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Office of Energy and Climate Change

Submitted by email: [sustainability@environment.nsw.gov.au](mailto:sustainability@environment.nsw.gov.au)

Dear Mr Procter,

### **Peak Demand Reduction Scheme – Consultation paper for Rule 1**

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on this consultation paper for the NSW Peak Demand Reduction Scheme (PDRS).

Origin is a large Australian integrated energy company with activities in energy retailing, power generation, natural gas production and LNG export. Origin also has recent experience in exploring new product offerings and has focused on areas such as solar & storage, connected homes and future fuels including hydrogen. As a retailer we will be a liable party under the PDRS but are also investigating the opportunities that new peak demand response activities may provide our customers.

Origin unequivocally supports the Paris Agreement and the strong intention of the Glasgow Climate Pact to pursue efforts to limit global warming to a 1.5°C scenario. We support the NSW Governments' goal of achieving net zero emissions in the state by 2050 and interim target of a 50% reduction on 2005 levels by 2030.

In 2017, Origin became the first Australian company to set emissions reduction targets approved by the Science Based Targets initiative (SBTi). We have a formal, public commitment to halve our Scope 1 and Scope 2 equity carbon emissions by 2032, while also committing to a 25% reduction in our indirect Scope 3 emissions. The reference year for these targets is 2017. We are currently reviewing our targets to align them with a 1.5°C scenario.

Our overarching approach with the PDRS is to be mindful of any additional costs imposed on customers by the new scheme. This is especially pertinent considering the current economic conditions which includes upward pressure on various household and business costs.

Our submission includes comment on the following key points:

- Liquidity in the first compliance year
- New demand shifting and response activities (Question 9)
- Demand response capability for air-conditioning (Question 6)
- Hot water (Question 7)

### ***First compliance year***

We are disappointed that new demand response and demand shifting activities have not been made ready for the first year of the scheme and note that it may be difficult to explain to customers why they are paying a charge under the PDRS for activities that are already occurring under the NSW Energy Savings Scheme. We suggest that new demand response and shifting activities should be developed as a priority for the second year.

However, we understand the practical considerations which have led to the first tranche of activities being based on existing energy efficiency activities from the NSW Energy Savings Scheme. We encourage the Government to finalise Rule 1 as soon as possible to provide certainty to activity providers to start deploying these activities and creating Peak Reduction Certificates (PRCs). It is vital for the success of the scheme that there is sufficient liquidity in PRCs in the first year of the scheme. This will help reduce costs to customers and promote confidence in the longevity of the scheme.

### ***New demand shifting and response activities (Question 9)***

We support a broad range of new demand shifting and demand response activities being added to the PDRS from the second year of the scheme. In particular, we support residential behavioural demand response, load shifting through the control of appliances and batteries, controlled hot water and electric vehicle charging as possible priority activities. We would be pleased to discuss potential opportunities in more detail.

Origin is already deploying these customer solutions. We have developed our own proprietary virtual power plant (VPP) platform to enable the coordination of behind the meter distributed energy resources (DER). NEM-wide, assets connected to the VPP have grown from 98 MW to 217 MW over the past 12 months, including an increasing variety of distributed energy and Internet of Things (IoT) devices. These devices include hot water systems, solar, batteries, air conditioners and various industrial assets, which are aggregated, controlled and dispatched in response to market and portfolio positions, creating value for both Origin and customers through a lower cost of energy.

We support the development of a customer centric, competitive market approach to DER integration, that focuses on incentives rather than mandating rules. This should be flexible and support a range of technologies to allow customer choice and promote the development of multiple products and services. We are pleased to see a strong focus of customer considerations in the consultation paper.

We understand that some evidence of a contractual arrangement to create an incentive at peak times may be required to earn PRCs. This will need to be carefully worked through when detailed methods are devised so as to balance maintaining the scheme aim whilst also providing a sufficient incentive to promote new activities.

Whether the scheme can provide material support for such activities will depend on the detailed methods developed. We support the NSW Government undertaking further modelling and analysis of a range of potential activities to enable their timely development in the new scheme.

### ***Demand response capability for air-conditioning (Question 6)***

We do not support mandating AS 4755 for demand response capability for air-conditioning (AC). However, we do support mandating the *capability* of demand response from AC and believe that various technology options should be eligible under the scheme. This will provide customers with a range of products that best suits their needs and budgets.

In our experience, using AS 4755 is cost prohibitive and customers prefer more cost-effective solutions to achieve the same aims. We are not currently using AS4755 as this requires connection and control to the AC directly which needs to be installed by an electrician, adding extra cost. Our preferred approach to controlling AC is via IR smart thermostats which send a signal to the AC via infrared (which simulates the AC remote control). These are simple to install and are low cost.

We also see with the increase of wifi enabled AC the lowest cost solution would be for AC manufacturers to provide open APIs to AC to be able to control the customers AC (with customer consent) rather than relying on the cost prohibitive AS4755 solutions.

### **Hot water (Question 7)**

As noted above, Origin is currently deploying demand response capabilities for hot water services. We support the new scheme providing incentives to deploy such incentives and would be pleased to discuss these with the Government further.

We note that there are a range of technology solutions available to customers when changing their hot water service to a more flexible option. It is important that the scheme can cater for a range of circumstance to suit a customer's needs. In our experience, existing smart meter infrastructure can enable a cost-effective solution, as opposed to installing new hardware or control solutions which can be cost prohibitive.

One important consideration is the availability of "solar sponge" style network tariffs, such as currently available with SA Power Networks (SAPN). We encourage the NSW Government to work with NSW networks to implement such tariff arrangements in the future.

Thank you for the opportunity to provide feedback on these proposed changes. If you wish to discuss any aspect of this submission further, please contact Matthew Kaspura at [matthew.kaspura@originenergy.com.au](mailto:matthew.kaspura@originenergy.com.au)

Yours sincerely,



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