



Terry Niemeier
Director – Program and Market Development - Safeguard
NSW Office of Energy and Climate Change

15 November 2024

Dear Mr Neimeier

Comments on proposed changes to the Peak Demand Reduction Scheme

Thank you for the opportunity to comment on the changes being proposed to the Peak Demand Reduction Scheme (PDRS).

About Intellihub

Intellihub is an Australian and New Zealand based utility services company. Our core business is the installation, operation and maintenance of smart electricity meters and we are rapidly growing our Behind the Meter and Pooled business.

Behind the Meter

Intellihub is working with electricity retailers to better manage electricity demand during peak times and give them the ability to operate virtual power plants. This includes the electrical load from household energy appliances such as solar, batteries, water heating, electric vehicle charging, pool pumps and other household appliances. Through our cloud-based DER software we provide the control and data management required for virtual power plant participation. Reliability of energy supply during peak times is important as the electricity grid transitions to clean energy.

Pooled

Intellihub has developed a digital pool management system. Through the installation of sensors and a smart controller to existing pool pumps our technology uses machine learning to automate when pool equipment needs to operate. The pool management system can be connected to Intellihub's smart electricity meter and can be remotely controlled. The service is focused on delivering clean pools and clear, healthy water while being able to manage energy consumption and pool energy costs.

Our Comments

Residential demand shifting and demand response through battery energy storage systems (BESS1 and BESS2)

IntelliHub supports the introduction of new activities to incentivise peak demand shifting and peak demand response through the installation of battery energy storage systems.

Co-payment requirements

IntelliHub supports consumers receiving quality battery products and agrees that linking the activity to an Approved Battery List is appropriate. For this activity, we don't agree with consumers paying an upfront \$200 co-payment. This is because:

- We don't agree that the co-payment will encourage consumers to make an informed choice about which battery they select as the co-payment is a very small proportion of the total battery cost. For other activities in the Energy Savings Scheme where the co-payment has been successful, the proportion of the co-payment made by consumers has been much higher relative to the cost of the energy savings equipment.
- The upfront co-payment will limit the types of business models and commercial arrangements that Accredited Certificate Providers (ACPs) can adopt to undertake this activity, including for example arrangements where a consumer pays a co-payment over time via electricity bills.

To better achieve the policy objectives of protecting consumers to make an informed choice about which battery product is appropriate for them we suggest that the Approved Battery List contain consumer facing information alongside the technical battery information and/or there be flexibility in the timing and way of when the co-payment is made by the consumer.

Eligibility requirements for BESS1 and BESS2

To ensure flexibility in the business models and commercial arrangements that ACPs establish to undertake BESS1 and BESS2 activities we support eligibility requirements that contemplate a scenario where a new battery is installed and then signed up to a demand response contract at the same time.

If strictly interpreted by the Regulator, the eligibility requirement in BESS2 that *"there must be an existing battery storage system installed at the NMI"* may invalidate a demand response contract signed prior to physical implementation of the battery at a site.

Further, the date from which Peak Reduction Certificates can be created (i.e., the Implementation Date) is defined for BESS2 as *"the date the contract between the Capacity Holder and the Demand Response Aggregator is signed..."*. Again, this doesn't contemplate a scenario where the paperwork supporting a combined BESS1 and BESS2 project (e.g. purchasing agreement, nomination form and demand response contract) is signed at the same time prior to physical installation of the battery.

Residential demand shifting and demand response through pool pumps

IntelliHub disagrees with the Office of Energy and Climate Change's (OECC) position that pool pump demand response and demand shifting should not be included as a PDRS activity. We support the development of a demand response and/or demand shifting Activity Definition for pool pumps.

IntelliHub has developed technology that enables demand response and demand shifting capabilities in any pool pump. Currently, IntelliHub is not able to participate in the demand savings Activity Definition SYS2 – *Replace an Existing Pool Pump with a High Efficiency Pool Pump*. This is because the technology we have (and are further developing) does not strictly fall under the definition and/or rely on the installation of high efficiency pool pumps to achieve peak demand savings.

IntelliHub's "Pooled" controller is an IoT device for monitoring and remote control of residential swimming pools. The technology controls swimming pool equipment and provides energy optimisation of pool equipment, chemical sensing, and remote-control functions that can be used to provide demand response and demand shifting.

We orchestrate, via a remote-control system, optimal times to operate the pool pumps and sanitation regimes. Sensors monitor pool chemistry (pH, salinity, ORP (sanitiser level), temperature and flow) and tell the technology when the pumps and sanitation equipment need to operate. Power consumption by connected devices is also monitored. In this way, pool pumps can be turned off or their operating times shifted in response to peak electricity demand.

The Pooled controller is currently installed at around 600 residential properties in NSW and is on IntelliHub's strategic roadmap to deploy at scale – targeting the 1.3 million swimming pools across Australia. By providing a financial incentive under the PDRS, deployment of our technology in NSW could be accelerated.

Importantly, our technology connects to any pool pump, notwithstanding whether the pool pump is a high efficiency pool pump. This means that any pool can be retrofitted with Pooled technology. This provides consumers with a cost-effective alternative to buying a new pool pump and avoids waste associated with the disposal of redundant pool pump equipment.

We would be pleased to provide OECC with more information about the Pooled technology to assist develop its policy position in relation to this activity.

Yours sincerely



Jonathan Hammond
Executive General Manager, Strategy and Corporate Development