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Standing Committee of Officials for
Ministerial Council on Energy
Department of Resources, Energy and
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Dear Sir/Madam

CONSULTATION ON COSTS AND BENEFITS OF SMART METERING IN OFF-GRID AND REMOTE AREAS

Ergon Energy Corporation Limited (Ergon Energy) welcomes the opportunity to provide comment to the Standing Committee of Officials (SCO) for the Ministerial Council on Energy (MCE) on the NERA draft report for consultation on Costs and Benefits of Smart Metering in Off-Grid and Remote Areas.

This submission is provided by Ergon Energy in its capacity as an electricity distribution network service provider in Queensland.

Issues identified in the NERA Draft Report

Ergon Energy notes the NERA draft report findings that across the board (seven out of eight of the case studies) results suggest that costs of Smart Metering Infrastructure (SMI) roll out do not outweigh business efficiency benefits. This is consistent with the data provided by Ergon Energy for the two Queensland case studies at Birdsville and Erub (Darnley Island) although as the report recognises, the results differ considerably for a range of reasons from community to community.

Ergon Energy offers the following comments on specific aspects of the NERA draft report findings and assumptions which underpin the cost benefit analysis and to also inform future discussions on the provision of smart metering infrastructure in off-grid and remote areas.

Meter Data Management and Network Management System costs

With the principal costs of a roll-out of smart meters identified as the cost of purchasing and installing meters, smart meter related operation costs and associated backend IT system costs, the report has based the costs for the meter data management and network management systems component (the associated backend IT system) on the assumption that back end meter data management and network management systems are provided by a third party to benefit from economies of scale, without investing in the system themselves.¹

¹ Costs and Benefits of Smart metering in Off-Grid and Remote Areas p.25

To clarify this assumption, Ergon Energy suggests that a roll-out of smart meters in off-grid areas would not be feasible unless an electricity distributor had already successfully established a stable platform with suitable meter data management and network management systems in place for on-grid areas first.

Taking aside the assumption on the associated backend IT system costs, Ergon Energy notes the analysis identified that the major difference in costs between the case studies is the type of backhaul communications infrastructure available and the mix of current meters.

Communications Infrastructure

The NERA draft report indicates that off-grid communities in Western Australia generally have access to 3G communications and in the Northern Territory, satellite services are subsidised to remote locations by the Northern Territory Government. In the Birdsville case study, a lack of easy access to 3G communications means that back haul technology would be via costly commercial satellite at this stage. In the case of Erub Island, 3G communications are available but require high gain antenna and specialised equipment to ensure reliability. 3G reliability concerns in many remote parts of Queensland would dictate that the cost of satellite for back haul would continue to keep these communications costs high in the short term

Prepayment Meters (Card Operated Meters)

Ergon Energy supports the findings on prepayment meters, recognising that the main benefits of providing prepayment services via smart metering infrastructure, the remote connect/disconnect, the ability to add credit remotely either by telephoning the retailer or via an on-line portal and to a lesser extent direct load control, have limited practical application at the present time.

Ergon Energy currently has approximately 4,100 card operated meters in isolated communities where the jurisdictional pre-conditions for installation of card operated meters have been met. In communities where card operated meters are installed at the request of the local authority, all residential meters will be card operated with "Powercards" being retailed by the local community store/supermarket. The local retailer facility is a pre-condition for the installation of card operated meters and overall prepayment meters have proved to be effective in managing billing and credit control costs in these communities.

The options cited in the report, of using the card based credit system enhanced with a card reader via wireless communications and using a centralized portal embedded in the mesh radio network, at the general store or community centre for transferring value to a meter after a retailer has received payment, offer potential business savings.

Ergon Energy agrees that while a prepayment smart metering system suitable for use in remote communities is yet to be developed, the report has identified opportunities for cost savings and benefits in the future - particularly as current prepayment meters become obsolete and smart metering technology develops.

Ergon Energy will investigate new prepayment technology when it becomes generally available and can be deployed with a high level of reliability and serviceability.

Direct Load Control

Ergon Energy agrees with the findings of the NERA draft report where '*Customers on prepayment systems generally use substantially less electricity than the average non-prepayment customers suggesting there are limited opportunities for load control in many communities.*² The report suggests that energy conservation and demand management can be addressed more successfully in remote communities by other initiatives such as education programs. Ergon Energy is currently achieving initial success with its "Powersavvy" community based energy conservation program in seven of our largest isolated communities.

Availability of Smart Metering Infrastructure for remote Australia climatic conditions

We note that the NERA draft report has not been able to address the costs of failure rates of smart metering infrastructure due to climatic conditions such as temperature extremes and humidity due to the infancy of metering installation programs in these geographic areas. Ergon Energy continues to work with metering suppliers to address issues as they arise and agrees that further pilots and trials on the reliability of the meters and the communications technology are essential before any roll-out should be considered.

Conclusion

Economic benefits of a roll out to remote communities are vastly affected by the remoteness and size of the communities.

Access to suitable technology and cost of that technology plays a major part - backhaul communications issues will continue to be a major consideration

While this cost benefit analysis report of a small sample of eight communities which were selected as representative of the majority of off-grid communities, has found that the roll-out of smart metering infrastructure is not warranted at this stage, the report identifies key issues which be useful as a basis for future consideration.

Please do not hesitate to contact me on (07) 4121 9545 or Mary Martin on (07) 4727 5754 if you require any further information.

Yours sincerely



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² Draft Report for Consultation - Costs and Benefits of Smart Metering in Off-Grid and Remote areas, p18