28 September 2012

energex
positive energy

Mr John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce

ENERGEX welcomes the opportunity to provide comments on the Authority's Draft Advice - E*nergy Market Arrangements for Electric and Natural Gas Vehicles*.

Energex notes the interdependencies and overlaps between this review and the AEMC's *Power of Choice* review. Where there are common issues raised in the Draft Advice for both reviews Energex will provide detailed comments through its submission to the Power of Choice review.

To assist the Commission in completing its review of Electric and Natural Gas Vehicles please find attached a high level overview of the specific electric vehicle issues raised in the Commission's Draft Advice.

Should you have any questions in relation to this matter please contact Bevan Kirk, Corporate Analysis Manager, on (07) 3664 4092.

Yours sincerely

Kevin Kehl
Executive General Manager Strategy & Regulation

Attachment 1

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Attachment 1

Network Pricing Signals

Energex agrees that for an efficient introduction of electric vehicles (EV), it would be beneficial that network price signals take into consideration the impact on network infrastructure and drive appropriate responses by customers.

The Australian Energy Market Commission (AEMC) has suggested that some geographical variation in DUoS charges may help to address the effects of EV clustering. Energex does not consider that locational pricing to address specific load is a feasible option. In addition to administrative costs there are also potential issues whereby some customers who have not connected EVs may face higher DUoS charges simply due to their location.

Controlled Charging

Energex accepts in principle the AEMC's premise that the right to control charging resides with the customer and that they should be able to assign that right. However, Energex considers that to be effective, the customer must face appropriate network price signals, and suitable contractual arrangements need to be in place to manage the process for reducing and reinstating load.

It is important to ensure that owners of electric vehicles will have sufficient incentives to charge their vehicles outside of peak consumption times.

Vehicle to Grid

Vehicle to grid technology is still at a very early stage of development. In Australia it is currently not possible to purchase a standard electric vehicle that has the ability to discharge the battery to supply an external load. Therefore, at the present time bi-direction energy flow cannot occur for electric vehicle charging installations and as such it should not be a requirement to have bi-directional metering installed.

If and or when vehicle to grid capability is available as a standard feature on electric vehicles and associated charging infrastructure, only then does the bi-directional flow of energy become a possibility. Energex believes that at this time it would be necessary to install bi-directional metering consistent with clause 7.3.1(a) (7) as it is currently worded.

Energex notes however, that the customer's right to control discharge of an EV back to grid must be subject to the requirement for an agreement with the distribution authority, similar to those requirements for any other forms of generation.

Identifying a Large Load

Energex considers that distributors need to be informed of significant changes in load to ensure that there is appropriate supply infrastructure to the premises, e.g. there may be a need to upgrade from single phase to three phase supply. In Queensland this is achieved through the application of the Electricity Connection and Metering Manual and AS/NZS 3000:2007.

While there is potential merit in capturing information regarding specific large customer loads such as electric vehicles, it would be important to avoid creating an onerous administrative and data management requirement for DNSP and/or other parties. There may be an opportunity to include this information in the standing data that is collected for each NMI. From a distributor's perspective, it is not the individual premises per se that we require information on but rather the ability to aggregate individual premises data to identify geographic areas where there is an increasing concentration of large customer loads.

Metering – Connection Points, Supply Points and NMI's

Energex understands that the AEMC's intention underlying the creation of a new term "Supply Point' is to allow consumers to more easily engage with more than one FRMP at a single premise. Energex believes that rather than the term 'Connection Point' having two different meanings in different contexts within the NER, the real issue is that currently a Connection Point can only be assigned one NMI, i.e. a new NMI requires a new Connection Point. The proposed change therefore seeks to associate NMI allocation with Supply Points rather than Connection Points and therefore enable multiple Supply Points, and NMI's, at a single Connection Point. Energex questions whether a new term is required or whether the same outcome could be achieved by assigning a NMI to a Metering Point or Metering Installation as defined under the rules.

Metering – Parent-Child metering

Energex considers that there are some risks associated with the parent-child model proposed in terms of the provision of accurate and timely metering data. Where the MDP for the parent and child meters are different the MDP for the parent meter faces increased risk in terms of fulfilling its obligations regarding data provision for market settlement. This is because the parent MDP is now dependent on the provision of data from the child meter MDP to finalise the net metered load at the parent NMI. Therefore it might be worth establishing some provisions that protect the parent meter MDP from penalties or performance reporting impacts due to the failure of the child meter MDP to provide data in sufficient time and of sufficient quality.

Currently the Queensland jurisdiction has not approved embedded networks for small customers as detailed under clause 13.6 of the *MSATS Procedures: CATS Procedure Principles and Obligations.*

Energex also notes that there appears to be an inconsistency between the recommended treatment of fixed DUoS charges in Box 3.2 relating to parent-child metering and Box 3.5 relating to arrangements where there are two FRMPs at one connection point. Box 3.2 suggests all fixed DUoS charges would be allocated to the parent FRMP unless otherwise agreed while comments on p 41 recommend sharing fixed DUoS charges equally between the NMI's.

The AMEC indicate in the paper that the role of the RP including, who the RP should be for the child meter, would be considered in the Power of Choice review. Energex has been unable to find specific reference to these issues in the Draft Advice and associated documents. Energex is of the opinion that the child meter is not connected to the distribution network and therefore the LNSP should not be obliged to provide an offer to the FRMP to be the RP, as is currently required for type 1-4 meters under

clause 7.2.3.(a) and (c). However, the LNSP could at its own discretion choose to make an offer to the FRMP.

Metering – Multi-element meters

The AEMC's proposed approach to enable individual measurement elements within a single device to be regarded as separate metering installations would require changes to current NMI allocation processes. At present, the meter number is unique within Energex's distribution network and a key input in the NMI allocation validity check. Enabling two NMIs associated with the one meter would therefore require changes to this process and the backend systems to perform validity checks. This could potentially be done through Source Codes. The costs (most likely significant) and timeframe required to enable this, would need to be considered prior to implementing this change.