | Installation date | Date | Yes | - | SGU creation rule | - | - |
| 3 | System/panel brand | Select List | Yes | - | PV module | CEC approved PV modules | - |
| 4 | System/panel model | Select List | Yes | - | PV module | CEC approved PV modules | - |
| 5 | Inverter manufacturer | Select List | Yes | - | CEC Inverter | CEC approved inverters | - |
| 6 | Inverter series | Select List | Yes | - | CEC Inverter | CEC approved inverters | - |
| 7 | Inverter model number | Select List | Yes | - | CEC Inverter | CEC approved inverters | - |
| 8 | Type of connection to the electricity grid | Select List | Yes | - | Grid connected | Grid connected | - |
| 9 | System mounting type | Select List | Yes | - | Fire tested | Installation type | Applies to solar only |
| 10 | Is a site specific audit report available? | Select List | Yes | - | - | Yes or No | Applies to wind and hydro only |
| 11 | Are you installing a complete unit (adding capacity to an existing system is not considered a complete unit)? | Select List | Yes | - | - | Yes or No | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 12 | If this system is additional capacity to an existing system please provide detailed information on the position of the new panels and inverter (if applicable). System upgrades without a note explaining new panel locations will be failed by the Clean Energy Regulator | Text(4000) | No | *Mandatory if answered "No" to "Are you installing a complete unit (adding capacity to an existing system is not considered a complete unit)?"<br><br>Min length of string is 7 | - | - | - |
| 13 | For what period would you like to create RECs | Select List | Yes | - | - | Deeming period | - |
| 14 | What is the rated power output (in kW) of your small generation unit | Decimal(6,3) | Yes | Must be greater than 0 | Rated power output | - | - |
| 15 | Number of panels | Int | Yes* | *Mandatory for solar only.<br><br>Min 1 and Max 10000 | Number of panels (solar only) | - | Applies to solar only |
| 16 | Do you wish to use the default resource availability figure? | Select List | - | - | - | Yes or No | Applies to wind and hydro only<br><br>Default resource availability for small-scale wind is 2000 hours per annual<br><br>Default resource availability for small-scale hydro is 4000 hours per annual |
| 17 | What is your resource availability (hours per annum) for your system? | Int | No* | *Mandatory if answered "no" to "Do you wish to use the default resource availability figure?"<br><br>Min value: 1 and Max value: 8,760 | - | - | Applies to wind and hydro only |
| 18 | Equipment model serial number(s) | Text(101,000) | Yes* | Multiple serial numbers –delimited by semicolons ';'.<br><br>Each serial number can be up to 100 characters long<br><br>User can enter up to 1000 serial numbers | Serial number | - | - |
| 19 | Are you creating certificates for a system that has previously been failed by the Clean Energy Regulator? | Select List | Yes | - | - | Yes or No | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 20 | Accreditation code | Text(255) | No* | *Mandatory if answered "Yes" to "Are you creating certificates for a system that has previously been failed by the Clean Energy Regulator?" | Accreditation code | - | - |
| 21 | Explanatory notes for re-creating certificates previously failed | Text(4000) | No* | *Mandatory if answered "yes" to "Are you creating certificates for a system that has previously been failed by the Clean Energy Regulator?" | - | - | - |
| 22 | Reference | Text(255) | No | - | - | - | A reference is an attribute you can use to search for your small unit registrations |
| 23 | Certificate tag | Text(255) | No | - | - | - | Use certificate tags to identify certificates when search and completing other REC Registry transactions |
| 24 | CEC accreditation statement | Select List | Yes* | *Optional if installation date before 6/10/2007 | - | Yes or No | - |
| 25 | Local, State and Territory government Siting approvals | Select List | Yes* | *Optional if installation date before 6/10/2007 | - | Yes or No | - |
| 26 | Electrical safety documentation | Select List | Yes* | *Optional if installation date before 6/10/2007 | - | Yes or No | - |
| 27 | Australian/New Zealand standards statement | Select List | Yes* | *Optional if installation date before 6/10/2007 | - | Yes or No | - |
| 28 | Not grid-connected statement | Select List | Yes* | *Optional if installation date before 6/10/2007  Must be "yes" if answered "Stand-alone (not connected to electricity grid)" to "Type of connection to the electricity grid"; otherwise must be "no". | - | Yes or No | - |
| 29 | Installation property type | Select List | Yes | - | - | Property type | - |
| 30 | Single or multi-story | Select List | Yes | - | - | Single or multi story | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 31 | Installation property name, boat name or chassis number | Text(100) | No | - | - | - | - |
| 32 | Installation unit type | Select List | No* | - | Valid installation address | Unit type | Must be valid physical address located within Australia |
| 33 | Installation unit number | Text(10) | No* | - | Valid installation address | - | Numbers and letters can be entered e.g. 3a |
| 34 | Installation street number | Text(15) | No* | - | Valid installation address | - | - |
| 35 | Installation street name | Text(45) | Yes | - | Valid installation address | - | - |
| 36 | Installation street type | Select List | Yes | - | Valid installation address | Street type | - |
| 37 | Installation town/suburb | Text(80) | Yes | - | Valid installation address | | - |
| 38 | Installation state | Text(3) | Yes | - | Valid installation address | State | - |
| 39 | Installation postcode | Text(8) | Yes | - | Valid installation address | Postcode | - |
| 40 | Installation latitude | Decimal(12,9) | No | -90 to 90 Up to 9 decimal places | - | - | - |
| 41 | Installation longitude | Decimal(12,9) | No | -180' to 180' Up to 9 decimal places | - | - | - |
| 42 | Is there more than one SGU at this address? | Select List | Yes | - | - | Yes or No | - |
| 43 | If the address entered above does not adequately describe the location of the system please provide further detailed information for the Clean Energy Regulator to locate the system | Text(4000) | No | *Mandatory if answered "Yes" to "Is there more than one SGU at this address?" Min length of string is 7 | - | - | - |
| 44 | Additional system information | Text(4000) | No | - | - | - | - |
| 45 | Owner type | SelectList | Yes | | | Owner type | |
| 46 | Owner organisation name | Text(200) | No | Mandatory if answered "Government body, Corporate body, Trustee" to "Owner type" | | | |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 46a | Owner first name | Text(100) | No | Mandatory if answered "Individual" to "Owner type" | - | - | - |
| 46b | Owner surname | Text(100) | No | Mandatory if answered "Individual" to "Owner type" | - | - | - |
| 47 | Owner phone | Text(16) | Yes | Min length: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start. | - | - | - |
| 48 | Owner fax | Text(16) | No | Min length: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 49 | Owner mobile | Text(16) | No | Min length: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 50 | Owner email | Text(255) | No | Valid email format | - | - | - |
| 51 | Owner address type | Select List | Yes | - | Valid owner address | Address type | |
| 52 | Owner postal delivery type | Select List | No* | - | Valid owner address | Postal delivery type | Valid physical or postal address anywhere in the world. |
| 53 | Owner postal delivery number | Text(11) | No* | - | Valid owner address | - | - |
| 54 | Owner unit type | Select List | No* | - | Valid owner address | Unit type | - |
| 55 | Owner unit number | Text(10) | No* | - | Valid owner address | - | - |
| 56 | Owner street number | Text(15) | Yes | - | Valid owner address | - | - |
| 57 | Owner street name | Text(45) | Yes | - | Valid owner address | - | - |
| 58 | Owner street type | Select List | Yes | - | Valid owner address | Street type | - |
| 59 | Owner town/suburb | Text(80) | Yes | - | Valid owner address | - | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 60 | Owner state | Text(3) | Yes | - | Valid owner address | State | State need not be entered if International Address selected |
| 61 | Owner postcode | Text(8) | No* | - | Valid owner address | - | - |
| 62 | Owner country | Select List | Yes | - | Valid owner address | Country | - |
| 63 | Installer first name | Text(100) | Yes | - | - | - | - |
| 64 | Installer surname | Text(100) | Yes | - | - | - | - |
| 65 | CEC accredited installer number | Text(100) | Yes | The installer number must be a CEC accredited number and the system must be installed within the period of accreditation<br><br>The installer number must be for an accredited CEC installer with the appropriate grid connection qualification i.e. if answered "Stand-alone (not connected to electricity grid)" to "Type of connection to the electricity grid" installer must have off-grid accreditation | Grid connected CEC installer<br><br>Stand-alone CEC installer | - | - |
| 66 | Installer phone | Text(16) | Yes | Min: 6<br><br>Must only contains digits [0-9]<br><br>Can have an optional '+' at the start. | Text(16) | - | - |
| 67 | Installer fax | Text(16) | No | Min: 6<br><br>Must only contains digits [0-9]<br><br>Can have an optional '+' at the start | Text(16) | - | - |
| 68 | Installer mobile | Text(16) | No | Min: 6<br><br>Must only contains digits [0-9]<br><br>Can have an optional '+' at the start | Text(16) | - | - |
| 69 | Installer email | Text(255) | No | Valid email format | Text(255) | - | - |
| 70 | Installer address type | | Yes | - | Valid installer address | Address type | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 71 | Installer postal delivery type | Select List | No* | - | Valid installer address | Postal delivery type | Must be valid physical address located within Australia. |
| 72 | Installer postal delivery number | Text(11) | No* | - | Valid installer address | - | - |
| 73 | Installer unit type | Select List | No* | - | Valid installer address | Unit type | - |
| 74 | Installer unit number | Text(10) | No* | - | Valid installer address | - | - |
| 75 | Installer street number | Text(15) | No* | - | Valid installer address | - | - |
| 76 | Installer street name | Text(45) | Yes | - | Valid installer address | - | - |
| 77 | Installer street type | Select List | Yes | - | Valid installer address | Street type | - |
| 78 | Installer town/suburb | Text(80) | Yes | - | Valid installer address | - | - |
| 79 | Installer state | Text(3) | Yes | - | Valid installer address | State | - |
| 80 | Installer postcode | Text(8) | Yes | - | Valid installer address | Postcode | - |
| 81 | Electrician first name | Text(100) | Yes | - | - | - | - |
| 82 | Electrician surname | Text(100) | Yes | - | - | - | - |
| 83 | Licensed electrician number | Text(100) | Yes | - | - | - | - |
| 84 | Electrician phone | Text(16) | Yes | Min: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 85 | Electrician fax | Text(16) | No | Min: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 86 | Electrician mobile | Text(16) | No | Min: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 87 | Electrician email | Text(255) | No | Valid email format | - | - | - |
| 88 | Electrician address type | Select List | Yes | - | Valid electrician address | Address type | - |
| 89 | Electrician postal delivery type | Select List | No* | - | Valid electrician address | Postal delivery type | Must be valid physical address located within Australia. |
| 90 | Electrician postal delivery number | Text(11) | No* | - | Valid electrician address | - | - |
| 91 | Electrician unit type | Select List | No* | - | Valid electrician address | Unit type | - |
| 92 | Electrician unit number | Text(10) | No* | - | Valid electrician address | - | - |
| 93 | Electrician street number | Text(15) | No* | - | Valid electrician address | - | - |
| 94 | Electrician street name | Text(45) | Yes | - | Valid electrician address | - | - |
| 95 | Electrician street type | Select List | Yes | - | Valid electrician address | Street type | - |
| 96 | Electrician town/suburb | Text(80) | Yes | - | Valid electrician address | - | - |
| 97 | Electrician state | Text(3) | Yes | - | Valid electrician address | State | - |
| 98 | Electrician postcode | Text(8) | Yes | - | Valid electrician address | Postcode | - |
| 99 | Designer first name | Text(100) | Yes | - | - | - | - |
| 100 | Designer surname | Text(100) | Yes | - | - | - | - |
| 101 | CEC accredited designer number | Text(100) | Yes | The designer number must be a CEC accredited designer number and the system must be installed within the period of accreditation<br><br>The designer number must for an accredited CEC designer with the appropriate grid connection qualification i.e. if answered "Stand-alone (not connected to electricity grid)" to "Type of connection to the electricity grid" installer must have off-grid design accreditation. | Grid connected CEC designer<br><br>Stand-alone CEC designer | - | - |

| # SGU (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rule section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 102 | Designer phone | Text(16) | Yes | Min: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 103 | Designer fax | Text(16) | No | Min: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 104 | Designer mobile | Text(16) | No | Min: 6<br>Must only contains digits [0-9]<br>Can have an optional '+' at the start | - | - | - |
| 105 | Designer email | Text(255) | No | Valid email format | - | - | - |
| 106 | Designer address type | Select List | Yes | - | Valid designer address | Address type | - |
| 107 | Designer postal delivery type | Select List | No* | - | Valid designer address | Postal delivery type | Must be valid physical address located within Australia |
| 108 | Designer postal delivery number | Text(11) | No* | - | Valid designer address | - | - |
| 109 | Designer unit type | Select List | No* | - | Valid designer address | Unit type | - |
| 110 | Designer unit number | Text(10) | No* | - | Valid designer address | - | - |
| 111 | Designer street number | Text(15) | No* | - | Valid designer address | - | - |
| 112 | Designer street name | Text(45) | Yes | - | Valid designer address | - | - |
| 113 | Designer street type | Select List | Yes | - | Valid designer address | Street type | - |
| 114 | Designer town/suburb | Text(80) | Yes | - | Valid designer address | - | |
| 115 | Designer state | Text(3) | Yes | - | Valid designer address | State | - |
| 116 | Designer postcode | Text(8) | Yes | - | Valid designer address | Postcode | - |

## Data Dictionary – Solar water heater/Air source heat pump

### SWH fields

| #SWH (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rules section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 1 | System brand | Select List | Yes | - | - | Register of solar water heaters | - |
| 2 | System model | Select List | Yes | - | - | Register of solar water heaters | - |
| 3 | Tank serial number(s) | Text(101,000) | Yes | Multiple serial numbers delimited by semicolons - ';'. Each serial number can be up to 100 characters long. User can enter up to 1000 serial numbers. | Serial number | - | - |
| 4 | Number of panels | Int | Yes | Min 0 and Max 1000 | Number of panels | - | For evacuated tubes enter the number of tubes for air source heat pumps enter zero |
| 5 | Installation date | Date | Yes | - | SWH creation rule | - | - |
| 6 | Installation type | Select List | Yes | - | - | SWH installation type | - |
| 7 | Is the volumetric capacity of this installation greater than 700L | Select List | Yes | - | - | Yes or No | - |
| 8 | Statutory declarations sent | Select List | Yes (if previous question is answered Yes) | This question should be answered 'Yes' if question 7 is answered 'Yes' | - | Yes or No | - |
| 9 | Is your water heater second hand | Select List | Yes | - | - | Yes or No | - |
| 10 | Reference | Text(255) | No | - | - | - | A reference is an attribute you can use to search for your small unit registrations |
| 11 | Certificate tag | Text(255) | No | - | - | - | Use certificate tags to identify certificates when search and completing other REC Registry transactions |
| 12 | Installation property type | Select List | Yes | - | - | Property type | - |
| 13 | Installation single or multi-story | Select List | Yes | - | - | Single or multi story | - |

| #SWH (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rules section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 14 | Installation property name or boat name or chassis number | Text(100) | No | - | - | - | - |
| 15 | Installation unit type | Select List | No* | - | Valid installation address | Unit type | Must be valid physical address located within Australia. |
| 16 | Installation unit number | Text(10) | No* | - | Valid installation address | - | - |
| 17 | Installation street number | Text(15) | No* | - | Valid installation address | - | - |
| 18 | Installation street name | Text(45) | Yes | - | Valid installation address | - | - |
| 19 | Installation street type | Select List | Yes | - | Valid installation address | Street type | - |
| 20 | Installation town/suburb | Text(80) | Yes | | Valid installation address | - | - |
| 21 | Installation state | Text(3) | Yes | - | Valid installation address | State | - |
| 22 | Installation postcode | Text(8) | Yes | - | Valid installation address | Postcode | - |
| 23 | Installation latitude | Decimal(3,9) | No | -90 to 90<br><br>Up to 9 decimal places | - | - | - |
| 24 | Installation longitude | Decimal(3,9) | No | -180' to 180'<br><br>Up to 9 decimal places | - | - | - |
| 25 | Is there more than one SWH/ASHP at this address | Select List | Yes | - | - | Yes or No | |
| 26 | Additional system information | Text(4000) | No* | *Mandatory if answered "Yes" to "Is there more than one SWH/ASHP at this address? | - | - | - |
| 27 | Creating certificates for previously failed SWH | Select List | Yes | - | - | Yes or No | |
| 28 | Failed accreditation code | Text(255) | Yes (if previous question is answered Yes) | - | Accreditation code | - | - |
| 29 | Explanatory notes for failed accreditation code | Text(4000) | Yes(if the previous question is answered Yes) | - | - | - | - |
| 30 | Installation special address | Text (4000) | No | Min length of string is 7 | - | - | - |

| #SWH (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rules section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 31 | Owner type | SelectList | Yes | | | Owner type | |
| 32 | Owner organisation name | Text(200) | No | Mandatory if answered " Government body, Corporate body, Trustee" to "Owner type" | | | |
| 32a | Owner first name | Text(100) | No | Mandatory if answered "Individual" to "Owner type" | - | - | - |
| 32b | Owner surname | Text(100) | No | Mandatory if answered "Individual" to "Owner type" | - | - | - |
| 33 | Owner phone | Text(16) | Yes | Min: 6 <br> Must only contains digits [0-9] <br> Can have an optional '+' at the start. | - | - | - |
| 34 | Owner fax | Text(16) | No | Min: 6 <br> Must only contains digits [0-9] <br> Can have an optional '+' at the start | - | - | - |
| 35 | Owner mobile | Text(16) | No | Min: 6 <br> Must only contains digits [0-9] <br> Can have an optional '+' at the start | - | - | - |
| 36 | Owner email | Text(255) | No | Valid email format | - | - | - |
| 37 | Owner address type | Select List | Yes | - | Valid owner address | Address type | Valid physical or postal address anywhere in the world |
| 38 | Owner postal delivery type | Select List | No* | - | Valid owner address | Postal delivery type | |
| 39 | Owner postal delivery number | Text(11) | No* | - | Valid owner address | - | - |
| 40 | Owner unit type | Select List | No* | - | Valid owner address | Unit type | - |
| 41 | Owner unit number | Text(10) | No* | - | Valid owner address | - | - |
| 42 | Owner street number | Text(15) | No* | - | Valid owner address | - | - |
| 43 | Owner street name | Text(45) | Yes | - | Valid owner address | - | - |

| #SWH (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rules section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 44 | Owner street type | Select List | Yes | - | Valid owner address | Street type | - |
| 45 | Owner town/suburb | Text(80) | Yes | - | Valid owner address | - | - |
| 46 | Owner state | Text(3) | No* | - | Valid owner address | State | State need not be entered if International Address selected |
| 47 | Owner postcode | Text(8) | Yes | - | Valid owner address | - | - |
| 48 | Owner country | Select List | Yes | - | Valid owner address | Country | |
| 49 | Installer first name | Text(100) | Yes | - | - | - | - |
| 50 | Installer surname | Text(100) | Yes | - | - | - | - |
| 51 | Installer phone | Text(16) | Yes | Min: 6 Must only contains digits [0-9] Can have an optional '+' at the start. | - | - | - |
| 52 | Installer fax | Text(16) | No | Min: 6 Must only contains digits [0-9] Can have an optional '+' at the start | - | - | - |
| 53 | Installer mobile | Text(16) | No | Min: 6 Must only contains digits [0-9] Can have an optional '+' at the start | - | - | - |
| 54 | Installer email | Text(255) | No | Valid email format | - | - | - |
| 55 | Installer address type | Select List | Yes | - | Valid installer address | Address type | Must be valid physical address located within Australia. |
| 56 | Installer postal delivery type | Select List | No* | | Valid installer address | Postal delivery type | |
| 57 | Installer postal delivery number | Text(11) | No* | | Valid installer address | | |
| 58 | Installer unit type | Select List | No* | | Valid installer address | Unit type | |
| 59 | Installer unit number | Text(10) | No* | | Valid installer address | | |

| #SWH (Order of column) | Field name | Data type | Mandatory | Validation rules | Business rules (refer to business rules section) | Reference data (refer to reference data section) | Description |
|---|---|---|---|---|---|---|---|
| 60 | Installer street number | Text(15) | No[*] | | Valid installer address | | |
| 61 | Installer street name | Text(45) | Yes | | Valid installer address | | |
| 62 | Installer street type | Select List | Yes | | Valid installer address | Street type | |
| 63 | Installer town/suburb | Text(80) | Yes | | Valid installer address | | |
| 64 | Installer state | Text(3) | Yes | | Valid installer address | State | |
| 65 | Installer postcode | Text(8) | Yes | | Valid installer address | Postcode | |

# Business rules

Below are the common rules that apply to all kinds of bulk upload operation:

- All values specified are treated in a case insensitive manner.
- The bulk upload is an atomic operation, i.e. either the complete bulk upload is successful or not at all.

| Rule name | Rule |
|-----------|------|
| **Minimum certificate** | SGU registrations and SWH/ASHP registrations must be eligible for at least one certificate |
| **SGU creation rule** | The installation date must not be prior to 1/4/2001<br><br>The installation date for a SGU must be either within the last 12 months of the upload date or be prior to 6/10/2007 |
| **SWH creation rule** | The installation date for a SWH must be within the last 12 months of the upload date |
| **PV module** | The SGU installation date must fall on or between the 'CEC approved date' and 'Expiry date' for the specified PV brand and module |
| **CEC Inverter** | The SGU installation date must fall on or between the 'Approval date' and 'Expiry date' for the specified inverter manufacturer, series and model number |
| **Deeming period** | SGUs can only be registered for one and five year deeming periods if the installation date is prior to 6/10/2007<br><br>Solar can be otherwise deemed for fifteen years<br><br>Wind and hydro systems can only be registered for one and five year deeming periods<br><br>SGUs can only be registered for the remainder of the RET scheme. For further information on valid deeming period please see the section reference data |
| **Fire tested** | If the SGU is installed on a 'Building or structure', then the specified panel brand and model must be fire tested |
| **Grid connected CEC installer** | If the SGU system is grid connected, the installer specified must be accredited to install grid connected SGUs |
| **Grid connected CEC designer** | If the SGU system is grid connected, the designer specified must be accredited to design grid connected SGUs |
| **Stand-alone CEC installer** | If the SGU system is stand-alone, the installer specified must be accredited to install stand-alone SGUs |

| Rule name | Rule |
|---|---|
| **Stand-alone CEC designer** | If the SGU system is stand-alone, the designer specified must be accredited to design stand-alone SGUs |
| **Rated power output** | Solar: must be greater than 0 and less than or equal to 100kW<br><br>Wind: must be greater than 0 and less than or equal to 10kW<br><br>Hydro: must be greater than 0 and less than or equal to 6.4kW |
| **Number of panels** | If the number of panels is less than or equal to 1000, then they must match with the number of solar panel serial numbers |
| **Accreditation code** | The accreditation code provided must exist within the system |
| **Serial number** | All serial numbers provided must be unique |
| **Valid installation address** | The installation postcode and suburb must be a valid match according to the Postcode / suburb map reference data<br><br>The installation address must be an Australian valid physical address according to Appendix B: Address validation rules |
| **Valid owner address** | If the owner address is in Australia, the owner postcode and suburb must be a valid match according to the Postcode / suburb map reference data<br><br>The owner address must be a valid physical or postal address according to Appendix B: Address validation rules |
| **Valid installer address** | The installer postcode and suburb must be a valid match according to the Postcode / suburb map reference data<br><br>The owner address must be a valid Australian physical or postal address according to Appendix B: Address validation rules |
| **Valid electrician address** | The electrician postcode and suburb must be a valid match according to the Postcode / suburb map reference data<br><br>The electrician address must be a valid Australian physical or postal address according to Appendix B: Address validation rules |
| **Valid designer address** | The designer postcode and suburb must be a valid match according to the Postcode / suburb map reference data<br><br>The designer address must be a valid Australian physical or postal address according to Appendix B: Address validation rules |

# Reference data

| System type |
| --- |
| S.G.U. - Solar (Deemed) |
| S.G.U. - Wind (Deemed) |
| S.G.U. - Hydro (Deemed) |

# Deeming period

| Installation year | Solar | Wind | Hydro |
| --- | --- | --- | --- |
| 2013 | One year, Five years, Fifteen years | One year, Five years | One year, Five years |
| 2014 | One year, Five years, Fifteen years | One year, Five years | One year, Five years |
| 2015 | One year, Five years, Fifteen years | One year, Five years | One year, Five years |
| 2016 | One year, Five years, Fifteen years | One year, Five years | One year, Five years |
| 2017 | One year, Five years, Fourteen years | One year, Five years | One year, Five years |
| 2018 | One year, Five years, Thirteen years | One year, Five years | One year, Five years |
| 2019 | One year, Five years, Twelve years | One year, Five years | One year, Five years |
| 2020 | One year, Five years, Eleven years | One year, Five years | One year, Five years |
| 2021 | One year, Five years, Ten years | One year, Five years | One year, Five years |
| 2022 | One year, Five years, Nine years | One year, Five years | One year, Five years |
| 2023 | One year, Five years, Eight years | One year, Five years | One year, Five years |

| Installation year | Solar | Wind | Hydro |
|---|---|---|---|
| 2024 | One year, Five years, Seven years | One year, Five years | One year, Five years |
| 2025 | One year, Five years, Six years | One year, Five years | One year, Five years |
| 2026 | One year, Five years | One year, Five years | One year, Five years |
| 2027 | One year, Four years | One year, Four years | One year, Four years |
| 2028 | One year, Three years | One year, Three years | One year, Three years |
| 2029 | One year, Two years | One year, Two years | One year, Two years |
| 2030 | One year | One year | One year |

| Register of solar water heaters |
|---|
| For a full list of eligible solar water heater and air source heat pump water heaters on the Register of solar water heaters visit the Clean Energy Regulator website. |

| CEC approved PV modules |
|---|
| For a full list of Clean Energy Council approved PV modules visit the Tools and Resources for Agents page on the Clean Energy Regulator website. |

| CEC approved inverters |
|---|
| For a full list of Clean Energy Council approved inverters visit the Tools and Resources for Agents page on the Clean Energy Regulator website. |

| Grid connected |
|---|
| Connected to an electricity grid without battery storage |
| Connected to an electricity grid with battery storage |
| Stand-alone (not connected to an electricity grid) |

| Installation type |
| --- |
| Building or structure |
| Ground mounted or free standing |

| SWH installation type |
| --- |
| New building |
| Replaced electric heater |
| Replaced solar water heater |
| First solar water heater at existing building |
| Replace gas water heater |
| Other |

| Yes or No |
| --- |
| Yes |
| Y |
| No |
| N |

| Property type |
| --- |
| Residential |
| School |
| Commercial |

| Single or multi story |
| --- |
| Single story |

| |
|---|
| Multi story |

| Owner type |
|---|
| Individual |
| Government body |
| Corporate body |
| Trustee |

| Address type |
|---|
| Physical |
| Postal |

| Postal delivery type | Code |
|---|---|
| CARE-OF POST OFFICE | CARE PO |
| COMMUNITY MAIL AGENT | CMA |
| COMMUNITY MAIL BAG | CMB |
| GENERAL POST OFFICE BOX | GPO BOX |
| LOCKED MAIL BAG SERVICE | LOCKED BAG |
| MAIL SERVICE | MS |
| POST OFFICE BOX | PO BOX |
| PRIVATE MAIL BAG SERVICE | PRIVATE BAG |
| ROADSIDE DELIVERY | RSD |
| ROADSIDE MAIL BOX/BAG | RMB |
| ROADSIDE MAIL SERVICE | RMS |

| Unit type | Code |
|---|---|
| ANTENNA | ANT |
| APARTMENT | APT |
| AUTOMATED TELLER MACHINE | ATM |
| BARBECUE | BBQ |
| BLOCK | BLOCK |
| BOATSHED | BTSD |
| BUILDING | BLDG |
| BUNGALOW | BNGW |
| CAGE | CAGE |
| CARPARK | CARP |
| CARSPACE | CARS |
| CLUB | CLUB |
| COOLROOM | COOL |
| COTTAGE | CTGE |
| DUPLEX | DUPL |
| FACTORY | FCTY |
| FLAT | FLAT |
| FLOOR | FLOOR |
| GARAGE | GRGE |
| GRID | GRID |
| HALL | HALL |
| HOUSE | HSE |
| JETTY | JETTY |

| Unit type | Code |
|---|---|
| KIOSK | KSK |
| LEASE | LSE |
| LEVEL | LEVEL |
| LOBBY | LBBY |
| LOC | LOC |
| LOFT | LOFT |
| LOT | LOT |
| MAISONETTE | MSNT |
| MARINE BERTH | MBTH |
| OFFICE | OFFC |
| RESERVE | RESV |
| ROOM | ROOM |
| SECTION | SECTION |
| SHED | SHED |
| SHOP | SHOP |
| SHOWROOM | SHRM |
| SIGN | SIGN |
| SITE | SITE |
| STALL | STLL |
| STORE | STOR |
| STRATA UNIT | STR |
| STUDIO | STU |
| SUBSTATION | SUBS |

| Unit type | Code |
|-----------|------|
| SUITE | SE |
| TENANCY | TNCY |
| TOWER | TWR |
| TOWNHOUSE | TNHS |
| VAULT | VLT |
| VILLA | VLLA |
| WARD | WARD |
| WAREHOUSE | WHSE |
| WORKSHOP | WKSH |

| Street type | Code |
|-------------|------|
| ACCESS | ACCS |
| ALLEY | ALLY |
| ALLEYWAY | ALWY |
| AMBLE | AMBL |
| APPROACH | APP |
| ARCADE | ARC |
| ARTERIAL | ARTL |
| ARTERY | ARTY |
| AVENUE | AV |
| BANAN | BA |
| BEND | BEND |
| BOARDWALK | BWLK |

| Street type | Code |
|---|---|
| BOULEVARD | BVD |
| BRACE | BR |
| BRAE | BRAE |
| BREAK | BRK |
| BROADWAY | BWY |
| BROW | BROW |
| BYPASS | BYPA |
| BYWAY | BYWY |
| CAUSEWAY | CSWY |
| CENTRE | CTR |
| CHASE | CH |
| CIRCLE | CIR |
| CIRCUIT | CCT |
| CIRCUS | CRCS |
| CLOSE | CL |
| COMMON | COMN |
| CONCOURSE | CON |
| COPSE | CPS |
| CORNER | CNR |
| COURT | CT |
| COURTYARD | CTYD |
| COVE | COVE |
| CRESCENT | CR |

| Street type | Code |
|---|---|
| CREST | CRST |
| CROSS | CRSS |
| CUL-DE-SAC | CSAC |
| CUTTING | CUTT |
| DALE | DALE |
| DIP | DIP |
| DRIVE | DR |
| DRIVEWAY | DVWY |
| EDGE | EDGE |
| ELBOW | ELB |
| END | END |
| ENTRANCE | ENT |
| ESPLANADE | ESP |
| EXPRESSWAY | EXP |
| FAIRWAY | FAWY |
| FOLLOW | FOLW |
| FOOTWAY | FTWY |
| FORMATION | FORM |
| FREEWAY | FWY |
| FRONTAGE | FRTG |
| GAP | GAP |
| GARDENS | GDNS |
| GATE | GTE |

| Street type | Code |
| --- | --- |
| GLADE | GLDE |
| GLEN | GLEN |
| GRANGE | GRA |
| GREEN | GRN |
| GROVE | GR |
| HEIGHTS | HTS |
| HIGHROAD | HIRD |
| HIGHWAY | HWY |
| HILL | HILL |
| INTERCHANGE | INTG |
| JUNCTION | JNC |
| KEY | KEY |
| LANE | LANE |
| LANEWAY | LNWY |
| LINE | LINE |
| LINK | LINK |
| LOOKOUT | LKT |
| LOOP | LOOP |
| MALL | MALL |
| MEANDER | MNDR |
| MEWS | MEWS |
| MOTORWAY | MTWY |
| NOOK | NOOK |

| Street type | Code |
|---|---|
| OUTLOOK | OTLK |
| PARADE | PDE |
| PARKWAY | PWY |
| PASS | PASS |
| PASSAGE | PSGE |
| PATH | PATH |
| PATHWAY | PWAY |
| PIAZZA | PIAZ |
| PLACE | PL |
| PLAZA | PLZA |
| POCKET | PKT |
| POINT | PNT |
| PORT | PORT |
| PROMENADE | PROM |
| QUADRANT | QDRT |
| QUAYS | QYS |
| RAMBLE | RMBL |
| REST | REST |
| RETREAT | RTT |
| RIDGE | RDGE |
| RISE | RISE |
| ROAD | RD |
| ROTARY | RTY |

| Street type | Code |
|---|---|
| ROUTE | RTE |
| ROW | ROW |
| RUE | RUE |
| SERVICEWAY | SVWY |
| SHUNT | SHUN |
| SPUR | SPUR |
| SQUARE | SQ |
| STREET | ST |
| STRIP | STRP |
| SUBWAY | SBWY |
| TARN | TARN |
| TERRACE | TCE |
| THOROUGHFARE | THFR |
| TOLLWAY | TLWY |
| TOP | TOP |
| TOR | TOR |
| TRACK | TRK |
| TRAIL | TRL |
| TURN | TURN |
| UNDERPASS | UPAS |
| VALE | VALE |
| VIADUCT | VIAD |
| VIEW | VIEW |

| Street type | Code |
| --- | --- |
| VILLAGE | VILG |
| VISTA | VSTA |
| WALK | WALK |
| WALKWAY | WKWY |
| WATERS | WTRS |
| WAY | WAY |
| WHARF | WHRF |
| WYND | WYND |

| State/Territory | Code |
| --- | --- |
| Australian Capital Territory | ACT |
| New South Wales | NSW |
| Northern Territory | NT |
| Queensland | QLD |
| South Australia | SA |
| Tasmania | TAS |
| Victoria | VIC |
| Western Australia | WA |

| Country |
| --- |
| Refer to Appendix (Section 3) for a full list of country codes. |

| Postcode |
| --- |

The postcode data is under Australia Post licence.  A free download is available for non-commercial use or a commercial licence can be purchased from Australia Post[2].

The REC Registry uses the following web service query to validate the postcode and postcode/suburb map
http://auspost.com.au/api/postcode/search.json?q={postcode}&state={state}

---

[2] http://www.postconnect.com.au/postcode-data

# Appendix A: Country reference data

| Country | Code |
|---|---|
| ASCENSION ISLAND | AC |
| ANDORRA | AD |
| UNITED ARAB EMIRATES | AE |
| AFGHANISTAN | AF |
| ANTIGUA AND BARBUDA | AG |
| ANGUILLA | AI |
| ALBANIA | AL |
| ARMENIA | AM |
| NETHERLANDS ANTILLES | AN |
| ANGOLA | AO |
| ANTARCTICA | AQ |
| ARGENTINA | AR |
| AMERICAN SAMOA | AS |
| AUSTRIA | AT |
| AUSTRALIA | AU |
| ARUBA | AW |
| AZERBAIJAN | AZ |
| BOSNIA AND HERZEGOVINA | BA |
| BARBADOS | BB |
| BANGLADESH | BD |
| BELGIUM | BE |
| BURKINA FASO | BF |

| Country | Code |
|---|---|
| BULGARIA | BG |
| BAHRAIN | BH |
| BURUNDI | BI |
| BENIN | BJ |
| BERMUDA | BM |
| BRUNEI DARUSSALAM | BN |
| BOLIVIA | BO |
| BRAZIL | BR |
| BAHAMAS | BS |
| BHUTAN | BT |
| BOUVET ISLAND | BV |
| BOTSWANA | BW |
| BELARUS | BY |
| BELIZE | BZ |
| CANADA | CA |
| COCOS (KEELING) ISLANDS | CC |
| CONGO, DEMOCRATIC REPUBLIC OF THE | CD |
| CENTRAL AFRICAN REPUBLIC | CF |
| CONGO, REPUBLIC OF | CG |
| SWITZERLAND | CH |
| COTE D'IVOIRE | CI |
| COOK ISLANDS | CK |
| CHILE | CL |

| Country | Code |
|---|---|
| CAMEROON | CM |
| CHINA | CN |
| COLOMBIA | CO |
| COSTA RICA | CR |
| CUBA | CU |
| CAP VERDE | CV |
| CHRISTMAS ISLAND | CX |
| CYPRUS | CY |
| CZECH REPUBLIC | CZ |
| GERMANY | DE |
| DJIBOUTI | DJ |
| DENMARK | DK |
| DOMINICA | DM |
| DOMINICAN REPUBLIC | DO |
| ALGERIA | DZ |
| ECUADOR | EC |
| ESTONIA | EE |
| EGYPT | EG |
| WESTERN SAHARA | EH |
| ERITREA | ER |
| SPAIN | ES |
| ETHIOPIA | ET |
| FINLAND | FI |

| Country | Code |
|---|---|
| FIJI | FJ |
| FALKLAND ISLANDS (MALVINA) | FK |
| MICRONESIA | FM |
| FAROE ISLANDS | FO |
| FRANCE | FR |
| GABON | GA |
| GRENADA | GD |
| GEORGIA | GE |
| FRENCH GUIANA | GF |
| GUERNSEY | GG |
| GHANA | GH |
| GIBRALTAR | GI |
| GREENLAND | GL |
| GAMBIA | GM |
| GUINEA | GN |
| GUADELOUPE | GP |
| EQUATORIAL GUINEA | GQ |
| GREECE | GR |
| SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS | GS |
| GUATEMALA | GT |
| GUAM | GU |
| GUINEA-BISSAU | GW |
| GUYANA | GY |

| Country | Code |
|---|---|
| HONG KONG | HK |
| HEARD AND MCDONALD ISLANDS | HM |
| HONDURAS | HN |
| CROATIA/HRVATSKA | HR |
| HAITI | HT |
| HUNGARY | HU |
| INDONESIA | ID |
| IRELAND | IE |
| ISRAEL | IL |
| ISLE OF MAN | IM |
| INDIA | IN |
| BRITISH INDIAN OCEAN TERRITORY | IO |
| IRAQ | IQ |
| IRAN (ISLAMIC REPUBLIC OF) | IR |
| ICELAND | IS |
| ITALY | IT |
| JERSEY | JE |
| JAMAICA | JM |
| JORDAN | JO |
| JAPAN | JP |
| KENYA | KE |
| KYRGYZSTAN | KG |
| CAMBODIA | KH |

| Country | Code |
|---|---|
| KIRIBATI | KI |
| COMOROS | KM |
| SAINT KITTS AND NEVIS | KN |
| KOREA, DEMOCRATIC PEOPLE'S REPUBLIC | KP |
| KOREA, REPUBLIC OF | KR |
| KUWAIT | KW |
| CAYMAN ISLANDS | KY |
| KAZAKHSTAN | KZ |
| LAO PEOPLE'S DEMOCRATIC REPUBLIC | LA |
| LEBANON | LB |
| SAINT LUCIA | LC |
| SRI LANKA | LK |
| LIBERIA | LR |
| LESOTHO | LS |
| LITHUANIA | LT |
| LUXEMBOURG | LU |
| LATVIA | LV |
| LIBYAN ARAB JAMAHIRIYA | LY |
| MOROCCO | MA |
| MONACO | MC |
| MOLDOVA | MD |
| MADAGASCAR | MG |
| MARSHALL ISLANDS | MH |

| Country | Code |
|---|---|
| MACEDONIA | MK |
| MALI | ML |
| MYANMAR | MM |
| MONGOLIA | MN |
| MACAU | MO |
| NORTHERN MARIANA ISLANDS | MP |
| MARTINIQUE | MQ |
| MAURITANIA | MR |
| MONTSERRAT | MS |
| MALTA | MT |
| MAURITIUS | MU |
| MALDIVES | MV |
| MALAWI | MW |
| MEXICO | MX |
| MALAYSIA | MY |
| MOZAMBIQUE | MZ |
| NAMIBIA | NA |
| NEW CALEDONIA | NC |
| NIGER | NE |
| NORFOLK ISLAND | NF |
| NIGERIA | NG |
| NICARAGUA | NI |
| NETHERLANDS | NL |

| Country | Code |
|---|---|
| NORWAY | NO |
| NEPAL | NP |
| NAURU | NR |
| NIUE | NU |
| NEW ZEALAND | NZ |
| OMAN | OM |
| PANAMA | PA |
| PERU | PE |
| FRENCH POLYNESIA | PF |
| PAPUA NEW GUINEA | PG |
| PHILIPPINES | PH |
| PAKISTAN | PK |
| POLAND | PL |
| ST PIERRE AND MIQUELON | PM |
| PITCAIRN ISLAND | PN |
| PUERTO RICO | PR |
| PALESTINIAN TERRITORIES | PS |
| PORTUGAL | PT |
| PALAU | PW |
| PARAGUAY | PY |
| QATAR | QA |
| REUNION ISLAND | RE |
| ROMANIA | RO |

| Country | Code |
| --- | --- |
| RUSSIAN FEDERATION | RU |
| RWANDA | RW |
| SAUDI ARABIA | SA |
| SOLOMON ISLANDS | SB |
| SEYCHELLES | SC |
| SUDAN | SD |
| SWEDEN | SE |
| SINGAPORE | SG |
| ST HELENA | SH |
| SLOVENIA | SI |
| SVALBARD AND JAN MAYEN ISLANDS | SJ |
| SLOVAK REPUBLIC | SK |
| SIERRA LEONE | SL |
| SAN MARINO | SM |
| SENEGAL | SN |
| SOMALIA | SO |
| SURINAME | SR |
| SAO TOME AND PRINCIPE | ST |
| EL SALVADOR | SV |
| SYRIAN ARAB REPUBLIC | SY |
| SWAZILAND | SZ |
| TURKS AND CAICOS ISLANDS | TC |
| CHAD | TD |

| Country | Code |
| --- | --- |
| FRENCH SOUTHERN TERRITORIES | TF |
| TOGO | TG |
| THAILAND | TH |
| TAJIKISTAN | TJ |
| TOKELAU | TK |
| TURKMENISTAN | TM |
| TUNISIA | TN |
| TONGA | TO |
| EAST TIMOR | TP |
| TURKEY | TR |
| TRINIDAD AND TOBAGO | TT |
| TUVALU | TV |
| TAIWAN | TW |
| TANZANIA | TZ |
| UKRAINE | UA |
| UGANDA | UG |
| UNITED KINGDOM | UK |
| US MINOR OUTLYING ISLANDS | UM |
| UNITED STATES | US |
| URUGUAY | UY |
| UZBEKISTAN | UZ |
| HOLY SEE (CITY VATICAN STATE) | VA |
| SAINT VINCENT AND THE GRENADINES | VC |

| Country | Code |
|---|---|
| VENEZUELA | VE |
| VIRGIN ISLANDS (BRITISH) | VG |
| VIRGIN ISLANDS (USA) | VI |
| VIETNAM | VN |
| VANUATU | VU |
| WALLIS AND FUTUNA ISLANDS | WF |
| WESTERN SAMOA | WS |
| YEMEN | YE |
| MAYOTTE | YT |
| YUGOSLAVIA | YU |
| SOUTH AFRICA | ZA |
| ZAMBIA | ZM |
| ZIMBABWE | ZW |

# Appendix B: Address validation rules

The following table defines the validation rules that will be applied in the following circumstances:

- For the installation address, if there are >=7 characters in the additional address information field when registering an SGU or SWH

| Address type | Unit type | Unit No. | Street No. | Street Name | Street Type | Town/ Suburb | State | Postcode | Special Address | Other Rules |
|---|---|---|---|---|---|---|---|---|---|---|
| Physical | - | - | - | - | - | X | X | X | X | special address >=7 chars |
| Physical | - | - | - | X | X | X | X | X | X | special address >=7 chars |
| Physical | - | - | X | X | X | X | X | X | X | special address >=7 chars |
| Physical | X | X | - | X | X | X | X | X | X | special address >=7 chars |
| Physical | X | X | X | X | X | X | X | X | X | special address >=7 chars |

The following table defines the address validation rules that will apply in the following circumstances:

- For the installation address, if there are <7 characters in the additional address information field when registering an SGU or SWH
- If the owner address is different to installation address
- Installer address
- Electrician address
- Designer address

**Note that an international address is only applicable for owner details.**

| Address type | Postal Delivery type | Postal delivery number | Unit type | Unit No. | Street No. | Street Name | Street Type | Town/ Suburb | State | Postcode | Country |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Physical | - | - | - | - | X | X | X | X | X | X | Aus |
| Physical | - | - | X | X | - | X | X | X | X | X | Aus |
| Physical | - | - | X | X | X | X | X | X | X | X | Aus |
| Physical | - | - | - | - | X | X | X | X | - | X | Other |

| Address type | Postal Delivery type | Postal delivery number | Unit type | Unit No. | Street No. | Street Name | Street Type | Town/ Suburb | State | Postcode | Country |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Physical** | - | - | X | X | - | X | X | X | - | X | Other |
| **Physical** | - | - | X | X | X | X | X | X | - | X | Other |
| **Postal** | X | X | - | - | - | - | - | X | X | X | Aus |
| **Postal** | X | X | - | - | - | - | - | X | - | X | Other |