17/06/2020

Ref: Energy Security Target and Safeguard 2020
NSW Department of Planning,
Industry and Environment

Dear Colette Grigg,

Consultation Paper: Energy Security Target and Safeguard

Mondo welcomes the opportunity to respond to the NSW government's consultation paper on the Energy Security Target and Safeguard. While the consultation paper covers a broad area, Mondo is primarily responding on the proposed Energy Savings Scheme, as this area is most relevant to our focus of enabling businesses to manage and optimise their energy use.

We support the adoption of the Energy Safeguard Scheme, ensuring that the existing Energy Savings Scheme continues, and strengthening it with the introduction of the peak demand reduction scheme. We believe that the new peak reduction scheme will be a positive addition and work alongside the existing energy system to incentivise investment in and management of assets that enable the balancing of supply and demand in the system.

Principles

The following set of principles should be considered as part of development of the schemes detailed design; they effectively represent Mondo's overall position on the proposed changes. For further detail we have also provided specific responses to certain consultation questions over the page.

Complementary – the incentive created by the scheme should be designed to complement other signals within the National Electricity Market. We support the concept that this scheme can complement existing price signals, by focusing on creating the upfront incentive to ensure the installation of equipment that is capable of responding to market price or 'dispatch' signals.

Administratively simple – in defining 'for what is a certificate issued' and how certificates are surrendered the schemes design should lean towards simplicity over a focus on directly matching the incentive to a given peak event.

Open – the activities included should initially focus on those that are likely to provide the most flexible capacity, such as heat pumps (HVAC), electric storage hot water and battery energy storage systems. The scheme should then remain open, with a flexible mechanism to enable the addition of various technologies and activities that contribute to peak demand reduction over time.

Overall, while we understand there are several detailed design issues to be worked through, Mondo welcomes the NSW Government's move as part of its overall energy strategy to develop a certificate based peak demand reduction scheme. Please feel free to contact Adam White, our Network Lead, (adam.white@mondo.com.au, ph:03 9695 6423) if you have any questions in relation to this submission.

Adam White

Network Lead - Policy & Aggregation Services

Specific consultation questions:

Energy Security Safeguard

The NSW Government will expand fuel switching activities

19. Which cleaner fuel switching activities should the scheme provide incentives for?

Mondo welcomes the NSW Government considering expanding fuel switch activities, we consider that fuel switching will play a large role in decarbonising the economy. Fuel switching is an activity that often requires multiple incentivise to align, such as the cost of network connection capacity (electricity or gas), end of life equipment and new technology. There is a role here for the ESS to add to this 'stack' of incentives and guide investment towards the appropriate fuels. For example, the use of renewable energy systems for agricultural pumping loads.

20. Should the scheme cover technologies that are being wound down under the SRES? If so, what is the best way to do this?

The scheme should consider capturing solar and heat-pump water heating, and consider expanding support to 'smart' electric hot water heaters when deployed in combination with solar PV. These new variety of 'smart' electric hot water heater act as cost effective thermal 'batteries' capturing solar energy that might otherwise not be efficiently utilised or event 'split' as solar penetration continues.

22. What would be the likely scale of uptake of cleaner fuel switching activities? Please consider the number, size, and cost of projects.

An emerging fuel shifting technology that could be incorporated into the scheme is Stand Alone Power Systems, these systems are primarily solar systems with battery storage and diesel backup. Their deployment has the effect of reducing both peak network demand and shifting from grid connected energy to a primarily renewable energy source.

The purpose of a peak demand reduction scheme

25. Who is best placed to manage the financial risk that capacity is not made available when needed?

The wholesale energy market and its participants

Eligible peak demand reduction activities

26. Are there other activities the NSW Government should consider for inclusion in the peak demand reduction scheme?

While the list of activities included within the ESS is extensive and covers the majority of the technology types that could form part of a peak demand reduction system, the peak demand reduction calculation will need to consider how a particular technology is intended to be controlled/operated in determining is coincident peak demand reduction.

For example, while moving from a 2.5 Star to 6 Star HVAC heat pump system will provide say 0.2 kW of coincident peak demand reduction without any control or change in behaviour. This product when bundled with a 'smart' controller and a service contract that enable it to be cycled during peak demand periods this peak demand reduction could increase may times, to say 3+ kW.

In determining the activities under the peak demand reduction scheme, it may be worthwhile considering separately the peak demand certificates generated by the technology inherently and the certificates generated by the ongoing contractual relationships for optimisation of the technology. Both could still be assessed for the life of the product to generate upfront certificates, with the optimisation benefits being considered for the life of the contractual relationship.

30. Which calculation methods should be developed first?

Priority should be placed on those activities that are able to deliver the largest overall peak demand reduction and have an ability to scale. This includes residential and small commercial HVAC products

(heat pumps + smart control (DRED)), as well as residential and commercial & industrial Battery Energy Storage Systems (BESS). Both these technologies when bundled within a product that provides ongoing optimisation of their operation, have the ability to scale and provide significant peak demand reductions.

31. Should location-based multipliers or activities that are specific to certain locations be considered?

Yes, the location value of peak demand reductions varies significantly. Mondo does note that often the cost and complexity in developing highly granular locational signals can be material. As such we suggest that basic model of could be used to prioritise NSW postcodes by the likelihood of network capacity investment.

Two approaches could be utilised, either using network regulatory information to map intended network investment across the state. Alternatively examining the publicly available statistics that correlate with the underlying drivers of demand for network capacity, such as population growth, new home starts, employment, business investment etc could be used to 'weight' certificates generated in specific postcodes.

Establishing liability for the scheme

32. What are your views on the proposed approach to scheme liability? Please align your response with the topics above.

The following approaches to scheme liability are appropriate:

- Alignment of the scheme with the liability under ESS is appropriate.
- Adjusting to financial years for liability appears appropriate.
- To avoid complexity, target allocation based on energy is also appropriate.
- Surender of certificates based on fixed percentage contribution to liable activities is appropriate.

33. What would be the implications for the available dependable peak demand reduction capacity in New South Wales if the scheme allows carry forward?

As the objective of the scheme is to encourage peak demand reduction activities, it is appropriate to allow for carry forward to increased flexibility, along with no expiry on the sale of certificates generated. These two design elements, while reducing complexity, also help the scheme to complement other ongoing operational incentives for 'dispatch' provided by the market currently. It enables the schemes incentive to be better aligned with the installation of equipment and technology, rather than linking the incentive with a 'given year' that would create an incentive that overlapped with existing signals rather than complementing them.

Peak demand reduction certificates

35. Should certificates expire every compliance year or should they be transferable to future compliance years? What implications would your preferred approach have for ensuring dependable peak demand reduction capacity in New South Wales?

Further to our response to *question 33,* we suggest no expiry on the sale of certificates generated, reducing scheme complexity. While Mondo recognises that this would impact the certainty in peak demand reduction in a given year, once the operation and dynamics of the scheme has been observed in practice, this could be accounted for in the setting of targets.

Enabling certificates to not be assigned to a particular year, would allow certificates to make a greater contribution to the upfront capital cost of the activity (a key barrier to the uptake of peak demand reduction technology). This would mean that the schemes incentive would complement the ongoing cost savings of the deployed technology typically provides, acting to lower the initial investment barrier to activities.