



Media Release

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Solar and batteries powering Brisbane classroom

Brisbane high school students are being taught in Australia's first solar and battery powered portable classroom, as a trial of renewable classrooms expands to Queensland.

On behalf of the Australian Government, the Australian Renewable Energy Agency (ARENA) provided approximately \$370,000 to Hivve Technologies Pty Ltd to build three state-of-the-art pilot portable classrooms, including a prototype at Bracken Ridge State High School in Brisbane.

The Bracken Ridge portable classroom, developed in collaboration with Tesla, includes rooftop solar PV and a Tesla Powerwall 2 battery system that allows the classroom to operate 100 per cent off the electricity grid.

Hivve classrooms generate enough electricity to power themselves and a minimum of two other classrooms in a school, with excess power now able to be stored in the connected battery.

As part of the ARENA pilot, Hivve previously installed solar-powered classrooms in two NSW schools, St Christopher's Catholic Primary School in Sydney's south western suburb of Holsworthy and at Dapto High School in the Illawarra region.

Hivve classrooms feature energy efficient lighting, heating and air conditioning, and allow real-time monitoring of temperature, air quality, energy metering as well as solar generation, battery capacity to manage energy demand. An in-classroom dashboard provides real-time data that gives teachers control of the classroom environment.

A Tesla battery was also installed for six weeks at Dapto High School to test the potential for batteries to be incorporated into the classroom.

ARENA CEO Darren Miller said the successful Hivve trials in NSW and now Queensland open the door for more Australian schools to switch to renewable energy.

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“This solar-and-battery powered Hivve classroom at Bracken Ridge is both sustainable and self-sufficient as it powers itself while being completely off grid. The school avoids the significant upfront cost of grid connection while also saving on ongoing energy costs.

“Demand for energy at schools occurs during the school day, when the sun is shining. As such, there is a great opportunity to power classrooms via solar, backed up by battery storage,” Mr Miller said.

“Many schools on the Eastern seaboard are currently at capacity on grid connection. This Australian-developed solution could help schools reduce costs and emissions, while also reducing reliance and demand on the grid,” he said.

Hivve CEO David Wrench said: “We are greatly encouraged by the robust trial results from the three schools operating with Hivve classrooms which confirms this Australian-developed technology has now made the transition from an idea to a commercial reality.

“The Hivve classroom concept has the potential to be a game changer in how our children are educated, providing a completely sustainable solution by powering all its own infrastructure - including air conditioning - while also feeding energy back into the school to run other classrooms.

“ARENA has been the perfect partner for this initiative demonstrating the innovative thinking around traditional energy challenges this Government has been bringing,” he said.

The ARENA-funded pilot will run for 12 months, with the accumulated performance data used to demonstrate how renewable energy could power schools and reduce schools’ energy costs, as part of ARENA’s focus on delivering secure, reliable and affordable electricity.

Following the success of the trial, Hivve are now expecting to roll out their classrooms in NSW and are in discussion with other states.