

## GANNAWARRA ENERGY STORAGE SYSTEM

**Lead organisation:** Edify Energy  
**Size:** 25 MW / 50 MWh  
**ARENA funding:** \$25.0 million (with Victorian Government)  
**Total project cost:** \$34.3 million  
**Location:** Gannawarra, VIC

With ARENA's support, the Gannawarra Energy Storage System project is helping to demonstrate how battery storage can be fitted to an existing solar farm. It will help to pave the way for similar battery extensions to be made to the dozens of solar farms already built or underway in Australia.

The project is co-located with Edify Energy's 60 megawatt (DC) Gannawarra Solar Farm. As it involves the first solar farm of its size in Australia's electricity market to include a battery, the project will demonstrate how the combined technologies can provide flexible dispatchable energy and improve grid stability.

With very few projects of this nature in Australia, successful completion of the project will create investment confidence for similar projects in the future. It will also be the first retrofit of a battery to an existing or under-construction solar farm in Australia, the first battery integrated with renewables in Victoria, and among the first of its kind in Australia. It will also be among the largest integrated battery with renewables systems in the world.



## SIMPLY ENERGY VIRTUAL POWER PLANT

**Lead organisation:** Simply Energy  
**Size:** 6 MW storage + 2 MW demand response  
**ARENA funding:** \$7.7 million  
**Total project cost:** \$23.5 million  
**Location:** Adelaide, SA

A virtual power plant (VPP) is created by linking households with rooftop solar and battery storage to a central control system so that the benefits of renewable energy can be shared within that network or with the broader national grid.

ARENA has supported Simply Energy's VPP project to deliver up to 1200 Tesla Powerwall batteries to Adelaide households. The project will also install batteries in ten commercial businesses to give them the ability to participate in demand response activities.

This is the second VPP to be created in South Australia following the AGL VPP, which was also supported by ARENA. Households participating in the project will be able to use more of their solar energy, reducing their power costs and have backup power in the event of an outage.

They will also be able to participate in Greensync's innovative distributed energy exchange (deX), which was initially developed with ARENA's support. The deX online platform will provide an energy marketplace where electricity can be bought and sold by businesses, households, communities and power utilities.

By integrating the VPP with deX and linking it to the national grid, there will be lower demand for electricity at peak times, which can ease pressure on the grid and reduce network costs. Power companies will also have more electricity sources to draw on, which will improve grid security and power reliability.