Clean Energy Regulator Submission to the Productivity Commission Data Availability and Use Inquiry

Introduction

The Australian Government Clean Energy Regulator would like to submit the following to inform the Productivity Commission's inquiry into data availability and use. The submission provides information on the key datasets held by the Clean Energy Regulator, the legislation that governs the disclosure of the datasets, how the datasets are being used, and the opportunities being explored by the Clean Energy Regulator to increase the availability and use of its data.

As an Australian Government agency, the Clean Energy Regulator is committed to implementing the *Australian Government Public Data Policy Statement* (2015), which aims to optimise the use and reuse of public data; to release non-sensitive data as open by default; and to collaborate with the private and research sectors to extend the value of public data for the benefit of the Australian public. The data held by the Clean Energy Regulator is a valuable national resource that can increasingly be used to inform Australia's effort to accelerate carbon abatement.

As noted in the *Public Sector Data Management Report* (2015) there is scope for public sector data to be better used to achieve efficiencies for government, to foster the digital economy, and to be helpful outside of government to lift productivity and growth. There are broad community and economic benefits to using data to underpin evidence-based policy, to inform consumer choice and to develop new business opportunities and business models.

Much of the data the Clean Energy Regulator holds is either commercially sensitive or relates to individuals, and the agency is governed by secrecy and privacy legislation in relation to that information. Maintaining the confidentiality and integrity of the data is a high priority for the Clean Energy Regulator.

Role of the Clean Energy Regulator

The Clean Energy Regulator is an independent statutory authority established by the *Clean Energy Regulator Act 2011*. It sits within the Environment and Energy portfolio of the Australian Government. The purpose of the Clean Energy Regulator is to accelerate carbon abatement for Australia.

The Clean Energy Regulator administers schemes legislated by the Australian Government for measuring, managing, reducing or offsetting Australia's carbon emissions. The agency has administrative responsibilities for the:

1. National Greenhouse and Energy Reporting Scheme and the Safeguard Mechanism, under the *National Greenhouse and Energy Reporting Act 2007*

2. Emissions Reduction Fund, under the *Carbon Credits (Carbon Farming Initiative) Act 2011*

3. Renewable Energy Target, under the *Renewable Energy (Electricity) Act 2000*, and

4. Australian National Registry of Emissions Units, under the *Australian National Registry of Emissions Units Act 2011.*

Datasets held by the Clean Energy Regulator

As part of its administration of these schemes, the Clean Energy Regulator collects a wide variety of information and data from Australian businesses and individuals. These high-value and commercially sensitive datasets are maintained in-house on the Clean Energy Regulator's secure ICT systems.

1. National Greenhouse and Energy Reporting Scheme

The National Greenhouse and Energy Reporting (NGER) scheme is a single national framework for the reporting and dissemination of information related to greenhouse gas emissions, energy consumption and energy production of corporations.

The first financial year NGER scheme data was collected was 2008-09. The NGER dataset comprises data on direct (scope 1) and indirect (scope 2) emissions and energy consumed and produced, from approximately 800 corporations and 9500 facilities and facility aggregates. It includes information on individual fuel and energy commodity type, the source of emissions and the type of greenhouse gas emitted. Reporters are also required to provide location information for each facility and general identifying information for the companies within their corporate structure.

Data collected under the scheme is used to inform government policy making and the Australian public, to assist government programs and activities, and to avoid the need for state and territory governments to have similar reporting requirements.

NGER data is also the pre-eminent dataset to meet Australia's international emissions and energy reporting obligations. NGER data contributes approximately 60 per cent of the emissions data for the National Greenhouse Gas Inventory Report. The National Greenhouse Gas Inventory Report is part of the National Greenhouse Accounts produced by the Department of the Environment and Energy which meets Australia's reporting commitments under the United Nations Framework Convention on Climate Change. NGER data also contributes around 80 per cent of the energy data for the Australian Energy Statistics. The Australian Energy Statistics is the authoritative and official source of energy data for Australia and forms the basis of Australia's reporting obligations to the International Energy Agency.

2. Emissions Reduction Fund

The Emissions Reduction Fund is a voluntary scheme that provides financial incentives for a range of organisations and individuals to adopt new practices and technologies to reduce their emissions.

Data collection for the Emissions Reduction Fund commenced in 2014, while the Carbon Farming Initiative scheme on which it is based commenced in 2011. The dataset contains information about projects registered under the *Carbon Credits (Carbon Farming Initiative) Act 2011* and the activities of those projects to achieve carbon abatement, whether or not projects are connected to a contract with the Australian Government for delivering carbon abatement, the name of the carbon abatement contractor, the duration of the contract, the number of carbon credit units contracted to sell to the Australian Government, the number of carbon credit units that that have been sold to the Australian Government under a contract, and the location of projects.

3. Renewable Energy Target

The Renewable Energy Target is a scheme designed to reduce emissions of greenhouse gases in the electricity sector and encourage the additional generation of electricity from sustainable and renewable sources.

Data collection for the Renewable Energy Target commenced in 2001 as the Mandatory Renewable Energy Target and was expanded into the Renewable Energy Target in 2009. The dataset contains information about renewable energy certificates, installations of solar water heaters and small generation units (photovoltaic, wind, hydro), power stations (location, generating capacity, energy source, megawatt hours of renewable electricity generated and other details), and liable entities (relevant acquisitions of electricity in megawatt hours and other details).

4. Australian National Registry of Emissions Units

The Australian National Registry of Emissions Units is a secure electronic system designed to track the location and ownership of Australian carbon credit units (ACCUs) issued under the Emissions Reduction Fund, and emissions units issued under the Kyoto Protocol under the *Australian National Registry of Emissions Units Act 2011*.

The dataset contains information about accounts and the authorised representatives who manage those accounts. It also provides information about unit issuances, and domestic, international, cancellation, relinquishment and delivery transfers.

Current uses of the Clean Energy Regulator's Data

1. Legislation governing the availability and use of the datasets

The Clean Energy Regulator's legislation governs how the information and data collected by the agency can be disclosed. These secrecy provisions are outlined in Part 3 of the *Clean Energy Regulator Act 2011*. For data collected prior to the commencement of the Clean Energy Regulator on 2 April 2012, the legislative secrecy provisions in existence at that time continue to apply. The disclosure of data regarding specific schemes is also subject to additional prescriptions specified in the relevant legislation. These legislative requirements are outlined at **Attachment 1**.

The legislation only permits the Clean Energy Regulator to share or publish information in specified circumstances. For example, for information that we received after 2012 we can share disaggregated data with partner government agencies, and can also publish aggregated statistics and summaries that are not likely to enable the identification of individuals (section 54 of the *Clean Energy Regulator Act 2011*). The Clean Energy Regulator is committed to protecting reporters' commercially sensitive information where this is a genuine concern.

2. Data sharing with other government agencies

The Clean Energy Regulator's data is extensively shared with other government agencies to inform a wide range of policy, regulatory and reporting purposes.

Currently, NGER data is shared with 13 Australian Government, state or territory government agencies. Direct access to the data is provided through an online portal via SQL based reports with exportable files. Regular contact with data users occurs to discuss the datasets. For example, the Clean Energy Regulator holds quarterly meetings with government agencies to discuss the NGER dataset. NGER data has also been used extensively to inform mitigation strategies during the last 10 years. Its usefulness for informing policy has increased as the size and utility of the NGER dataset has grown.

Clean Energy Regulator data is a key input to reports and analyses completed by government agencies. For example, NGER data informs the following national documents:

- National Greenhouse Gas Inventory Report
- Australian Energy Statistics and Australian Energy Update
- Energy in Australia, and
- Energy Account Australia.

Emissions Reduction Fund data is also shared with the Department of the Environment and Energy to inform policy and method development for the Emissions Reduction Fund Scheme and to inform the Minister on scheme performance.

The Clean Energy Regulator works with a number of regulatory partners to assist them to perform their responsibilities which often complement those of the Clean Energy Regulator. These relationships are governed by a number of Memoranda of Understanding and enabled by the disclosure provisions under the *Clean Energy Regulator Act 2011*. The Clean Energy Regulator provides a subset of transaction data from the Australian National Registry of Emissions Units to the Australian Securities and Investments Commission to

support their role in monitoring the integrity of the market in Australian Carbon Credit Units, which are financial products under section 764A of the *Corporations Act 2001*. The Clean Energy Regulator also has a similar arrangement with the Australian Transaction Reports and Analysis Centre to support their role in monitoring compliance with requirements under the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* and the *Financial Transaction Reports Act 1988*.

Data is also provided to the other areas of the Australian Government to monitor progress with the Renewable Energy Target. Information published on renewable generation and projects under development underpin assessments of progress to meeting the 2020 RET target.

A range of information is also shared between the Clean Energy Regulator and the Australian Energy Market Operator (AEMO), such as small and large scale Renewable Energy Target data, to help improve the quality of both agencies' datasets.

3. Publication of data

The Clean Energy Regulator publishes a wide range of information, where required or permitted by the legislation. A range of registered corporation energy and emissions information and power station information is published under the NGER scheme. Information relating to facilities that are covered by the safeguard mechanism will be progressively published, with publication expected to commence in early August 2016. Additionally, details of Emissions Reduction Fund participants and projects and aggregated information relating to the Renewable Energy Target scheme are also published, for example in the yearly Renewable Energy Target Administrative Report and Annual Statement. Details of the information on the data that is published by the Clean Energy Regulator is at **Attachment 2**.

Emissions Reduction Fund data is published through the Emissions Reduction Fund project register, Emissions Reduction Fund project map, Australian carbon credit unit quarterly report, auction outcomes, and the carbon abatement contract register.

Opportunities to increase the availability and use of Clean Energy Regulator data

In line with the *Australian Government Public Data Policy,* the Clean Energy Regulator is working towards making more of its data publicly available within the limits of its secrecy and privacy obligations.

The Clean Energy Regulator has commenced a pilot work programme to increase the public availability and use of the NGER dataset. Two key aspects are to increase the amount of aggregate information that is published, and to link NGER data with other government datasets.

It is expected that increasing levels of aggregated NGER statistics and summaries will be published on the Clean Energy Regulator website, which will be linked to data.gov.au. Though the datasets will be anonymised, it will represent an increase in the current amount of NGER data that is made publicly available.

The Clean Energy Regulator is working with the Australian Renewable Energy Agency and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to trial the inclusion of anonymised spatial NGER data in the Australian Renewable Energy Mapping Infrastructure (AREMI) National Map. The national map is a tool to share energy use and spatial data with the renewable energy industry. Renewables data from other government agencies, including the Bureau of Meteorology and Geoscience Australia, are already included. Including NGER data could potentially help renewable energy providers to identify business opportunities for renewable energy in Australia by identifying locations where there would be the greatest commercial and community benefit from the investment. It may even assist in preparing business cases and accessing financing.

The Clean Energy Regulator is also exploring linking NGER data with other government datasets to leverage the disaggregated detail of the rich dataset while still preserving confidentiality. If linked with other disaggregated datasets, aggregated anonymised information could be made available to government agencies for policy purposes and to researchers that links emissions and energy use with other variables

such as financial and economic performance. Such analysis could lead to additional insights about greenhouse gas emissions, energy consumption and energy production data, and how this information relates to other aspects of the economy. Ultimately this information could assist the Clean Energy Regulator and other agencies to accelerate carbon abatement and increase energy productivity.

Opportunities being explored include:

- **Expanded Analytical Business Longitudinal Database (EABLD):** EABLD is intended to be an enduring firm-level statistical asset that will increase the capacity of the research community to undertake firm level analysis of micro-economic drivers of performance, competitiveness, productivity and improve the evidence base for policy development and evaluation, leading to more targeted expenditure of government funds. EABLD includes Australian Taxation Office data and Australian Bureau of Statistics (ABS) survey data for all active businesses in the Australian economy from 2001-02. Integrating NGER data into EABLD could make it possible to assess the effectiveness of energy efficiency policies.

- **Energy Use Data Model:** The Energy Use Data Model is a new major project being led by CSIRO that will see a variety of energy data linked and presented via a publicly available platform to enable forecasting of Australian energy behaviour. It may be appropriate for Clean Energy Regulator data to be included in the model.

Options to increase availability and use of government data

The Clean Energy Regulator has identified two main options to improve data availability and access.

1. Common access framework

The Department of Prime Minister and Cabinet's 2015 public sector roadmap map recommended establishing a trusted access model for sharing integrated data. The ABS has adopted a Trusted Access Model as part of working to increase access to disaggregated data while preserving data confidentiality. This has been adapted from international best practice, using the Five Safes Framework for the assessment of disclosure risk. Such an approach is expected to facilitate collaboration with the private and research sectors and should extend the value of ABS data. The key implementation of the Trusted Access Model in the ABS is the ABS Datalab, which is an interactive data analysis solution available for high-end data users who want to view and use ABS microdata and de-identified unit records.

The Clean Energy Regulator is currently investigating whether it may be appropriate to adopt elements of this model for our own data disclosure. If a similar approach was taken by other government agencies, it could facilitate increasing the use and availability of the data managed by those agencies. Under the Trusted Access Model, controls can be put in place to appropriately safeguard confidential information through implementing the Five Safes Framework.

2. Simplification of legal provisions controlling data access and disclosure

Currently, Australian Government agencies have their own specific secrecy provisions within which they must operate, which means that there are significant differences in how secrecy is managed between agencies. These differences often result in unnecessary inconsistencies and complexity which can be a barrier to inter-agency information sharing.

Scope potentially exists to introduce a more common framework for secrecy provisions among Australian Government agencies to reduce complexity and administrative burden. This could be similar to the standardised framework for Australian Government agencies' monitoring, investigative, and enforcement powers, which was introduced under the *Regulatory Powers (Standard Provisions) Act 2014.*

When considering how to increase availability and use of government data, the importance of maintaining protections for commercially sensitive information must be taken into account. The Productivity Commission is well placed to consider the appropriate balance between the public interest in increasing access to Australian Government data with commercial confidentiality concerns.

Legislative requirements about the publication and disclosure of Clean Energy Regulator data

Part 3 of the *Clean Energy Regulator Act 2011* relates to the disclosure of protected information. Protected information is information that relates to the affairs of a person other than an official of the Regulator and that was obtained after the commencement of the Clean Energy Regulator on 2 April 2012.

Part 3 sets out the limited circumstances where the disclosure of protected information is permitted. The provisions are designed to ensure the appropriate balance between protecting sensitive information and permitting disclosure for legitimate purposes.

An unauthorised disclosure of protected information is a criminal offence under the *Clean Energy Regulator Act 2011* attracting a penalty of up to 2 years imprisonment or 120 penalty units, or both.

The *Clean Energy (Consequential Amendments) Act 2011* and the *Clean Energy (Consequential Amendments) Regulation 2012* specify that protected information provided under the *National Greenhouse and Energy Report Act 2007,* the *Renewable Energy (Electricity) Act 2000* and the *Carbon Credits (Carbon Farming Initiative) Act 2011* prior to 2 April 2012 (being the date the Clean Energy Regulator came into being) continues to be governed by the secrecy provisions which applied when the information was collected.

In general, the secrecy provisions governing information provided prior to 2 April 2012 are much stricter, meaning that sometimes classes of protected information recently provided to the Clean Energy Regulator can be legally shared under the *Clean Energy Regulator Act 2011*, but equivalent information provided to the Clean Energy Regulator's predecessor organisations prior to 2 April 2012 cannot be legally shared. The need to consider pre and post 2012 data differently makes disclosure more difficult and less efficient.

National greenhouse and energy reporting (NGER) scheme data including the safeguard mechanism

Part 4 of the *National Greenhouse and Energy Reporting Act 2007* covers the provisions around the disclosure of information reported under the NGER scheme. This includes secrecy provisions, publishing requirements, requests for information not to be published or disclosed, and disclosure to States and Territories.

Division 3 of the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015* allows for the disclosure of certain information, such as a facility's baseline and net emissions number, to the responsible emitter for the facility. It also contains publication requirements. Publication under the safeguard mechanism is subject to the NGER Act provisions that deal with requests for information not to be published. Publication of information under the safeguard mechanism is expected to commence in early August 2016.

Emissions Reduction Fund

Part 12 of the *Carbon Credits (Carbon Farming Initiative) Act 2011* sets out the information the Regulator must publish regarding Australian carbon credit units.

Part 27 covers the secrecy provisions of disclosing Australian carbon credit unit information.

Renewable Energy Target

Part 12 of the *Renewable Energy (Electricity) Act 2000* sets out the information relating to large-scale generation and small-scale technology shortfall charge that may be published by the Regulator.

Australian National Registry of Emissions Units

Part 5 of the *Australian National Registry of Emissions Units Act 2011* specifies the publishing requirements of the Regulator regarding national and international emissions units

Data published by the Clean Energy Regulator

National Greenhouse and Energy Reporting (NGER) scheme data

In accordance with the *National Greenhouse and Energy Reporting Act 2007*, the following information is published by 28 February each year:

- Registered corporations report: greenhouse gas emissions and net energy consumption for all registered corporations that exceed the NGER publication threshold.

- Reporting transfer certificate holders report: greenhouse gas emissions and net energy consumption for all reporting transfer certificate holders.

- Designated generation facilities report: greenhouse gas emissions, energy production, primary fuel source, emissions intensity and grid connection information for facilities where the principal activity is electricity generation.

- Extract of the National Greenhouse and Energy Register, by year: publishing corporations registered under the NGER Act.

This information and other information published by the Regulator regarding NGER can be accessed through the following:

- National Greenhouse and Energy Reporters

- Greenhouse and energy information

- Register of greenhouse and energy auditors

- Data fact sheets, and

- Greenpower and renewable energy certificates

Emissions Reduction Fund

Under the Carbon Credits (Carbon Farming Initiative) Act 2011, the Clean Energy Regulator must publish:

- Information about units

- Information about units purchased by the Australian Government

- Information about relinquishment requirements

- Information about the types of project activities used to achieve carbon abatement, and

- the location of Emissions Reduction Fund projects.

This information and other information published by the Regulator regarding the Emissions Reduction Fund can be accessed through the following:

- The Emissions Reduction Fund project register

- ERF project map

- Auction outcomes

- Australian Carbon Credit Unit quarterly report

- Carbon unit characteristics, and

- Carbon Abatement contract register.

Renewable Energy Target

Under the [Renewable Energy (Electricity) Act 2000](#), the Clean Energy Regulator may publish the following certain information:

- Information relating to large-scale generation shortfall charge, and

- Information relating to small-scale technology shortfall charge.

This information and other information published by the Regulator regarding the Renewable Energy Target can be accessed through the following:

- [REC Registry](#)

- [Accredited power stations](#) and [applications for power stations](#)

- [Issued exemption certificates](#) and [reported exemptions](#)

- [Large-scale Generation Certificate register](#)

- [Small-scale Technology Certificate register,](#) and

- [Small-scale system postcode data](#)

Australian National Registry of Emissions Units

Under the [Australian National Registry of Emissions Units Act 2011](#), the Clean Energy Regulator must publish certain information about:

- Holders of Registry accounts, and

- Kyoto units.

This information and other information published by the Clean Energy Regulator regarding the Australian National Registry of Emissions Units can be accessed through the following:

- [Kyoto units and registry accounts.](#)