Tesla battery to help solar power South Australia poultry farm

By Sophie Vorrath July 9, 2020 Battery/Storage, Policy, Solar 4



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AAM Investment Group

A 2.28MWh commercial-scale Tesla battery system added to a 1.4MW rooftop solar array will slash the grid electricity consumption of a South Australian poultry farm by more than 70 per cent, and its emissions by 62 per cent.

AAM Investment Group said on Wednesday that its Riverlands Free Range poultry complex near Blanchetown on the Murray River - Australia's second-largest poultry producer - had recently completed the installation of the lithium-ion battery system as part of a nearly \$5 million energy sustainability project.

AAMIG, which bought the South Australia chicken farm in April of 2018, says it believes that the Tesla battery is the largest of its kind on any commercially operating farm in Australia, with enough energy storage capacity to power the entire complex for about four hours every day.

(It can be difficult to verify these kinds of claims - in One Step Off The Grid's experience, such claims are regularly proven incorrect, with so much clean energy investment going on around the country. But compared to the commercial farm battery systems documented so far on this site, 2.2MWh seems to be the biggest. More on that below.)

The battery system was partly funded by a state government grant for \$1.36 million, provided under South Australia's Energy Productivity Program, designed to help businesses with big electricity costs.

Coupled with the solar - which was installed in early 2019 across the farm's extensive shed rooftops - the battery is estimated to save the massive agribusiness about \$635,000 a year in electricity costs.

"This project is yet another successful demonstration of how agricultural businesses can be highly innovative and play an important role in the entire solution of moving Australia to a low-carbon future," said AAMIG managing director Garry Edwards in a company statement.

"The battery lets us store and then use this energy at peak times in the afternoon or early morning, and to fill the battery from the network in times of low power pricing ... [thus] enabling the business to reduce and manage its exposure to the volatility of the wholesale energy market while simultaneously cutting demand on the South Australian energy network.

"...And I'm informed this is the largest battery energy storage installation on any commercially operating farm in Australia - which we're very pleased about," he told the Adelaide Advertiser in separate comments.

Edwards said the project was also a great example of collaboration between the government and the private sector to develop innovative solutions to benefit the agricultural industry, the environment and the broader community.

South Australia Energy and Mining Minister Dan van Holst Pellekaan said the grant scheme had successfully assisted many of the state's businesses to implement energy productivity and efficiency measures to both cut costs and emissions.

Other key delivery partners in the project included Energy Australia, Colby Phillips Advisory, Gem Energy, Tandem Energy, Dematec Automation and Electric Results, in addition to a significant involvement and commitment by the network provider, South Australian Power Network, AAMIG said.

The Riverlands farm - which helps to grows around 20 million free range and RSPCA-certified chickens a year for Ingham's - has also invested in building a solid waste composting facility onsite, to cut on-site truck movements at the farm by 87 per cent.

Battery storage is becoming an increasingly popular option for commercial farming businesses, as One Step Off The Grid has been observing. In September 2019, a Victorian apple farmer installed a 20kW/80kWh vanadium redox flow battery system to maximise its solar self-consumption and further reign in costs. And in February of the same year, Western Power announced plans to install a combination of solar and battery technology with a backup generator at 25 working farms on its network, ranging from less than 5kWh, to supply electric fences and dam pumps, to 50kWh for large-scale agricultural businesses.