



Australian Government
Clean Energy Regulator

**CLEAN
ENERGY
REGULATOR**

Electricity Metering Data Matching Protocol

**Small-Scale Renewable Energy Scheme
Emissions Reduction Fund**

Version 1.0 10 May 2017

Electricity Metering Data Matching Protocol

Data matching guidelines

The Clean Energy Regulator (the agency) voluntarily complies with the *Guidelines on Data Matching in Australian Government Administration* (2014) (the Guidelines) published by the Office of the Australian Information Commissioner (OAIC).

This electricity meter data matching protocol is prepared and published in accordance with these guidelines.

Overview

The electricity metering data matching program has been developed to enable the agency to meet its legislative functions under the *Renewable Energy (Electricity) Act 2001* (REE Act), and the *Carbon Credits (Carbon Farming Initiative) Act 2011* (CFI Act). Data will be collected under a memorandum of understanding and subsidiary legislative instruments with the Australian Energy Market Operator (AEMO). The agency will make requests for specific data from AEMO and match this data provided against agency records to identify organisations or individuals that may not be meeting their obligations under the Acts that the agency administers.

With respect to the REE Act and the CFI Act, the electricity metering data matching program will allow the agency to:

- Maintain community confidence in the integrity of the Small-Scale Renewable Energy Scheme (SRES), which aims to encourage the additional generation of renewable energy through financial incentives.
- Maintain community confidence in the integrity of the CFI Act, which underpins the Emissions Reduction Fund (ERF), which is a key mechanism for the Australian Government to meet its international carbon reduction targets.
- Reduce the need to seek other forms of data to provide community confidence in the SRES and ERF.
- Identify non-compliance and fraud under the REE Act and CFI Act, regarding claims made by registered agents, registered persons or participants for Small-Scale Technology Certificates (STCs) or Australian Carbon Credit Units (ACCUs) to which they are not entitled to.
- Gain insights from the data that may help to develop and implement options to improve voluntary compliance and participant behaviours; which may include educational or compliance activities.
- Obtain intelligence to increase the agency's understanding of the behaviour and compliance profiles of individuals and organisations participating in the SRES or ERF.

Purpose and objectives

Purpose

The purpose of the electricity metering data matching program is to enable the agency to meet its legislative functions under the REE Act and CFI Act in an efficient and effective manner. This will allow the agency to:

- ensure that STCs validated under the SRES are credible, and
- ensure that the integrity of the scheme is not undermined by registered persons seeking to apply for STCs for the installation of systems that are not eligible, or do not exist.

The agency is seeking to obtain external data to cross-reference with its internal data to identify any anomalies, relevant cases for administrative action, including compliance and educational strategies.

This program will assist in protecting the integrity of the schemes by ensuring liable entities use Renewable Energy Certificates (RECs) representing genuine renewable energy to acquit their liabilities and that abatement achieved under the ERF is credible and that the integrity of the ERF is not undermined by operators seeking abatement for activities that are not eligible.

Objectives

The objectives of the electricity metering data matching program are to:

- Administer legislative requirements under the REE Act and the CFI Act in an efficient and effective manner.
- Identify non-compliance and fraud under the REE Act, regarding claims made by registered agents or registered persons for Renewable Energy Certificates to which they are not entitled.
- Identify project participants seeking to make claims for Emission Reduction Fund project activities to which they are not entitled.
- Gain insights from the data that may help to develop and implement treatment strategies to improve voluntary compliance; which may include educational or compliance activities as appropriate.
- Obtain intelligence to increase the agency's understanding of the behaviour and compliance profiles of individuals and organisations participating in the SRES and ERF.

Agencies and entities involved

Matching and primary user agency

The agency is the matching agency and will generally be the sole user. In very limited and specific circumstances, as contained in Part 3 of the *Clean Energy Regulator Act 2011* (CER Act) the agency may provide individual records to other agencies, including law enforcement agencies.

The data matching program will be run on secure agency computer systems and in accordance with approved policies and procedures.

Source entities

The agency has established a memorandum of understanding with AEMO to share electricity meter information. AEMO manages the National Electricity Market (NEM) which is the electricity grid for the main electricity network connecting most of SA, NSW, Vic, Tas, ACT and Qld. As part of managing the NEM, AEMO maintains a database containing information about the various aspects of the NEM. Part of this dataset includes network tariff codes, which indicate whether a photovoltaic (PV) system is connected to the grid. Additionally, AEMO has meter data details regarding the electricity consumption and generation by end user.

Data issues

Data elements

AEMO has provided the agency with address data, metered electricity consumption data and tariff data across the NEM. This information provides the means for the agency to verify installation of renewable

energy, energy efficiency and fuel switching activities, as well as confirming eligible activities, and possible ineligible claims.

The following data items will be transferred from AEMO to the agency:

- National Metering Identifier (NMI)
- Network Tariff Code
- Consumer Classification Code.
- Electricity export data, and
- Electricity consumption data (quarterly for older meters, half hourly for interval meters).

Number of records

AEMO have records on 1.7 million NMIs in their dataset. However, the agency will only be requesting data that relates to its legislative functions under the REE Act and CFI Act. AEMO will provide the agency with updates of their data set on regular basis.

Data quality

AEMO maintains the procedures for the allocation of the NMIs, which provides a unique identifier for each connection point within the NEM. It provides an index against which other essential data can be managed and is crucial to the accurate management of customer registration, customer transfer, connection point change control and data aggregation and transfer. As such, the agency expects the data acquired will be of high quality, as the data being obtained is supported by thorough processes and provide the basis of the NEM.

When the data is received it is loaded onto a secure database system within the agency. The data will be put through quality assurance processes to ensure it conforms to requirements before matching is undertaken.

Data integrity

The address fields in the NEM and the agency's data sets are used as the initial identifier to determine a match between datasets. Address fields from the data sets are passed through a sophisticated geocoding system to produce a reference address location, with a matching score, from both systems. This process overcomes the data integrity problems associated with different address data entry conventions in use in the different source systems. It is possible that data fields, other than supplied address data, could be used to ensure accurate matches in the future.

A range of other data elements from the AEMO data set are then used to identify anomalies associated with falsely claiming an entitlement under the SRES and the ERF. This includes:

- the presence of an energy export flag, which can indicate electricity generated from a renewable energy device being exported to the grid, and
- variations in electricity consumption from the grid over time, which indicates whether there has been a change in the amount of energy being supplied to a household or organisation from the grid following the installation of a renewable energy device, energy efficiency improvement or fuel source switch.

Where administrative action is proposed, additional checks will take place to ensure the correct entity has been identified. The entities will be provided with the opportunity to verify the accuracy of the information before any action is taken in accordance with the agencies compliance, education and enforcement policy.

Data security

The agency's staff are subject to the strict secrecy and privacy provisions contained in Part 3 of the CER Act and include terms of imprisonment in cases of serious contravention of these provisions.

All of the agency's computer systems are strictly controlled, with features including:

- system access controls and security groupings
- login identification codes and password protection, and
- full audit trails of data files and system accesses.

A purpose built secure database system has been developed to support this data matching program, with unique system access controls. Having a compartmentalised database will prevent the use of information received from partner agencies for any other purpose.

The agency will utilise a secure data transfer facility to obtain the data from AEMO.

Discrepancy matching

Matching process

The information matching process begins with establishing a match on address fields, following a process to standardise the address from each data source using a reference Australian address database. A range of business rules will then be applied to identify whether a small scale renewable energy device, matching the capacity of the system being claimed for under the small scale renewable energy scheme, has been installed at that address, based on the information collected by AEMO to support their role in maintaining the National Energy Market. For the ERF and AEMO data-matching, a range of business rules will be applied to identify if the claimed activity appears to result in a measurable change in electricity consumption.

Records with an address match and that suggest an anomaly in the electricity consumption or generation profile will be loaded onto the agency's secure computer systems where regulatory officers will use standard techniques to verify the findings, using a range of additional information. Cases selected for further administrative action will be loaded to our case management systems for allocation to compliance staff.

Unmatched data, and matched data that proves to be invalid, will be analysed to refine business rules to increase precision in the matching process and cases selected for verification and case management.

Quality assurance

Quality assurance processes are integrated into the agency's processes and computer systems and are applied throughout the data matching cycle.

These assurance processes include:

- establishing a project under the agency's Project Governance Framework to manage the Agency Data Transfer Project
- obtaining regular assurance from reference groups, ongoing and final approval from the relevant senior executive forum, including the Chief Executive Officer, to provide oversight of the project.
- notifying the OAIC of our intention to undertake the data matching program
- maintaining access management logs recording details of who has access to the data and how it is used

- standard operating procedures and work instructions to support regulatory officers and compliance staff in relation to identifying and verifying matches and escalating cases for administrative action.
- reviewing of case selection processes and case plans by senior officers prior to client contact, and
- on-going reviews of cases by subject matter technical experts at key points during the lifecycle of a case.

These processes ensure data is collected and used in accordance with the agency's information management policies and principles, and complies with the OAIC's data matching guidelines.

Previous programs

The agency has not undertaken a data matching program in this area previously.

Action resulting from the program

This program will be used to identify registered persons and registered agents (which may include both individuals and businesses), as defined under the REE Act, that may have received, or have submitted a claim for, small-scale technology certificates that resulted in the improper creation of certificates under the REE Act. It will also be used to identify individuals and businesses that may have received, or have submitted a claim, for ACCUs for abatement activities that are not permitted under the CFI Act. These are an offence covered by a civil penalty provision, but could also result in fraud offences under the *Criminal Code Act 1995*. Actions resulting from this program for conduct contrary to this provision are usually aimed at registered agents or participants, but may also include other registered persons.

Prior to taking any administrative action as a result of the data matching programs individuals and other entities are given at least 14 days to respond to any information identified as a result of the matching process. This time period is considered reasonable to request for further information under both schemes and considering scheme participants, registered persons and registered agents are required to maintain relevant records. The process is followed by a *Notice of intention to refuse/suspend* (if the agency does not agree with the respondent's submission) which provides a further 14 days before a refusal/suspension notice is issued. The data will also be used to gain insights to develop and implement treatment strategies to improve voluntary compliance; which may include educational or compliance activities as appropriate. Additionally, analysis of the data and existing agency data holdings will increase the agency's understanding of the behaviour and compliance profiles of individuals and organisations participating in the SRES and ERF.

It is important to note that scheme participants under the *CFI Act*, or registered persons or registered agents under the REE Act, and not householders or commercial entities for which they may be undertaking an activity, are responsible for declarations made to the agency, regarding compliance with program requirements. To this end, compliance requirements rest with the scheme participant and in general administrative actions will be taken up with them. Personal information obtained from third parties, such as details of a householder and their electricity metering data, will not be provided to the scheme participant when making a notification.

Scheme participants identified as being non-compliant will be referred to the agency's relevant compliance area(s) for action under the REE Act or the CFI Act as appropriate.

In cases where scheme participants have failed to meet their obligations under the *REE Act or CFI Act*, after being reminded of them, the agency may use a number of strategies to rectify non-compliance, as appropriate.

This may include:

- restrictions on Registry Accounts and Participants

- Increasing the risk profiles for participants under the SRES; and
- prosecution.

The agency's approach to compliance and enforcement is outlined in its [Compliance, education and enforcement policy](#), and its current compliance priorities are outlined in its Compliance Plan 2016-17.

The agency may also use the outcomes of this program to build an understanding of the compliance profile of the scheme participants under both schemes, and this may inform new and appropriate education and compliance strategies for certain sectors.

Time limits applying to the conduct of the program

It is anticipated that this data matching program will need to continue for the life of both schemes, to enable the agency to identify improperly created certificates claimed or avoid crediting emissions twice. This identification of improper creation is relevant to both the initial assessment of applications, future review of applications and ongoing analytics and compliance activities. Therefore, the agency will need to retain data obtained from AEMO; with regular updates to ensure new electricity generation units added to the NEM are identified.

When data is no longer required, such as following closure of the agency schemes, it will be destroyed in accordance with General Disposal Authority 24 and/or the Records Disposal Authority 1194 as applicable. All data to be destroyed will be handled securely under the supervision of the agency's IT Security Advisor.

The data matching program will be reviewed every two years following commencement, or following relevant legislative changes to the *REE Act* or *CFI Act*.

Public notice of the program

The agency will publish a public notice in the Australian Government Gazette Notices. The agency will provide a copy of the notice to each of the source agencies. A copy of the notice will be provided to the OAIC.

A copy of the notice is at Appendix A.

The agency will publish a copy of this data matching program protocol on its website once the gazette notice has been published. It can be accessed from www.cleanenergyregulator.gov.au.

AEMO will receive this notice to enable them to publish of their role in this data matching program on their website.

Privacy complaints

If an individual is not satisfied with how the agency has collected, held, used or disclosed its personal information, they can make a formal complaint.

A complaint can be lodged by:

- phoning our general enquiries line on 1300 553 542 within Australia
- If you are deaf, or have a hearing impairment or speech impairment, contact us through the National Relay Service.
 - » Phone: 133 677 TTY Service [TTY/Voice]
 - » Phone: 1300 555 727 [Speak and Listen (SSR)]

- Write to the Privacy Contact officer CER-Privacy@cleanenergyregulator.gov.au
- Writing to us by post:

Clean Energy Regulator Privacy Contact Officer
GPO Box 621
Canberra ACT 2601

For more information, please refer to the agency's privacy and complaints handling policies¹.

Relationship to lawful functions

The agency has the general administration of the REE Act and CFI Act.

Section 24A of the REE Act provides that a person must not create a certificate if the person is not entitled to create a certificate, or aid or abet this process. Section 24B of the REE Act provides that a person must not provide false and misleading information to another person that results in the improper creation of certificates, or aid or abet this process. Section 88 of the CFI Act details similar requirements for declarations under the ERF.

Compliance with these obligations is critical for Australia to meet the objects of the REE Act and CFI Act, and for Australia to meet its 2020 target of 20 per cent renewable energy. A failure to detect non-compliance and address non-compliant behaviour has the potential to undermine community confidence in the integrity of both schemes, and the government's ability to meet its renewable energy target and carbon reduction targets.

This data matching program is one of the strategies used to identify and respond to non-compliant behaviour. Data matching programs also provide a degree of assurance that the scheme participants are meeting their obligations.

¹ Agency's complaints handling policy see <http://www.cleanenergyregulator.gov.au/About/complaints-handling-policy>

Legal authority

Clean Energy Regulator legislation

The data has been provided under s125 of the REE Act.

The disclosure is authorised under this legislation to enable the agency to meet its functions and powers. The agency will use the information to administer the REE Act and CFI Act. This information meets the definition of “protected information” as defined under s4 of the CER Act. Part 3 of the CER Act provides secrecy provisions governing the disclosure and use of protected information. Part 3 also applies penalties for the disclosure and use of protected information, but exceptions allow for disclosure and use in certain circumstances. This includes the disclosure and use for the purposes of a climate change law (which includes the administration of the Act) under s44 of the CER Act. Disclosure for the purposes of law enforcement (s55 of the CER Act) provides an exception to facilitate the disclosure of protected information where reasonably necessary for the enforcement of the criminal law, a law enforcing a pecuniary penalty or the protection of the public revenue.

Privacy Act

Data will only be used within the limits on the use of personal information imposed by Australian Privacy Principle 6 (APP6) contained in Schedule 1 of the *Privacy Act 1988* and in particular:

- APP6.2(b) – the use of the information is permitted by an Australian Law, and
- APP6.2(e) – the use is necessary for the agency enforcement related activities

Alternative methods

The agency is limited in alternative cost effective methods that could be used to identify non-compliance.

This data matching program will allow the agency to identify scheme participants that may be operating outside the requirements of the REE Act and CFI Act.

Data matching is an effective and efficient method of examining large volumes of records of thousands of scheme participant records regarding their activities to ensure compliance with the REE Act or CFI Act obligations that would otherwise be a resource intensive exercise examining records individually and making individual requests for additional data.

Costs and benefits

Costs

The costs of the electricity metering data matching program are expected to be minimal in relation to the resulting benefits. The costs include the agency’s resources to:

- manage the delivery of the function, including Information and Communication Technology capabilities
- provide data analyst resources to identify instances of non-compliance
- provide compliance resources to manage casework and educational activities
- provide governance resources to ensure that the data matching guidelines and Privacy Act 1988 are in compliance

- undertake quality assurance work to ensure the rigour of the work undertaken by analysts and compliance staff, and
- arrange storage of the data.

Benefits

Benefits from conducting this data matching program include:

- maintaining community confidence in the integrity of the RET and ERF
- promoting voluntary compliance with the both schemes, through the creation of a level playing field, and maintaining community confidence in the agency's capacity to fairly administer the scheme and deal with non-compliant operators
- reducing staffing costs as current costly administrative compliance checks are reduced
- reduced regulatory burden on scheme applicants as requests for additional data are reduced
- increasing the likelihood that valid certificates are issued thereby reducing the risk of fraudulent certificate creation, and
- enabling enforcement activity to prevent improper creation of certificates.

Monetary Values

A fully monetised cost benefit analysis has not been included with this protocol. This is because there are limitations in estimating the benefits associated with compliance with each scheme in monetary terms. For the ERF, the scheme is in its infancy (due to long contract periods) and measures of the cost of non-compliance abatement cannot be estimated at this time. For the SRES, the costs associated with the creation and surrender of certificates are passed to liable entities and this can affect the cost at which they sell electricity. This can mean that costs are passed through to businesses and homeowners.

There are also intangible benefits associated with the data matching protocol which cannot be easily monetarised, including:

- Introduction of deterrence measures against non-compliance.
- Ensuring compliance with our legislation.
- Meeting Australian government expectations and international commitments to reduce carbon emissions and renewable energy targets.

Table 2 – consistency with the guidelines

This section outlines how the agency is consistent with the requirements of the OAIC’s Guidelines on data matching in Australian government administration (2014)

Paragraph/guideline	Action taken/to be taken
Paragraph 6 - Status of the guidelines	The agency is committed to complying with the OAIC’s Guidelines on Data Matching in Australian Government Administration 2014.
Guideline 1 - application of the guide	<p>The agency applies the guidelines to all data matching programs where it is anticipated the program will include records of 5,000 or more individuals or entities.</p> <p>The agency recognises that programs with multiple data sources but common objectives and algorithms will be treated as a single data matching program.</p>
Guideline 2 - considerations before conducting a data matching program	<p>The agency conducts a cost-benefit analysis and considers alternate methods prior to proposing to conduct a data matching program.</p> <p>Further, the agency has rigorous governance arrangements, processes and system controls in place to protect the privacy of individuals.</p>
Guideline 3 - prepare a program protocol	<p>Prior to conducting a data matching program, the agency prepares a data matching program protocol, submits this to the OAIC and makes a copy publicly available on the agency’s website.</p> <p>When elements of a data matching program change, the program is amended and a copy of the amended protocol provided to the OAIC and republished on its website.</p>
Guideline 4 - technical standards report	Documentation is prepared and maintained so as to satisfy the requirements of a technical standards report.
Guideline 5 - notify the public	<p>The agency publishes notification of its intention to undertake data matching program in the Australian government gazette notices prior to the commencement of the program.</p> <p>This notice includes all of the requirements outlined in the guidelines.</p> <p>Notification of the program is also published on the agency’s website and data providers are advised they can advertise their participation in the data matching program.</p>
Guideline 6 - notify individuals of proposed administrative action	<p>Prior to taking any administrative action as a result of the data matching programs individuals and other entities are given at least 14 days to respond to any anomalies identified as a result of the matching process. Personal information obtained from third parties, such as details of a householder and electricity metering data, will not be provided to the scheme participant when making a notification.</p>

Paragraph/guideline	Action taken/to be taken
Guideline 7 - destroy information that is no longer required	The agency will destroy records received from source agencies in accordance with relevant procedures when the data is no longer required.
Guideline 8 - do not create new registers, datasets or databases	The agency does not create new permanent registers or databases using data obtained in the course of a data matching program.
Guideline 9 - data matching program evaluations	Programs are regularly evaluated and always within 3 years after the commencement of the data matching program. These evaluations are provided to the OAIC.
Guideline 10 - variations to guideline requirements	When the agency intends to vary from the requirements of the guidelines it seeks the approval of the OAIC and provides documentation to support the variance.
Guideline 11 - Data matching with entities other than agencies	The agency undertakes its own data matching programs. In the event that the agency contracted with an entity other than an agency, they will seek to have the entity adopt these Guidelines.
Guideline 12 - data matching with exempt agencies	This data matching program does not involve agencies that are exempt from the operations of the <i>Privacy Act 1988</i> under section 7 of that Act.
Guideline 13 - enable review by the OAIC	The agency will enable the OAIC to review its data matching activities and processes.

Abbreviations

Term	Meaning
ACCUs	Australian Carbon Credit Units
AEMO	Australian Energy Market Operator
ERF	Emissions Reduction Fund
NEM	National Electricity Market
OAIC	Office of the Australian Information Commissioner
SRES	Small-Scale Renewable Energy Scheme
STCs	Small-scale Technology Certificates

Appendix A – Gazette Notice

Chair of the Clean Energy Regulator

Notice of the Clean Energy Regulator electricity metering data matching program

The Clean Energy Regulator has a signed Memorandum of Understanding with the Australian Energy Market Operator.

The Clean Energy Regulator will make filtered data requests and collect selected records from databases maintained by the Australian Energy Market Operator, with respect to location address data, metered electricity consumption data and tariff data across the National Energy Market.

Categories of individuals potentially impacted include:

- Agents registered with the agency for the purpose of creating Small-Scale Technology Certificates.
- Households where a photovoltaic system or solar water heater has been installed and verified as eligible for the creation of small-scale technology certificates.
- Participants in the Australian Government's Emissions Reduction Fund (Participants).

This acquired data will be electronically matched with data obtained by the agency under the *Renewable Energy (Electricity) Act 2000* to administer the Small-Scale Renewable Energy Scheme and the *Carbon Credits (Carbon Farming Initiative) Act 2011* to verify the proper creation of certificates and issuance of Australian Carbon Credit Units.

This program is called the Clean Energy Regulator electricity metering data matching program and it will enable the agency to:

- Identify non-compliance and fraud under the *Renewable Energy (Electricity) Act 2000*, with respect to claims made by registered agents or registered persons for small-scale technology certificates to which they are not entitled.
- Identify non-compliance and fraud under the *Carbon Credits (Carbon Farming Initiative) Act 2011*, with respect to claims made by Participants to which they are not entitled.
- Gain insights from the data that may help to develop and implement treatment strategies to improve voluntary compliance; which may include educational or compliance activities as appropriate.
- Obtain intelligence to increase the Clean Energy Regulator's understanding of the behaviour and compliance profiles of individuals and organisations participating in the scheme.

A document describing this program has been prepared and lodged with the Office of the Australian Information Commissioner. A copy of this document is available on the Clean Energy Regulator's website or by emailing SpecialPurposeDataSteward@cleanenergyregulator.gov.au with reference to the electricity metering data matching program.

The Clean Energy Regulator complies with the Office of the Australian Information Commissioner's *Guidelines on Data Matching in Australian Government Administration (2014)*, which includes standards for data matching to protect the privacy of individuals. A full copy of the Clean Energy Regulator's privacy policy can be assessed at <http://www.cleanenergyregulator.gov.au/About/Policies-and-publications/Condensed-privacy-policy>.