

3 MAY 2024

## Flexible demand software to give power back to customers

On behalf of the Australian Government, the Australian Renewable Energy Agency (ARENA) has today announced \$942,944 to Birdwood Business Energy (Birdwood Energy) for the 'Flexible Report Card Platform' project which will help commercial and industrial (C&I) businesses realise their flexible demand potential.

Birdwood Energy's \$2.58 million project will design and deliver an application to inform C&I customers of potential flexible demand within their site aiming to identify a total 2 to 5 MW of total load flexibility during the trial.

The project is expected to address barriers to uptake of load flexibility in C&I sectors by reducing the cost to identify load flexibility opportunities by more than 50 per cent relative to current approaches. The innovative platform will also demonstrate the commercial viability of a streamlined process for developing report cards with identified opportunities for companies to invest in.

ARENA CEO Darren Miller said it was important that C&I businesses understood the benefits they could achieve with load flexibility.

"As the amount of renewable energy in our grid increases, flexible demand is vital to support power system reliability and security, and to reduce our reliance on thermal generation and storage."

"Through this project with Birdwood Energy, ARENA aims to help scale up flexible demand by identifying which proven technologies can help C&I business save on their energy bills and play a bigger role in the renewable energy transition.

"Solar hot water, heat pumps, HVAC and batteries are technologies available right now. Seeing all the information clearly on a report card can help businesses make an informed decision on when is the right time to purchase and integrate a new energy resource," Mr Miller said.

Birdwood Energy will manage the project and drive the platform development in partnership with the Australian National University (ANU) and the Energy Efficiency Council (EEC) and aims to deliver 100 report cards.

The software will allow users to collect and process site data, in turn providing them with information to support decision-making on implementing flexible demand activities. The report card categorises the types of flexibility, such as HVAC systems or cold storage facility loads, and the technology types to unlock them.

The report "[Valuing Load Flexibility in the NEM](#)", prepared for ARENA in 2022, estimated the potential value of load flexibility to customers in the National Electricity Market could be up to \$18 billion by 2040. Identification and implementation of load flexibility opportunities in the C&I sector is at a very early stage but is becoming increasingly important in the energy transition.

Birdwood Energy is a specialist renewable energy investor with \$2 billion of investments and projects, focused on energy infrastructure, smart optimisation, energy storage and distributed energy.

Birdwood's Managing Partner Scott McGregor said distributed energy which could get to up to 60 per cent of generation, is a faster, cheaper way to get to net zero.

"Unlocking flexible demand is a key component to fully utilise our existing distributed networks and bring energy cost savings to the C&I sector."

"Alongside our partners, the ANU who is leading algorithmic energy software development, and the EEC who is supporting engagement with the broader energy services sector, we will deliver a simple and

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engaging tool to allow businesses to embrace these opportunities,” Mr McGregor said.

### **Flexible Demand**

Flexible demand is the shifting of electrical usage to ease pressure on the grid. As variable renewable sources like wind and solar produce a greater share of Australia’s electricity generation, flexible demand solutions are required to help match up supply and demand.

Shifting demand away from peak times and reducing demand at critical times can complement energy storage and reduce the overall cost of energy and support integration of more renewables into the grid.

ARENA’s report [“The Role of Flexible Demand in Australia’s Energy Future”](#) identified potential sources of demand flexibility that included new retail commercial products such as energy-as-a-service, dynamic tariffs and demand-based market hedges, as well electrification and control of commercial and industrial loads such as heat pumps, electric furnaces and thermal storage for cold stores and commercial property.

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