Priority Energy Datasets Consultation

Consumer Data Right

29 August 2019

Contents

Introduction

The extension of the Consumer Data Right (CDR) to the energy sector seeks to establish a framework to improve competition and innovation in the energy sector. The Treasurer's designation of priority electricity datasets will enable the Australian Competition and Consumer Commission (ACCC) to develop rules governing how the CDR will operate in the energy sector.

The ACCC's rules that will apply to the CDR in energy aim:

A.   to deliver consumers both seamless access to their own data and the right to provide that data to accredited third parties so that they are able to make informed product choices;

B.   to ensure the CDR in the energy sector is interoperable with the economy-wide CDR; and

C.   to ensure that the privacy of consumers' data is protected and that CDR participants are held accountable.

To promote interoperability and economy wide data access, the rules will seek to ensure consistency in data access arrangements between sectors (such as with Open Banking), except where industry specific circumstances provide a compelling case to introduce tailored arrangements.

This paper seeks stakeholder feedback on the priority datasets that should be subject to the Treasurer's designation instrument pursuant to s56AC of the Treasury Laws Amendment (Consumer Data Right) Act 2019 and follows the ACCC's recently released position on the data access model that will apply under the energy sector CDR.

Government has not made a decision on what datasets should be designated under the CDR in energy, or who should be obligated to make that data available to customers in accordance with the ACCC's preferred, AEMO gateway, data access model. This is an initial consultation on the priority datasets that should be designated and will be followed by consultation on the text of the designation instrument at a later date.

What is in the scope of this consultation paper?

Priority datasets that will be subject to initial designation under the CDR for energy will be limited to National Electricity Market data. The three key questions that this consultation paper wishes to test with stakeholders are:

A.   What datasets should be designated in the energy sector to support basic energy retail product comparison and switching use cases?

B.   What datasets are required to support more advanced use cases, such as, whether consumers should adopt smart meters, solar panels, battery storage, and/or more energy efficient appliances?

C.   What other datasets should be designated in the energy sector to support use cases not identified in this document?

Priority datasets

The priority datasets that Treasury proposes should be designated are categorised under six headings:

1. National Metering Identifier standing data fields

2. Metering data

3. Customer provided data

4. Billing data

5. Retail product data

6. Distributed Energy Resource register data

National Metering Identifier (NMI) standing data fields

Treasury proposes that fields returned under a NMI Discovery Search 2 of CATS Standing Data should be subject to designation as a priority dataset[1], as they allow consumer usage data to be contextualised and provide detail on the static features of their connection point.

We understand that AEMO is undertaking a broader review of NMI standing data and that implementation of recommended changes are expected in late 2019.

At a minimum, fields that are of value to consumers in understanding and managing their energy use include:

• *Average Daily Load (ADL)*

   A customer's average daily consumption (in kWhs) allows for more accurate billing in the event a meter malfunctions/fails and is not replaced for a period of time.

• *Network Tariff Code*

   This field enables the accurate billing of customers by allowing them to determine their network tariff, and facilitates engagement on applicable tariff changes.

• *Presence of a controlled load*

   This field allows for accurate customer billing as controlled loads (e.g. electric hot water systems, under floor heating) are often separately metered and subject to off-peak tariffs (usually overnight) that are lower than those during the rest of the day.

• *Metering installation type*

   This field allows for the identification of the network tariff code that applies to a customer, and whether the customer's meter is an accumulation meter or a smart/interval meter.

The initial view is that there is little value in all NMI fields being subject to the CDR, and there are a number of NMI standing fields which are not mandatorily populated and are often left blank. Some NMI standing data is used for market operations, and is of generally limited use for customers.

Question 1: What other NMI datasets should be designated to support basic comparison and switching use cases?

Question 2: What advanced use cases could be supported by additional NMI standing data fields, and what fields are these?

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[1] See section 42.3.2 of the AEMO MSATS Procedures for definition of data delivered under a NMI Discovery 2 Search of CATS Standing Data.

Metering data

Treasury proposes that the designation instrument should cover data from all meter types, including smart meters that have remote communication capability.

Treasury understands that metering data is provided by Metering Data Providers to the Financially Responsible Market Participant (FRMP) – such as the retailer, and network service provider for each connection point. This data is provided in a rich Meter Data File Format, which includes all register-level data streams.

Currently, AEMO receives metering data in aggregated net format for connection points that are not serviced by the local retailer to perform the function of wholesale market settlement, as this is what AEMO needs to meet its wholesale market settlement obligations at present. The AEMC's global settlements (December 2018) rule change will mean that AEMO will receive register-level metering data for all connection points in the NEM. This is expected to occur before the likely commencement of the energy sector CDR.

NEM customers' consumption is recorded by one of the following meter types:

- Type 1-3 meters – provide remotely read interval data for larger customers in the NEM, generally commercial and industrial customers.

- Type 4/4A meters – provide interval data, which can be remotely read (Type 4). New and replacement meters in the NEM for small customers must be Type 4 unless a customer refuses or cannot access remote communications capability (Type 4A).

- Type 5 meters – provide (manually read) interval data without remote communications capability. In Victoria, certain remotely read meters are designated as Type 5 meters (under Victoria's AMI Order in Council).

- Type 6 meters – provide (manually read) accumulation data.

Question 3: Should the priority datasets designation cover all meter types? If not, which datasets should be outside the scope of the initial designation, and why?

We further understand meter reading schedules are set to meet NEM operational requirements, including settlement timeframes. Generally remotely read (Type 1 - 4) meters, are read weekly, but may be read more frequently, as is the case in Victoria. Manually read meters (Types 4A - 6) are read on a quarterly basis.

Question 4: What advanced CDR use cases might more frequent smart or interval meter reads support?

Treasury understands that the minimum functional specifications for smart meters, among other capabilities, require it to record real (watt-hours), reactive energy (Volt-Amp-reactive-hours) loads and both forward and reverse energy flows (i.e. when energy is being drawn from and sent to the grid) at regular intervals. It has been suggested that a number of innovative use cases could be supported by these data, including:

- Monitoring the energy consumption of customers' household appliances, and the costs and benefits of adopting more energy efficient home appliances;

- Helping customers evaluate the costs and benefits of adopting integrated solar PV and in-home battery systems to support the accelerated adoption of these technologies; and

- Supporting the development of virtual power grids, by enabling the development of more innovative retail tariffs structures.

Equally, information recorded by some advanced meters (including Type 4 smart meters) may lead to potentially sensitive patterns of consumption and behaviour being identified on individual

households. The leakage of these datasets may present privacy risks that some households may not be willing to bear.

Question 5: Would the proposed data sets support the use cases identified above? What other use cases could smart meter data support and what specific datasets would be required?

Question 6: How can the above privacy risks be balanced against the significant potential consumer benefits of supporting new use cases?

Treasury also understands that at least 12 months of metering data is often required to provide customers meaningful advice on the costs and benefits of switching to different retail energy products (e.g. retail tariff structures, cost benefit analysis of solar PV or battery systems).

Question 7: How long do retailers and/or metering data providers store metering data on a specific customer or site?

However, introducing the CDR to the energy sector may facilitate more frequent switching by customers, which in turn may lead to customers' usage data being fragmented across a number of different providers over a given 12 month period. Over time, this may present third parties a challenge with providing tailored retail energy comparison services.

A possible solution to this issue, might be to provide customers the option to port their historic metering data to a new retail service provider when/if they choose to switch over to a new product.

Question 8: Is there commercial value in allowing consumers to port their historic metering data (and other data as appropriate) to a new retail service provider when they switch to a new product? Are there other solutions that may be more appropriate?

Customer provided data

Customer provided data is information that identifies, describes, or is about a customer to whom energy is sold or bought (e.g. if a customer is a net exporter over a defined period).

This could include a customer's full name, email address (e.g. for multiple account holders), phone number, date of birth (e.g. of primary account holder), complete postal and/or billing address (e.g. for large organisations), information on the customer's electrical appliances (e.g. controlled loads), information that has been provided for the purpose of making payments (e.g. billing details, direct debit arrangements), and information on data access authorisations under the CDR itself.

Question 9: What data do market participants use to on-board a customer and what data is required to support efficient switching between different retail electricity service providers?

Billing data

Currently, small customers in National Energy Retail Law (NERL) jurisdictions can access up to two years of historical billing information from their retailer, and may access further historical billing information for a charge.[2] Small customers in Victoria can also access two years of historical information from their retailer, and may access further historical billing information for a charge.[3]

Question 10: How is retail customer billing data shared between market participants now, and is there a general industry standard for billing information?

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[2] Rule 28 of the National Energy Retail Rules.
[3] Clause 28 of the Energy Retail Code.

In Victoria, the Retail Code, Electricity Distribution Code and the Metering Code include provisions on access to historical billing data and a retail customer's consumption data that are similar to the requirements under the National Energy Retail Rules. For example, a retailer must, on request, use its best endeavours to provide historical billing and metering data to small customers for the previous two years and both distributors and retailers must, on retail customers' request, provide access to energy and metering data on the customer's meter, subject to certain requirements.[4]

Question 11: What consumer use cases might the priority designation of retail billing data support through the CDR?

Retail product data

Designated product data is proposed to comprise information that identifies, describes or details products, including information such as tariffs, usage charges and applicable discounts where these products involve the supply of electricity to a customer. It also includes information on eligibility and availability.

The CDR aims to provide on-demand access to generic and tailored retail product information data in a machine-readable format. Generic retail product data does not relate to an identifiable or reasonably identifiable person but tailored retail product data does and as such would be subject to the Privacy Safeguards.

Treasury's initial view is that the CDR must cover both generic and tailored classes of product data, as informed consumer assessment of the actual benefit of switching from a current tailored retail tariff structure to a different market offer would not be possible without access to both product data classes. We further understand that only retailers can link a tailored class of product data to an identifiable customer.

National Energy Retail Law jurisdictions

Generic retail product data for small customers[5] in NERL jurisdictions (all NEM jurisdictions bar Victoria) are currently subject to the NERL's publication requirements and the Australian Energy Regulator's (AER) Retail Pricing Information Guidelines (RPIG). Retailers are required to provide the following two types of plan/product data to the AER per the RPIG:

• Generally available plan information – this captures 'generic retail product data' and covers plans that are available to any customer in a given distribution zone with the appropriate metering configuration, unless they are on a restricted plan;

• Restricted plans – these also cover generic retail product data but are not 'generally available' because they are targeted at a specific group or an individual but do not relate to a reasonably identifiable person. Retailers are not required to publish them on EME.

In aggregate, we understand that the AER holds the vast majority of generic product data in the retail market. Treasury considers that designation of these tailored product datasets would be necessary to understand the specific tariff structures that consumers are on and to allow informed retail market product choices.

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[4] See rule 7 of the Electricity Customer Metering Code.
[5] This refers to 'small customers' as defined in the NERL, being a residential customer or a business customer that consumes energy below the upper consumption threshold (100 MWh per annum). Some jurisdictions have set a different threshold.

Victoria

In Victoria, electricity retailers are required to present retail product information for generally available standing and market offers for publication on Victorian EnergyCompare in accordance with the Energy Retail Code.[6] We also understand that the Victorian EnergyCompare platform collects data on tailored product classes but that these are not presented on Victorian Energy Compare.

We understand that each Price and Product Information Statement must be populated with:

- All fees and charges, including tariff and early termination fees (if applicable);

- Contract terms including minimum termination notification periods;

- For flexible retail tariff structures designed for smart meter customers – details on the right to revert to a flat tariff structure and/or opt out; and

- Details of rebates, non-price incentives, whether different tariffs apply at different times, and how to get information on the terms and conditions.

Question 12: Would designation of all product data classes currently held by the AER and Victorian EnergyCompare be sufficient to support basic comparison and switching use cases? Should product information tailored to individual consumers also be designated?

Register of Distributed Energy Resources

The Australian Energy Market Commission (AEMC) recently made a rule requiring AEMO to establish a register of distributed energy resources (DER) in the NEM, covering devices including small scale battery storage systems, and rooftop solar PV.

The National Electricity Rules will now require network service providers to request users to specify the DER technology installed at a given premises (through the network connection process), to provide this data to AEMO and a reciprocal requirement on AEMO to share disaggregated data from the register back to network businesses.

Access to this information would allow product comparisons that account for the effects of the customer's DERs. Treasury considers that these data could also support accelerated uptake of DER, by enabling CDR participants to target specific consumer groups with analysis of the costs and benefits of adopting DER (e.g. integrated solar PV and battery storage systems).

Question 13: What other use cases do stakeholders consider may be supported by the designation of the Distributed Energy Resources Register as a priority dataset?

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[6] Per the requirements under the Energy Retail Code issued by the Essential Services Commission under the Electricity Industry Act 2000 (Vic) and the Gas Industry Act 2001 (Vic)

What electricity datasets are proposed to be covered under the initial energy CDR rules?

The table below outlines datasets that may be covered under the initial CDR framework for the energy sector, and our understanding of the entities that currently hold these data sets, noting that the exact nature of the data may vary by data holder.

Types of data that may be subject to the initial CDR in the Energy Sector	Who currently holds these datasets in the NEM? Note: the exact nature of the data may vary depending on which entity holds the data.[7]				
	AEMO	**AER/Victoria Energy Compare**	**Retailers**	**Metering Data Providers**	**Distributors**
NMI Standing data Connection point information	✓		✓	✓	✓
Customer provided data[8] Name of account holder, contact details including billing address/postal address, information provided on customer appliances.			✓		
Metering data Data collected by metering data providers or otherwise estimated or substituted by Metering Data Providers	✓		✓	✓	✓
Billing data Historical billing information for each connection point to which electricity is delivered.			✓		

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[7] Different levels of access to NMI standing data are permitted, and AEMO is the only entity with access to all NMI standing data. In relation to metering data, AEMO currently receives this data from Metering Data Providers in a different format to the metering data received by retailers and distributors. The Global Settlement Rule Change will also see AEMO be the only entity in receipt of metering data for all NEM connection points.

[8] Note that it is not proposed for the CDR in energy to apply to off-market customers in embedded networks initially.

Types of data that may be subject to the initial CDR in the Energy Sector	Who currently holds these datasets in the NEM? Note: the exact nature of the data may vary depending on which entity holds the data.				
	AEMO	**AER/Victoria Energy Compare**	**Retailers**	**Metering Data Providers**	**Distributors**
Product data – generic and tailored Retail tariffs, usage charges, applicable discounts for the supply of electricity to all consumers and products tailored to a specific consumer as well.		✓	✓		
Distributed Energy Resource Register Register of DER technology installed at a residential consumer's premises	✓				

Question 14: Does this table accurately map the holders of the various classes of data described in this paper? If not, what classes of data do you not hold, or what qualifications would you place on the categories of data held?

Complex energy data sets for future implementation

There are a series of energy sector data sets that are unlikely to be considered in the initial CDR implementation, listed below (note, this list is not exhaustive). There are various reasons for the versioning of the implementation of the CDR in energy, most importantly that the roll out is focused on data sets which cover the largest numbers of consumers in the sector and those that can be accessed most efficiently in the timeframes set out for the initial version of the regime.

Future CDR-relevant data sets may include:

Non-NEM electricity metering and connection point data

> Consumer datasets covering non-NEM jurisdictions – namely the WEM, Darwin-Katherine Interconnected System, Mt Isa, and the North West Interconnected System (in WA).

Gas metering and retail product data

> To provide consumers with more tailored options to reduce the overall cost of energy consumption, including on the costs and benefits of switching between natural gas and electricity for hot water, heating, and cooking demand.

Electricity data for embedded network customers

> Currently customers in embedded networks (e.g. caravan parks, apartment buildings, shopping centres) face a number of barriers to accessing competitive retail energy offers. The AEMC are currently progressing a number of rule changes to improve access to market for this subset of

customers and designating metering data on Embedded Network Companies would at this stage be premature.

Question 15: What other datasets do stakeholders believe should be considered for future implementation? Is there a strong case for bringing implementation of these datasets forward?

Next Steps

We invite you to review the questions outlined in this document, and make submissions in response.

Closing date for submissions: 26 September 2019

Email data@treasury.gov.au