



9 July 2015

Mr Richard Owens
Senior Director, Australian Energy Market Commission
Level 6, 201 Elizabeth Street
Sydney NSW 2000

Lodged online at www.aemc.gov.au

“National Electricity Amendment (DMIS) Rule 2015 (Ref ERC0177)”

Dear Mr Owens,

GDF Suez Australian Energy (GDFSAE) welcomes the opportunity to comment on the Australian Energy Market Commission’s draft rule determination on the demand management incentive scheme (DMIS).

GDFSAE recognises efficient network development and use as an important element in delivering consumer benefits. We remain concerned that the current draft rules are unlikely to provide long term benefits to consumers and are likely to interfere and undermine other regulatory reforms such as the cost reflective network pricing. In addition, they are likely to interfere with functioning of the wholesale market (signals to consumers), and depending on the specific implementation, also retailer and customer relationships.

GDFSAE understands this is a difficult policy area as it blurs the boundaries between the competitive market entities and regulated entities and note this suggests appropriate caution.

GDFSAE established context for this initiative in an earlier submission. In that submission GDFSAE noted that the DMIS does not support efficient outcomes as it undermines customer choice and provides questionable customer benefits. This context remains relevant to the draft rule determination and provides a backdrop to this further submission. While GDFSAE remains unconvinced by the rationale for the proposed rule change, this submission addresses the management of the DMIS as a transitional arrangement.

Is there a case for transitional arrangements?

If it is accepted that the Cost Reflective Network Pricing (CRNP) will be effectively implemented, and will provide signals to foster efficient customer responses, then there will not be a need for a DMIS or Demand Management Innovation Allowance (DMIA) in the future. However the CRNP

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initiative will take time to implement and will also require the rollout of technology, such as smart meters, in jurisdictions outside of Victoria. GDFSAE understands there may be some desire for transitional arrangements.

Thus, the key question is; whether a case can be made for an interim arrangement to incentivise efficient network investment/response which delivers net benefits to consumers?

The draft rule determination fails to articulate this case and also makes unsubstantiated claims regarding the draft rule change meeting the National Electricity Objective. In all likelihood, due to many unknowns, it is difficult to find authoritative assessment of benefits to consumers as a result of network efficiencies.

According to the Oakley Greenwood and Associates report “Cost-benefit analysis of a possible Demand Response mechanism” (December 2014), the impact on distribution is approximately \$101 million (present value) over a 20 year period. Although the report doesn’t quote annual benefits, the average annual benefit is expected to be in the order of than less than \$10 million (20 year timeframe, 7.5 per cent discount rate)¹. However, in practice, they are likely to be less in the early years as benefits are expected to be “back-loaded” due to initial low demand growth and significant network reserve capacity.

If a transition to the CRNP of 5 years is assumed, the total benefits over this period are expected to be less than \$25 million¹.

It is also observed that electricity demand is largely stagnant and in the Victorian context, there are only some “pockets” of growth. These pockets are primarily driven by new residential developments and DMIS is likely to be of only a very limited benefit in responding to the new customer demand. It may be more effective and efficient for embedded networks to facilitate new customer demand, and to cater for both energy and capacity. These embedded networks would potentially include the use of demand management technologies, demand diversity, rooftop solar PV systems and battery storage.

More generally, interim benefits may be captured in a specific network location to defer augmentation by incentivising demand response using a bi/multi-lateral arrangement(s). Such arrangements would be between customers and retailers, without having to resort to a market wide arrangement.

It seems doubtful that there are any real and significant benefits to be delivered by an interim arrangement. As such, if the AEMC is minded to proceed with the rule change, it is imperative that the cost of a transitional arrangement doesn’t exceed the claimed benefits.

¹ GDFSAE analysis and additional interpretation of Oakley Greenwood Associates data

For this reason alone it is essential that there is a clear benchmark against which the benefits of an arrangement are measured and the expectations of the AEMC can be quantified.

Dealing with uncertainty – Issues with planning scenarios to assess risks and benefits

When referring to customer benefits of the proposed DMIA/DMIS arrangement, the draft determination refers to sustained and on-going demand reductions and customer benefits in the long term. However, the document is silent on how such benefits would be determined and measured.

The electricity sector is subject to unprecedented change, with technological and economic advances in a range of technologies. For instance: communications (internet, smart devices/appliances); smart meters; smart appliances; battery storage technologies; distributed generation, rooftop solar PV; and potential growth of electric vehicles (these can be battery or fuel cell based).

Given the rate of change, it is not clear that there is a long term benefit to consumers from a network innovation allowance. The customer will ultimately decide on the value proposition from their perspective, if provided with efficient price signals (technology options, network pricing, energy pricing). Customer choice may result in a range of possible outcomes and some of these are illustrated as follows:

Photo Voltaic Solar (PV) and Electric Vehicle (EV) household customer scenario

- *Exports solar PV energy during the day to the grid*
- *Drives the EV home and uses some residual battery capacity to reduce (or eliminate) the evening peak. (Could even feed into the grid)*
- *Charges the EV batteries “off peak”, when both network and energy costs are lower.*
- *In the morning uses the EV battery to reduce the morning demand.*

PV and battery storage household customer scenario

A similar scenario can be developed based on local battery storage instead of an EV, resulting in a similar demand reduction but with much lower energy consumption overall (perhaps close to being self-sufficient, but relying on the network for backup/reliability services).

For instance, consumers are expected to respond to the cost reflective network prices and retail offerings. This in turn is likely to impact the network usage and reduce demand at network peak periods, thus delaying network augmentation and reducing overall network costs to consumers. This would typically involve the use of technology to manage maximum demand at critical times (both network capacity and energy market).

These scenarios illustrate a range of possible developments which will not be homogeneous and are expected to vary over time.

The purpose of this discussion is not to attempt to forecast the future, but to illustrate a large degree of uncertainty in relation to the use of, and reliance on, a distribution network. Future networks are likely to deliver a range of functions and services not being currently offered (or needed) and some customers (or groups of customers) may even disconnect from the grid.

Since it is not possible to know what a customer of the future will look like, it is impossible to quantify the long term benefits to consumers.

Consequently, networks should not be allowed to undertake projects that undermine customer response and potential benefits in the future. For example the DMIA/DMIS may undermine benefits to one group of customers to respond to cost reflective network pricing and at the same time interfere with the energy market and result in an increase the network costs which are subsequently socialised.

There also appears to be a “Moral hazard” when networks are incentivised to innovate, to implement and then receive compensation for portion of the revenue forgone. Unless such an arrangement is limited to a very short (interim) timeframe, it is likely to lead to an overuse of such initiatives, and result in suboptimal outcomes given that networks only see benefits from their perspective.

It is unclear (and probably unlikely) that the rule change will lead to sustained benefits to consumers and the AEMC must clearly establish, in theory and evidence, that the proposed DMIS/DMIS arrangement meets National Electricity Objective prior to proceeding.

Conclusion

GDFSAE continues to note the lack of evidence that the market or customers will benefit from the DMIS consistent with the national Electricity Objective. Nonetheless, should the AEMC be minded to implement the scheme as a transitional measure it needs to be appropriately managed and its efficiency carefully assessed against agreed benchmarks.

GDFSAE trusts that the comments provided in this response are of assistance to the AEMC in its deliberations. Should you wish to discuss any aspects of this submission, please do not hesitate to contact me on, telephone, 0417343537.

Yours sincerely,

David Hoch

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