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Submission to Consumer Data Right – Priority Energy Datasets Consultation
September 2019

Renew (formerly known as the *Alternative Technology Association*) is a prominent advocate for all Australian residential energy consumers. As a member of the *National Energy Consumer Roundtable*, Renew works closely with other consumer advocacy organisations, providing expertise and experience in energy policy and markets. We also conduct independent research into sustainable technologies and practices.

As well as advocating on behalf of all residential consumers, we are the direct representative of our 11,000 members – mostly residential energy consumers with an interest in sustainable energy and resource use – who, like a growing proportion of Australians, are finding it increasingly necessary to account for their own patterns of energy usage when pursuing better from the energy market outcomes or making informed decisions when investing in home energy generation or storage equipment, or energy services.

To do so, they will need to access (or authorise a third party to access) their granular energy usage data; and their ability to do so effectively will hinge on how well the Consumer Data Right for energy accommodates this access to the relevant data.

The Consumer Data Right for Energy

Renew is strongly supportive of the Consumer Data Right for energy. In the increasingly complicated energy market, it's more important than ever that consumers can account for their energy usage patterns when making decisions about energy suppliers, products, and services. But the vast majority of consumers can't make any sense of their meter data and will need to rely on seamless processes involving third parties with authorised access to their data.

In our Advice Service[1], Renew already uses clients' meter data to give accurate advice on the economics of solar and battery investments, fuel switching, and energy efficiency upgrades. But doing so in the absence of a proper framework (such as the CDR would provide) requires coaching clients to navigate complicated processes and use advanced (for many) computer skills to locate, download, and share the data with us.

A framework designed with ordinary people in mind to allow simple access and third-party authorisation while safeguarding privacy and security and ensuring consumers stay in control of their own data will open up the potential benefits of energy data to Australian consumers and make it more cost-effective for third party vendors to tailor their products and services to their customers' actual needs.

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[1] https://renew.org.au/what-we-do/energy-consult/

Responses to Consultation Paper Questions

NMI standing data fields

1. What other NMI datasets should be designated to support basic comparison and switching use cases?
The standing data fields proposed: *Average Daily Load (ADL)*, *Network Tariff Code*, *Presence of a Controlled Load*, and *Metering Installation Type* are sufficient to support the basic use case of customers understanding their usage, making retail product comparisons, and informing retail switching decisions.

These fields are also sufficient to support a number of more advanced use cases, such as calculating the economic and environmental value of energy generation or storage equipment, major household appliances, or energy efficiency upgrades.

2. What advanced use cases could be supported by additional NMI standing data fields, and what fields are these?
It's difficult to envisage advanced use cases that might depend on other standing data fields. Some possibilities:

- *Child Name* and *Parent Name* might be useful or necessary once the CDR for energy extends to customers in embedded networks;
- *Feeder Class* and *Transmission Node Identifier* might be useful to support demand response or load control services, or dynamic DER control (or not: this is highly speculative);
- *Next Scheduled Read Date* might be useful for Types 4a, 5, and 6 meters if they are encompassed by the CDR for energy, for energy retail switching or energy usage information services.

Renew endorses the proposed approach to focus on supporting the more basic use cases first, and recommends that these additional data fields, if they are indeed useful for these purposes, not be included unless and until the CDR for energy is already working well for basic services, and there is demand and potential provision for those more advanced uses in the market.

Metering data

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?
Yes. All consumers should be able to access their energy data via the CDR framework, irrespective of their meter type. If a decision is made to limit CDR to Type 4 and 4a meters, it should also include remotely read Type 5 meters in Victoria.

4. What advanced CDR use cases might more frequent smart or interval meter reads support?
We note that outside of Victoria (where meters are read every four hours or so by DNSPs and the data is sent to retailers daily), remotely read meters are often read weekly. Reading them more frequently enables two particular services that, in Renew's view, are not particularly advanced and for many Victorians are already seen as fairly basic:

- Daily reads enable daily updates from retailers to customers showing their usage, daily cost, and next bill estimate;
- Four-hourly reads enable ongoing usage updates during the day (in Victoria, DNSP portals are updated every few hours so customers can log in and see their usage with only a few hours' lag).

More frequent reads (say, four-hourly or more frequently) reads would enable a more advanced service of sending customers updates for unusually high usage. Some Victorian DNSPs are considering offering this service as part of their enhanced customer service plans.

More frequent reads (daily, or more often) would also allow the more advanced service of promptly advising customers with solar PV if their solar PV stops working. Otherwise, it may take customers several months to realise. (We are aware of customers who didn't understand how to read their bills and had non-operational solar installations for several years before they discovered they weren't working.) Some Victorian DNSPs already advise customers if their solar PV stops working.

More frequent reads (hourly or thereabouts) would be required if demand response or other aggregator-based services, or dynamic DER control, were to leverage smart meter data to provide services. It is likely to be more cost-effective for these types of service to use existing smart meter data collection and communications infrastructure than to install their own dedicated data collection and communications equipment in customers' homes, especially if customers are to subscribe to more than one of these services.

5. *Would the proposed data sets support the use cases identified[2]? What other use cases could smart meter data support and what specific datasets would be required?*

Renew already uses basic interval data (forward and reverse energy flows measured in half-hourly intervals) to help clients of our advice service:

- monitor the energy consumption of their household appliances;
- understand the costs and benefits of adopting more energy efficient home appliances; and
- evaluate the costs and benefits of adopting integrated solar PV and in-home battery systems.

Our experience shows that these datasets are sufficient for the above use cases.

Renew has also used basic interval data to:

- assess the financial impact of different types of tariffs (including complex demand-based tariffs) on households (see our report Sharing the load - Consumer outcomes of tariff reform, part of our 2016/17 project *Assessing and improving consumer outcomes of network pricing reform*, funded by Energy Consumers Australia;
- assess the cost-effectiveness of exceeding the minimum thermal performance standard when building new homes[3];
- assess the efficacy of various programs designed to incentivise property investors to install solar on rental properties using co-payments from tenants; and
- assess the cost-effectiveness of switching from petrol or diesel vehicles to electric vehicles charged at home (a project[4] undertaken for *The Cape* housing development).

As for the use case described in the consultation paper as *supporting the development of virtual power grids, by enabling the development of more innovative retail tariffs structures* – it's not particularly clear to us what this entails; but our experience suggests that basic interval data supports a myriad of tariff designs (including demand, capacity, time-of-use, block, flat, and any combination of those), and can give significant insight into energy usage patterns, including how those patterns differ seasonally.

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

Renew's extensive experience using interval datasets shows that major appliances such as hot water systems, pool pumps, and electric heating and cooling systems can usually be identified with a fair degree of accuracy. Interval data also shows underlying or 'stand-by' electricity usage – fridges, alarm systems, home theatre appliances, modems, routers, etc.

However, this information is rarely sufficient to indicate household behaviour in any way that could be sensitive – there are simply too many variables. Stand-by loads are on whether occupants are at home or not, and much household usage during the day can be completely obscured by these loads. Identifiable heating and cooling loads can indicate that someone was home[5], but pool pumps and hot water loads, which can be similar, occur whether people are at home or not. Interval data is not sufficient to show with any certainty that a house is unoccupied at any point in time.

Our view is that the risk of any negative impact on a household from their meter data being seen by an unauthorised third party is minimal. Nevertheless, there is a perception of risk. Thus, it is critical that energy consumers data privacy is safeguarded. This can be achieved by:

- requiring firms that hold or can access consumer energy data to comply with the Privacy Act;
- ensuring third parties obtain *Explicit Informed Consent* (EIC) from customers when being authorised to access their data on their behalf; and
- ensuring all firms holding or using data meet the appropriate Australian or International Standards for data security.

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

Renew is not familiar with current practices but notes that *at least* twelve months data is required to make accurate assessments for energy comparison, energy efficiency assessment, and solar PV/battery assessments, in order to capture seasonal variation in household usage and solar generation. Where possible, we use two- or three-year data in order to account for annual variation due to the effect or hotter summers or colder winters.

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?*

As noted above, to make proper use of their data, customers need access to twelve months or more to account for seasonal variation. If their data is held by their retailer, it may only reflect the time they have been with that retailer – this may be insufficient.

However, we don't consider porting their data from one retailer to another to be a solution to this problem. The customer may not realise they need to do this at the time of switching, and it may be too late when they realise they need data from their former retailer – they may have forgotten who their previous retailer was, or the retailer may not exist, or the retailer may not have kept data from former customers.

More fundamentally, this approach flies in the face of the principle that the data should be invisible to the customer. The customer shouldn't have to think about where their data is and shouldn't have to do anything with it – they should simply be able to access it when they need to, or (more likely) authorise a third party to do so in order to deliver a data-driven service.

Under the gateway model proposed by the ACCC, requests for data can go to a central point, and the data can be delivered through that channel irrespective of whether it resides with one data holder or several. Ensuring that this process works properly is the critical need.

If there *is* a particular use case that would be enabled by a customer explicitly porting their data to their current retailer, this should be enabled. But this approach should not be relied upon as the basic way consumers access or authorise access to their historical data.

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[5] Although some people pre-heat, pre-cool or leave heating/cooling running 24/7.

Customer-provided data

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?

The inclusion of datasets such as full name, email address, phone number, date of birth, postal and/or billing address, billing details, and direct debit details seems unnecessary for inclusion in the CDR datasets. For one thing, many of these details can change, and there can be perverse and unexpected outcomes if they are recorded and used subsequently without necessarily being rechecked with the customer. Additionally, some of these details would be used to authenticate identity and consent, and it transgresses basic data security principles to keep personally identifying data with the data it identifies.

When a customer has authorised a third-party to switch them from one retail product to another, billing and personal information should be received directly from the customer themselves rather than through the CDR.

Billing data

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

No comment.

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

Retail billing data can be used to enable price comparisons for customers undertaking retail offer comparison. This is a useful supplement to historical consumption data, because it's not always possible to derive accurate cost data from historic usage data due to lack of information about price changes, discounts, and other fees and charges.

Retail product data

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

Renew agrees with Treasury's view that CDR should include both generic and tailored retail product information data in a machine-readable format. As noted in the consultation paper, this is the only way to ensure that customers on tailored offers can make a meaningful product comparison.

Register of Distributed Energy Resources

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

Renew agrees that data from the DER register specifying types of DER installed at a premise could be useful in incorporating the effect of a customer's DER on product comparisons or other data-driven services. It would also be useful for:

- people moving into a property with DER installed, who otherwise may not know the relevant details of the equipment; and
- potentially network businesses, for whom an understanding of DER assets across the network is important for system planning and management.

Renew does not support using information from the DER register to enable DER providers to target marketing to customers, as implied in the consultation paper. Any linking of data in the DER register with identifiable customers should only be done with the EIC of the customer.

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

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?

No comment

Complex energy data sets for future implementation

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?

Renew agrees that all the datasets specified in the consultation paper – non-NEM metering and connection point data, gas metering and product information data, and electricity data for embedded network customers – should be considered for future implementation.

Embedded network data should be included when the new framework is in place. It will be essential to help customers make use of the new opportunity they will have to move on-market – being able to make a price comparison between the embedded network offer and market offers will be necessary for the new framework to deliver the core consumer benefit of competitive pricing.

Gas data is sorely needed to enable customers to understand their entire stationary energy cost, and make appropriate decisions, be they retail choice (especially with regard to bundled offers) or fuel switching. Renew recommends bringing gas data into the CDR as soon as practicable.

Other matters

An emerging issue for the CDR is how to treat data divergence once the wholesale demand response mechanism is implemented for residential consumers.

For demand response customers, meter data will not necessarily be the definitive data set for all use cases – their meter data substituted with baseline data where appropriate may be the applicable data for certain use cases. Obviously, this is a future, not current, need. But when considering energy datasets for future implementation, this should also be considered.

Thanks for the opportunity to respond. If you have any questions or additional matters you'd like our view on, please contact me at dean@renew.org.au or (03) 9631 5418.

Sincerely yours

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