

7 November 2017

Submissions
Electricity Authority
PO Box 10041
Wellington
By email: submissions@ea.govt.nz

Dear Authority

Re: Data and data exchange for market transactions

Thank you for the opportunity to provide comment on the *Data and data exchange for market transactions consultation paper (consultation paper)*, a paper focused on the data collected and exchanged as part of operating the market.

As a customer-centred business our focus is ultimately, will changes in this area deliver better outcomes for our customers? With our customers and their experience in mind, we believe that, before the Authority speeds up its data exchange processes, there is a need to get the basics right. This includes putting in place processes that result in more accurate and consistent data and greater standardisation of approaches between networks. Simply focusing on the speed of data exchange misses the important role accuracy has to play in getting the best outcomes for customers.

As it stands, network pricing, fee structures and requirements all differ wildly between networks. In addition to this, there is an increasing number of embedded networks both appearing and changing ownership. This lack of standardisation causes unnecessary complexity and processing time, which hinders data quality and data exchange and ultimately is likely to lead to a sub-optimal customer experience.

Finally, while we understand it is the Authority's intention to deal with consumption data through the Authority's multiple trading relationships paper, we think there is a need to take a holistic view of data and look at the current consultation paper and the consumption data paper together as these two papers are integrally linked, and focusing on these areas separately has the potential to miss getting the best long term outcomes for consumers.

We would be happy to discuss with you any of the points raised in this submission.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Louise Griffin'.

Louise Griffin
Head of Regulatory Affairs and Government Relations

Q1. What inaccuracies in data and data exchanges have you experienced, for what reasons, and with what impact?

The efficiency of data exchange can be adversely impacted by inaccuracies or inconsistencies in data and variations in approaches taken by some distributors, particularly in relation to the switching process. In order for switching to work efficiently, it is essential that the data populated on the registry is accurate, of a high quality and does not require any manual intervention or management of exceptions.

This is quite different from the status quo where we typically receive around 30 to 40 switching exceptions a day that require investigation and follow-up before the end-to end switch process can be completed (i.e. switch complete and pricing for the customer established).

From our perspective, these exceptions are generally caused by inconsistent data being populated on the registry. For example:

- metering information not aligning with network price category e.g. registry indicates load control and relay on site (e.g. IN19) but network price category (in some network areas) denotes the ICP is uncontrolled;
- ICP may switch in with a residential ANZSIC code (populated by previous trader) but with a 'General' or 'Non-residential' network price category.

Timing issues may mean that a 'forced validation' of the above fields (metering information, ANZSIC codes and price category) on the registry is also not realistic. In our view, participants (traders, Meter Equipment Providers (MEPs) and in some cases distributors) should be encouraged to work more collaboratively to resolve anomalies as soon as practicably possible, recognising that any corrections may impact the end-customer and that, therefore, this process needs to be carefully managed.

Other discrepancies in metering attributes are typically caused by manual or systematic errors when populating data or assumptions made in the past with regards to the mapping of register contents. A considerable number stem from an incomplete clean-up before data was populated on the registry in 2013. This is something participants have been working through ever since and something which requires further attention. Some are also the result of metering changes that were not captured correctly on meter docket or when meter docket were processed, whereas others correctly reflect what meters have been configured to record even though the combination of meter register contents and hours of availability may be 'non-standard' from a distributor perspective.

Whilst not 'inaccuracies' as such, the data exchange process is rendered sub-optimal by differing network views or pricing rules, for example what constitutes a residential property where there is a distinction made between residential and general in the network pricing

schedule. In some cases when a trader requests a change from a general to a residential price category through the EIEP 8 price category change request process, this may be rejected and further evidence requested such as site visit photos which incurs costs for traders. A further issue is that where we request 'Low Fixed Charge' for an individual ICP or group of ICPs and a distributor may advise that some/all are ineligible for reasons such as the:

- property is a residential end-use but it is in the name of the landlord,
- postal address does not match the installation address
- consumption is too low.

There may be perfectly valid reasons for such scenarios which would support the properties in question being primary places of residence and the allocation of the Low Fixed Charge price category is valid. There should be a consistent approach taken by all distributors.

In all the scenarios outlined above, the onus falls on the gaining trader to manage any exceptions and to verify the information is correct with the customer, the metering equipment provider (MEP) and/or the network. In addition to the potential for a negative customer experience, this also incurs costs, particularly for traders who may be required to provide additional information before a change in network price category can be made. If data was accurate and aligned the above would not occur. There are also instances where distributors refuse to use the Registry hub for EIEP files (particularly EIEP8) and require files to be sent via e-mail. In some cases there are delays processing files which causes exceptions when reconciling monthly billing data.

Some distributors utilise a field in the registry called 'Installation Details' to convey essential pricing information (for instance, CPD multipliers for billing). This is essentially a free form text field, and with no standardisation it is not easily automated. The same would also apply to the Distributor Unmetered Load details field on the Registry.

Furthermore, the standard format for conveying a price change from a network to Contact (EIEP 12) is insufficient by itself to fully understand a distributor's pricing structure. It can be useful when it is only conveying changes in rate, but is not overly helpful when trying to understand a changed or new structure. Further, it is not uncommon for retailers to spot omissions and errors in the EIEP 12 file when comparing it to alternative files (e.g. PDF, Excel) provided by the network.

Perhaps the most common error would be where a market operation service provider (MOSP) provides a live dataset containing records for a grid point that has been recently decommissioned. These records cause validation errors when we process the related files as our internal systems regard the decommissioned grid point as invalid. These events mean that we have to divert ICT, MOSP, and business resources to identify the root cause of the issue and correct the file load process.

Finally, there is quite a delay before Electricity Authority data (which will be used by participants for analysis/decision-making) is available. It would be good if it could come out faster.

Q2. What are the types of benefits and the costs of being able to reduce settlement periods between industry participants?

Benefits from increasing the frequency of reconciled purchase volumes could include a reduction in the cost of energy for customers.

However, reducing the settlement period is unlikely to achieve improvements to submission accuracy or address issues with the prudential requirements. This is because participants already have the option to calculate their settlement liability at any point within a settlement period and make a prepayment of this liability to the Clearing Manager in advance of the clearing and settlement process. Any such prepayment is included in participants' prudential liability calculations by reducing the amount of coverage required.

Without a change to other rules that result in a significant improvement in the quality of data, decreasing the settlement intervals will only result in an increase in data quality issues. This is due to the timeframes allowed for under the Code to provide information to participants. Currently switching timeframes allow for 50% of standard switch transactions to be completed within five days, while the remaining 50% have 10 business days, and move in switches can be backdated for an unlimited period. In addition to this, MEPs have 10 business days to update the registry with a meter event that reflects a meter installation or change. Meter issues such as stopped meters, bypassed meters, smart meter communication failures, phase failures and incorrect application of meter multipliers take time to investigate and resolve. Any change to settlement processes must consider the other changes that will be required in order for the Authority to achieve its desired outcome, otherwise parties will be settling more frequently, but less accurately.

Under current processes, traders are required to perform 60 settlement runs per year based on monthly settlement methodologies – if the industry was to move to weekly settlement then the submission (data collection, validation, aggregation) would increase to 260 settlement runs. While this is possible, in order for this to occur and result in better outcomes for customers, underlying data issues must first be resolved.

It is worth noting that, while some traders choose to invoice their customers on a more frequent basis, there are also many traders who offer more than electricity services where monthly invoicing is the more efficient mechanism to keep costs down for the customer. Additionally, a number of traders have integrated their settlement process within their billing engines, which would result in significant business model/system changes for these participants in order to achieve a shortened settlement period. This needs to be considered in any change.

Q3. What are the types of benefits and costs of more standardisation in data and data exchanges?

Contact supports any activity that results in the standardisation of file format conventions and exchange technologies across the industry. We believe consistency in the technology and file formats will result in better outcomes for our customers and will reduce the cost to serve. Other benefits include:

- reduced complexity for new entrants (and existing retailers too), thereby increasing competition and innovation in the market
- allows for the automation of processes because we will have known formats and consistent content to enable retailers.

It is worth noting that with GXP pricing we can't reconcile variable volume at an ICP level.

In terms of costs, there are costs associated with standardising 'custom' processes and cleansing inconsistent data on the registry.

Q4. What are the types of costs and the benefits of using more accurate available data for settling transactions?

Contact is concerned that the statements in paragraphs 4.36 and 4.37 are misleading in relation to the accuracy of submissions. Contact's submission accuracy for July 2017 between the initial and one-month wash-up for our approximately 426,000 ICPs was 0.74%. Furthermore, our submission accuracy for the June 2016 settlement period was 0.46% between initial and final wash-up, which produced a higher accuracy than some participants who submitted 100% HHR data.

The use of interval data in the HHR settlement process results in participants having to validate 1488 data points for a 31-day month as opposed to one to two data points for the NHH process. Accuracy improvements to the settlement process can be achieved by incrementally reducing the NHH submission accuracy tolerance down from +/- 15% in a similar manner to what the Gas Industry Company implemented in the first three years of the gas downstream regulations. This reduction in allowable submission accuracy, coupled with both a mechanism to apply industry wash-up costs to those participants who do not achieve this submission accuracy and also a top-down estimation of initial submission volumes performed by one of their MOSPs, has encouraged participants to improve their submission accuracy without mandating the submission methodology.

One benefit of using interval data for HHR settlement is less reliance on the application of the residual profile shape to produce the equivalent HHR consumption volumes by the reconciliation manager. The residual shape should be the average shape of the NHH ICP population. However, this residual shape is corrupted by the consumption relating to meter faults, perverse outcomes from ICP days scaling, incorrect calculation of loss factors, application of the industry embedded generation flat photovoltaic shape (PV1) which is not

representative of the actual exported energy behaviour within the industry, and incorrect assignment of NSP derived/engineered profiles to ICPs. Participants choosing to use HHR smart meter interval data to settle largely avoid the impacts of these issues, with the exception of the application of loss factors and unaccounted-for energy (UFE) across their submission volumes. The NHH trader within a balancing area with the majority market share will incur the majority of the outstanding residual profile shape issues, which should be sufficient incentive for traders to transition to HHR settlement when it is no longer cost effective for them to remain on NHH settlement.

Q5. What changes may be required to allow more buyers and sellers of products and services to access the industry's data systems in the future?

Timely access to, and transmission of, data is critical to supporting innovation in the P2P type trading platforms outlined in the consultation paper. Guidelines, or standardised communication protocols, relating to consumer electronics would also reduce the complexity to innovating in this space. In reality, this would require a move away from the dominant flat-file packet transmission between parties over (S)FTP currently used in the market and on to real time API machine-to-machine transmission protocols. We would also emphasise that standardised APIs need standardised behaviours and authentications; stateless, token-based APIs; and a valid ability to refine and filter results. A recent example of this is the EMI system for real time dispatch which starts down this path.

Q6. What are the risks to security of data exchange and consumer privacy from more participants exchanging more data?

The purpose of the Privacy Act is not to prevent sharing of personal information (such as our customers' data), but to ensure that personal information is shared in an informed and responsible manner. So, provided that we comply with the Privacy Principles (which include using secure methods of sharing our customers' data (e.g. using the registry hub, as Contact typically does, to share customer data with networks)) the increase in participants exchanging more data should not pose any higher risk than we currently face. If anything, with more data being shared more often, there may be an increase in the risk of information being disclosed in error (human error type situation). With that in mind, all parties will need to ensure that security measures are well managed and that consistent protocols for the sharing of the information are observed to mitigate this risk.

Perhaps the biggest risk a trader faces is reputational risk where the party with whom data is shared does not comply with its Privacy Act obligations. As the direct link to the customer, the trader would be placed foremost in the spotlight if anything were to happen with the customer data after it was shared. This risk can however, be mitigated by entering into commercial contracts with such third parties.