Endeavour Energy

23 January 2012

Mr Peter Boxall
Chairman
Independent Pricing and Regulatory Tribunal of NSW
PO Box Q290
QVB Post Office
Sydney NSW 1230

Dear Mr Boxall

REVIEW OF SOLAR FEED-IN TARIFFS DRAFT REPORT

Endeavour Energy welcomes IPART's Draft Report on its review of Solar Feed-in Tariffs and in particular the considerable analysis undertaken on the impact of photovoltaic (PV) systems on network businesses and network business costs.

I note that the majority of the Draft Report's recommendations and findings relate to the setting of a fair and reasonable feed-in tariff for electricity retailers. However, a small number of the recommendations and findings are relevant to network businesses and Endeavour Energy will limit its comments to those particular recommendations and findings.

Potential for PV exports to reduce network expenditure

Endeavour Energy supports IPART's draft finding that a distribution network related component should not be included in determining a fair and reasonable value for a non-subsidised feed-in tariff in NSW.

Endeavour Energy also supports IPART's draft recommendations that:

- Comprehensive network system modelling is currently not warranted to calculate the impact of small scale PV on network business costs; and
- The National Electricity Rules and guidelines governing DNSPs should be reviewed to ensure they appropriately incorporate small scale embedded generation into the policy and regulatory framework.

As IPART's analysis has shown and as discussed in the attachment to Endeavour Energy's submission to the IPART Issues Paper, there are currently no material net savings in network investment due to small scale solar PV, largely as a result of the dispersed nature of the small scale solar PV installations and the system peak demand within Endeavour Energy's distribution area occurring at times when the contribution of PV generation is expected to be minimal. Further, the inherent lower reliability for PV generation would require the total installed capacity to be discounted to achieve a sufficiently high confidence interval for the available PV supply that would allow

51 Huntingwood Drive Huntingwood NSW 2148
PO Box 6366 Blacktown NSW 2148
T: 131 081 • F: 61 2 9853 6000
www.endeavourenergy.com.au
ABN 59 253 130 878

compliance with the NSW Licence conditions for design, planning reliability, and therefore be considered as part of the network planning process.

The emergence of storage technologies and the possibility of increased presence of electric vehicles on the network in the future may mean that customers would have the ability to change their load shape and the demand they present to the network and this may lead to changes in the network costs. Directly quantifying any network investment savings and allocating them to specific customers or classes of customers as a result of the installation of small scale PV or storage technologies will not be a straightforward matter.

While in the future the increased presence of small scale PV and storage technologies may lead to reduced network costs as a result of changes in the load shape and maximum demand there will also be increased costs associated with managing these connections. In the past the distribution network has been designed for a one way flow of energy from the transmission system to the customer's installation. The connection of small scale PV units and storage technologies at a customer's premise can mean that energy now flows in the reverse direction for some of the time. With the likely increased presence of small scale PV units and other types of small or micro embedded generation and storage technologies, there will be an increasing need for greater flexibility in the distribution network. There will also be increasing challenges for the management of the network with greater variability between supply and demand requiring real time responsiveness to changes in demand.

This means that the distribution network will be more complex than it is today and will require the development and implementation of sophisticated communication and information technology platforms to enable the real time management of the network and connected generation and loads.

The increased penetration of small scale PV systems and other forms of embedded generation will also lead to increased costs to manage the power quality issues. With the number of small scale PV systems connected under the Solar Bonus Scheme it has already become apparent that voltage stability on the network will be an issue particularly if the number of connected systems increases dramatically. As detailed in Endeavour Energy's submission to IPART's Issues Paper, there are several possible ways of aiding the connection and increased penetration of small scale solar PV systems which will help to address some of the power quality issues, but they will all come with some moderate to significant cost implications either for the individual customers seeking connection or for all the customers connected to the network.

The increasing penetration of small scale solar PV has highlighted the need for a review of the policy and regulatory framework to ensure that the connection of these embedded generators is undertaken in an efficient and safe manner and that the costs are appropriately allocated. The use of net metering for these connections will, over time, result in a reduction in the amount of energy transported through the network which may have implications for network revenues and/or prices under existing regulatory arrangements. This highlights the need for consideration of a number of issues including metering arrangements, tariffs and tariff structures and the allocation of costs to and the recovery from the appropriate users of the network.

As discussed above, the emergence of storage technologies and the possibility of increased presence of electric vehicles on the network suggest that the outcome of any policy and regulatory framework review should provide sufficient flexibility to allow for these developments to occur over time and to ensure that effective financial incentives are in place to encourage their development.

Potential for PV exports to result in transmission network cost savings

Endeavour Energy supports IPART's recommendation that a transmission network related component, including an allowance for avoided Transmission Use of System (TUoS) payments should not be included in determining a fair and reasonable value for a non-subsidised feed-in tariff in NSW.

Leaving aside the complex administrative issues around avoided TUoS payments, as IPART correctly points out, the locational component of TUoS is only avoided in the year in which the embedded generator connects to the distribution network. The transmission companies are regulated under a revenue cap and any revenue not collected in one year can be recovered in the next year through higher prices for customers. Further, legal advice obtained by Endeavour Energy suggests that the payment of avoided TUoS to embedded generators is not required for embedded generators connected under the NSW Electricity Supply Act, which would include the majority of small scale embedded generator connections.

Retailer contributions to the costs of the Solar Bonus Scheme

Endeavour Energy has no comments to offer on IPART's recommendation that the NSW Government should impose a statutory obligation on all retailers to contribute to the costs of the Solar Bonus Scheme until the scheme ceases in 2016 and we have no comments to offer on what such a rate should be if the recommendation is adopted. However, should the government adopt this recommendation it will be important for the NSW Government, retailers, network businesses and IPART to work closely together to agree on how such a contribution will be paid and the timeframe for the introduction of such a policy. Similar to the Terms of Reference, the mechanism for implementing the recommendation must be administratively simple and must take into account the impact on business operations of administering the payments.

One mechanism that may work would be for the network businesses to reduce their contribution by the agreed retailer rate and then for the retailers to pass through the network payment plus the retailers' contribution to the eligible customers. From a network business perspective this would likely require only a change to the existing rates. For retailers, however, there may need to be system changes which will require time to be developed and tested before being implemented, particularly if the retailers are currently not paying voluntary premiums to eligible customers.

There will also be transitional issues around the implementation date as not all meters can be read on the implementation date; therefore some pro rating of payments will be necessary for generation produced across the implementation date. There will also be the need for changes to regulatory or legislative instruments to give effect to the changes, such as to mandate the payment by retailers and to reduce the contribution from the network businesses.

If the NSW Government were to consider implementing the recommendation from 1 July 2012, work would need to commence early in 2012, and well before IPART's final report is released. This lead time is required to ensure that the mechanism can be agreed, transitional and system issues identified and fully considered and any changes to systems and regulatory arrangements are undertaken in sufficient time to meet the implementation date.

If you would like to discuss any of these matters further, please contact our Manager Network Regulation, Mr. Michael Martinson, on (02) 9853 4375.

Yours sincerely

Vince Graham
Chief Executive Officer