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Mr Steven Graham
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Steven

Dear Mr ~~G~~raham

ADVANCED METERING - VICTORIAN DEROGATION APPLICATION

I refer to the Commission's note emailed to the Department of Primary Industries (DPI) on 4 December 2008 in which you seek further input on issues raised by stakeholders following your recent draft decision on Victoria's derogation in relation to advanced metering. I also refer to your meeting with DPI on 8 December 2008, and subsequent contact between our officers.

As discussed, DPI believes that most of the issues identified are not new, rather they have been debated over the course of the Advanced Metering Infrastructure (AMI) project.

In relation to issues 3 and 4 of your note, and as discussed with you, we met with the Victorian electricity distributors on 9 December 2008 to work through the stakeholder comments. Whilst the distributors may approach you separately on these issues, we have outlined DPI's response to all the matters below.

Issue 1 – Potential “carve-outs”

As discussed at our meeting, the identified potential carve outs initially appear to be a means of facilitating some level of Retailer/ Metering Data Agent (MDA) responsibility for AMI metering for customers consuming below 160 MWh pa, in preparation for the period after the expiration of the derogation. However, on closer examination, it is evident that there are some serious implications, including:

(i) The processes within the National Electricity Market (NEM) are not in place to deal with Retailer/MDA responsibility for AMI services.

There are processes and services in the NEM that support the provision of interval metering data to the market (NEMMCO and Retailers).



The NEMMCO B2B hub provides for a flow of information between Retailers and Distributors. The B2B hub supports information flow where the Distributor is the Responsible Person, but not where the Retailer/MDA is the Responsible Person.

One of the tasks of the National Stakeholder Steering Committee (NSSC) in moving forward with a national smart metering framework is to detail the new B2B services required to allow information flows in the reverse direction to support the Retailer/MDA being the Responsible Person when the derogation lapses. However, before these market services are defined and implemented there would be a number of concerns with the Retailer/MDA being the Responsible Person for AMI metering. The following are some examples.

- a) For re-energisation or de-energisation of customers' installations, the B2B service orders support the Retailer requesting the Distributor to perform this activity. Distributors, through AMI systems, can then remotely de-energise or re-energise a customer's installation subject to addressing a range of safety issues they are required to track (eg: whether a customer is on life support and therefore the customer's installation should not be de-energised). However, when the Retailer/MDA is responsible, there are no enforceable procedures currently in place to support these activities.
- b) Distributors have a network tariff for off-peak hot water provision that allows them to set different customers to different starting and finishing times for heating cycles. This is to allow them to manage the load on their networks. Where the Distributor is responsible for AMI metering, the Distributor will, where required, install meters that combine the metering and load control functions. Distributors can then remotely turn on and off the water heater and also vary the times when particular customers' water heaters come on and off to balance loadings. Where the Retailer/MDA is responsible there is no B2B service to allow the DB to communicate the required turn-on times and turn-off times to the MDA for communication through their AMI network to the meter. Hence the Distributor would, in that situation, need a separate timeswitch to be installed which would likely only be manually controlled. The cost of this device plus the additional installation cost would be costs the customer would have to bear.
- c) AMI meters support outage detection, such that when a customer is off supply the AMI system will report the customer outage. When the AMI meter is part of a Distributor's AMI system, this data can flow directly to the Distributor's outage management system allowing restoration of customer outages to be efficiently managed. When the customer's AMI meter is part of a Retailer/MDA AMI system there is at present no path for outage information to be provided to the Distributor.

Each of these issues can be addressed over time. Experience indicates that they cannot be addressed in the timeframe required to rollout meters within the legislated timeframe.

(ii) Potential for customers being locked in to a particular MDA.

There are only a small number of MDAs that are offering AMI like services to customers consuming less than 160MWh pa. The technology and protocols being used are not the open standards being used by the MDAs that serve the above 160MWh pa customer groups (where it is easy to change MDA). Because of the proprietary nature of these services and protocols there is the distinct possibility that Retailers who contract for these AMI like services from a particular MDA for a sub 160mwh pa customer might not be able to find a competitive MDA offering to provide AMI services for the metering that is installed.

Hence, although the customer might be able to change Retailer, they may not be able to change MDA and hence be locked in to a particular provider. Such a situation does not achieve metering contestability. Nor, more importantly, does it enable effective retail competition.

(iii) Potentially destroys the required geographic density for Distributor AMI systems.

The Victorian project requires advanced metering to be deployed universally and within an accelerated timeframe. The most cost-effective AMI systems to do so are predominantly those that require a high level of geographic density. Examples of these are mesh radio systems, where the meters form a mesh and provide repeating and routing pathways back to data concentrator nodes that communicate to back office systems.

When customer meters are not part of a Distributor's AMI system this will detract from the integrity of the mesh network. This can then mean that communication to some meters may be lost with consequent loss of ability to remotely read until the network is manually reconfigured, perhaps by the addition of more data concentrators. Such fixes can be time consuming and costly.

At present the extent of this issue is not known. By the time the Distributor rollouts are complete and there is much more experience with AMI systems it is more likely that ways around this issue will be identified.

(iv) Distributor exclusivity provides least cost AMI

Both the National Smart Metering business case of 2007/08 and the Victorian AMI business case of 2005/06 identified that Distributor- exclusive rollouts had significantly higher net benefits than Retailer/MDA led rollouts. Based on this, the position taken by the Ministerial Council on Energy (MCE) in June 2008 was for Distributors to be responsible for the rollout of smart metering. Diminution of this aspect of the rollout is therefore likely to reduce net benefits to the community.

In summary, DPI has serious concerns with any carve-outs, for the reasons above. You would further note that, prior to the lodgement of Victoria's derogation application, DPI formally approached Retailers to ascertain the nature and extent of their interest in becoming the responsible party for the provision of AMI metering services. No Retailer was able to commit to a potential carve out program.

Additionally you will note that Retailers/ MDAs currently have the option to be the Responsible Person for customers consuming less than 160MWh pa. This option has rarely been exercised.

Issue 2 – The needs of PV and small generation customers

Despite stakeholder assertions to the contrary, the announced Victorian feed-in tariffs (standard and premium) are based on net energy to the grid, not gross energy produced by the generator. The Victorian AMI functionality specification requires net metering capability, specifically to support small generation customers. It is however noted that there is nothing to prevent customers having their own metering to measure gross output. Indeed some PV cell providers include gross metering in their electronics control equipment.

In the circumstance when a customer's metering is to be replaced with an AMI meter as part of the Victorian AMI rollout project, then the customer's Retailer can require a Distributor to provide gross metering capability. The AMI Specifications Order- in- Council provides a process for Retailers and Distributors to agree a means to provide "enhanced functionality and enhanced service levels". In practice, when requested by a Retailer to provide gross metering, the Distributor is likely to install either a two element AMI meter (where one of the elements records gross output) or a separate AMI meter to record gross output.

In the circumstance where a customer is about to install their own generation, the customer can also request (through their Retailer) an AMI meter ahead of the AMI rollout to their area. The Victorian AMI cost recovery Order- in- Council provides for this through a "customer requested service" arrangement. This would result in a form of bring- forward cost that would be payable by those customers.

By means of the above, customers who install generation should therefore be able to receive the metering services that the generation stakeholders' submissions to the AEMC indicate that they desire.

Issue 3 – Service Levels/standards

As indicated above, DPI has met with the Victorian Distributors to discuss whether section 7.11.1(d) of the National Electricity Rules (NER) applies only where a metering installation does not have capability for remote acquisition of actual metering data.

It is noted that uncertainty regarding this issue already exists, irrespective of the AMI derogation application. The NER already allows for remotely read type 5 meters for reasons of "operational difficulties" (7.3.4(f)).

To clarify the impact on the Victorian AMI project, it is suggested that there be a statement in the derogation that the requirements of clause 7.11.1(d) also apply to

“relevant *metering installations*”. This is in effect “option 3” for dealing with the issue, as identified in NEMMCO’s recent submission to the Commission.

Issue 4 – Standards for customers

The Victorian requirement for daily reading post 1 January 2012 does not need to be prescribed in the NER. Rather, it can be efficiently and effectively dealt with through either metrology procedures or the Victorian AMI level service level requirements.

The daily reading requirement is currently prescribed for the Victorian project in the AMI Service Level Specification and the associated Order in Council. It is therefore DPI’s preference that these requirements be initially determined through Victorian jurisdictional processes (enforceable by the AER) rather than through NEMMCO-managed processes. This approach provides an important element of flexibility to the AMI program in its early stages.

Victoria supports the ultimate determination of these requirements through the emerging national smart meter framework, and will initiate a formal and efficient transition to these national arrangements at the earliest possible future date.

In summary

DPI is pleased to be able to respond to the Commission on these issues. We believe that the key concerns of stakeholders have been largely addressed in the design of the Victorian project.

DPI is keen to assist in any way to expedite the derogation to provide essential investment certainty for the Victorian AMI project. As stated in Minister Bachelor’s letter to the Commission in September, we are keen that a final decision is made as soon as possible and that no further deferrals occur.



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24/12/08