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Mr Trevor Johnston
Australian Energy Market Commission
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Dear Mr Johnston

National Electricity Amendment (Publication of zone substation data) Rule 2013

Jemena Electricity Networks (Vic) Ltd (**Jemena**) welcomes the opportunity to respond to the Australian Energy Market Commission's (**AEMC**) rule change consultation paper relating to publication of zone substation data.

The National Generators Forum (**NGF** or the **proponent**) has requested a rule change. In brief, the rule change request proposes that DNSPs be required:

- to make available half-hourly load data for all zone substations within the Distribution Network Service Provider's (**DNSP**) distribution systems;
- to provide this data on an annual basis and where available for each of the preceding ten years; and
- to publish this data on their websites.

Jemena has contributed to and supports the Energy Networks Association's (**ENA**) submission to the consultation paper.

Jemena's key messages are:

- Jemena will incur significant costs to collect half-hourly interval data at each of its zone substations and publish the data on its website. As noted in the consultation paper, the key premise of the proposed rule change is that half-hourly interval load data at zone substations is available for the ten year period and can be easily accessed for publication. This is not the case with respect to Jemena. In Jemena's case, we do not capture energy data. Only demand data is available.

Jemena's website may not have the capacity to load large volumes of zone substation data and we are concerned that when interest parties download the large volumes of data, it may slow down the website for all other network users and the general public. If this is the case, then we would have to

expand our website capacity to meet the proponents request for publication of the data.

Jemena does not agree with the proponent's assessment that there will not be significant implementation or ongoing compliance costs associated with the publication of zone substation data.

- Jemena does not support the publication of data on a website. Instead, Jemena considers that interested parties should register with the DNSPs for the zone substation data (demand or energy, depending on availability). The data would then be sent on an annual basis. This alternative approach to making the data available may require DNSPs to publish a process on their website for the interested parties to obtain the data.
- Jemena believes it would be difficult to identify the consumer types taking supply from the zone substations. The zone substation data would be an aggregate of electricity consumption of domestic and business customers (small, medium and large) customers. The data accuracy and consistency of data may vary between DNSPs. Therefore, the expected benefits identified by the proponent may be limited and could lead to misleading observations.
- Jemena considers the parties requesting the data should be required to pay the reasonable costs incurred by the DNSPs for making the data available.
- Jemena believes that DNSPs should be entitled to require interested parties to enter into an agreement with the DNSP to ensure that the data is only used for the intended purpose – i.e. zone substation data modelling of the key determinants of electricity demand changes at the sub-regional level. The data should not be provided to third parties without the consent of the DNSP.
- To mitigate confidentiality issues, decisions on the level of data aggregation or whether to make available data of a particular zone substation should be made by DNSPs.

Jemena's responses to questions posed in the consultation paper are set out in Annexure 1.

If you have any questions in relation to this submission, please contact me on (03) 8544 9442 or by email siva.moorthy@jemena.com.au.

Yours sincerely

Siva Moorthy
Manager Network Regulation and Strategy

Annexure – 1

Jemena Electricity Networks (Vic) Ltd response to the National Electricity Amendment (Publication of zone substation data) Rule 2013

Jemena's answers to the questions posed in the consultation paper are set out below:

Question 1 - Data availability and accessibility

As noted in the consultation paper "The key premise of the proposed rule change is that half-hourly interval load data at zone substations is available for the ten year period and can be easily accessed for publication". This is not the case with respect to Jemena, as the detailed responses below indicate.

In relation to DNSPs:

(a) How many zone substations are there in the DNSP's distribution system?

Jemena has 23 zone substations. The number does not include customer owned stations.

(b) Is half-hourly interval load data at zone substations available?

Jemena does not have half-hourly load (MWh) data available. JEN only captures instantaneous demand (MW) data at zone substations at irregular short intervals. Jemena has not assessed the investment required to capture half-hourly (MWh) data, but we estimate it to be significant.

(c) If the data is available, does it extend back to the previous ten years, or if not, how many years of data are available?

Jemena has demand (MW) data for each of the zone substations. The data only extends back to 2008.

(d) Are there issues with data quality and consistency regarding the historical data? For example:

- (i) Are there issues related to metering which may affect the quality and reliability of the data?**
- (ii) Are there gaps in the data with respect to a time series and/or location?**
- (iii) Are there issues of consistency in data within and between distribution businesses and jurisdictions?**

Yes. There are issues with data quality and consistency. Jemena wish to emphasise that the load data at the connection points measured by AEMO are for market settlement and billing. Consequently, the energy and demand data is very accurate and complies with the metering standards required for market settlement and billing. That is not the case with the data recorded at Jemena's zone substations. The data is less accurate and its accuracy is sufficient for Jemena's operational and planning purposes only. For example, not all data points are checked and validated as they are mainly used for trend and profile type analysis only. Missing data are generally not filled.

(e) Can the required data be extracted from historical records? If so, what is involved in this task? How costly and/or time consuming is this likely to be?

In our response to the earlier questions, we have noted that Jemena does not capture energy data. However it is possible to estimate the energy data from the demand data and this is likely to require a significant amount of data processing. The estimation should be done by the generators, or alternatively, Jemena could provide this service at cost to the generators.

(f) What issues are there in the ongoing management and updating of the databases? For example, what business systems and/or processes may need to be put in place in order to facilitate the publication of the data annually?

The issues are summarised as follows:

- data would require significant additional checking and validation by engineers;
- data would need to be processed and formatted for ease of access and uploading;
- the web page would need to be regularly monitored to ensure enough bandwidth is allowed for downloading by the public; and
- the web page will require careful design to ensure it is user friendly.

In terms of all stakeholders:

(g) Does the data need to be published in a standardised format (for example, in a spreadsheet) for ease of access? If so, what is the preferred format?

Yes, Jemena recommends the data be time stamped in half-hourly data.

Question 2 Expected costs of collecting and publishing data

Jemena would incur significant costs to collect the data in a form that can be published annually on their websites. Moreover, it will incur additional costs to expand its website capacity to handle large volumes of data (such as that required by the proponent) to be uploaded to it and downloaded by interested parties. Jemena is concerned that downloading a large volume of demand data may slow down the website for the general customers who are seeking network connection, supply reliability, complaint and claim forms from our the website.

Jemena considers the publication of hour-hourly data for zone substation is an onerous request of the DNSPs. Jemena suggests the AEMC give consideration to DNSPs making the requisite data available (rather than publish the data) to interested parties. Additionally, we believe interested parties should directly pay the reasonable cost incurred by the DNSP to collect and provide the data in a form they require.

In relation to DNSPs:

(a) What are the expected establishment activities/tasks and costs in implementing this rule change? Please provide an indication of the magnitude of these costs.

Jemena expects these costs to be significant, especially with respect to validating and checking the data. However Jemena is unable to provide an estimate at this stage as the detail surrounding the data requirement is not yet known.

(b) What are the expected ongoing activities/tasks and costs in complying with this rule change? Please provide an indication of the magnitude of these costs.

See previous question.

(c) Are these ongoing costs likely to decrease over time? If so, how significantly and over what time period?

Most likely not, it would probably increase due to an increase in the number of zone sub-stations and the volume of accumulated data.

(d) Are there other expected activities/tasks and costs associated with this rule change that have not been identified? If yes, in terms of costs, how significant are they?

Yes, Jemena advises that responding to public queries on the data will also contribute to higher costs. Jemena is not yet able to provide an estimate as the detail surrounding the data requirement is not yet known.

Question 3 – Confidentiality issues

Jemena agrees that by making zone substation data available there may be the potential to reveal information about individual customers or market participants, which would reasonably be considered by those customers as confidential. Furthermore, we agree that to mitigate against this risk, one solution maybe for the data from a zone substation where there are one or a small number of customers, to be aggregated with data from other neighbouring zone substations.

In terms of all stakeholders:

(a) Are there likely to be issues of confidentiality surrounding the publication of zone substation data? If so, at what disaggregated level (that is, in terms of number of customers) do such considerations come into play?

Data relating to customer owned zone substations or zone substations with a major customer should not be aggregated with neighbouring zone substations.

(b) Will aggregation of the data up to a certain number of customers avoid issues of confidentiality?

Not in all cases. It is not the only the number of customers that should be taken into consideration. For example, there can be 200 residential customers and one very large customer connected to a zone substation. The zone substation data can still provide a good insight into the large customer's load profile. We believe the level of aggregation should be a decision for the DNSP.

(c) If so, what criteria should be used to aggregate the data? For example, should aggregation occur where there are five, three or less customers supplied from one zone substation?

Refer to the above response. Alternatively, DNSPs should be allowed to decide whether to make available certain zone substation data on the basis that it has the potential to reveal information about individual customers.

(d) Will aggregation reduce the usefulness of the data for demand forecasting and econometric studies? If so, what level of aggregation should be applied to avoid the issue of confidentiality while still retaining some degree of usefulness of the data?

Jemena is not in a position to respond to usefulness of the data to generators.

(e) How should disputes arising from data confidentiality be resolved? In relation to DNSPs:

As we have noted in our response above, the level of aggregation or whether to make data available from certain substation should be a decision for the DNSPs. Should there be a dispute between a generator and a DNSP with regard to release of the data, then one way to resolve the dispute is to seek the consent from the affected customer or customers.

(f) How many zone substations supply less than five customers, less than three customers and only one customer in a distribution system?

The number of customers is not the deciding factor (as noted earlier in our response) but rather it is the proportion of load that matters. Jemena does not regard customer owned stations as zone substations.

(g) Are there issues of liability associated with judgements on confidentiality?

Liability associated with judgements on confidentiality is a concern to Jemena. To mitigate this risk, we generally seek legal advice on these matters. Making this data available to parties comes with a cost and we believe the party requesting the data should pay all reasonable cost incurred by the DNSPs.

(h) How should issues associated with making judgements on confidentiality be addressed?

Refer to our responses to questions (b) and (c).

Question 4 – Expected benefits

The proponent is of the view that there are expected benefits of the proposed rule change. These benefits are that it will:

- enable detailed econometric studies of the key determinants of electricity demand changes; and
- enable third party scrutiny of AEMO's forecasts by allowing interested parties to undertake or commission their own electricity demand forecasts.

Jemena believes it would be difficult to identify the consumer types taking supply from the zone substations. The zone substation data would be an aggregate of domestic and business customers (small, medium and large) customers.

In terms of all stakeholders:

(a) What is the materiality of the benefits identified by the proponent?

Refer to responses to previous questions.

(b) What are your views on the value of historical and forward looking electricity demand information?

From a pure forecasting perspective, historical information is useful in establishing a starting point for the forecast only. Jemena considers that it would have limited benefits in informing future demand requirements.

(c) What other benefits of the proposed rule change can be expected that have not been identified by the proponent?

Jemena is not aware of other benefits in the short term on the assumptions that DNSPs would not be required to collect additional data to meet this rule change requirement.

(d) Are these other benefits likely to be significant?

No comment.

(e) Who are likely to be the recipients of these benefits?

No comment.

Question 5 – Consistency of approach

Should the AEMC make a rule change that requires DNSPs to provide the zone substation data, we believe there may be merit in having a consistent approach to publishing AEMO and DNSP sets of data.

In terms of all stakeholders:

(a) Should there be a consistency of approach in publishing zone substation and connection point electricity demand data? Please provide reasons as to why there should/or should not be a consistent approach.

If the data is made public, they should be consistent to avoid misinterpretation.