Media Release

Tassie wind farm to trial grid stability services

The Australian Renewable Energy Agency (ARENA) has announced it will provide funding to Woolnorth’s 168MW Musselroe wind farm for a groundbreaking trial to investigate the economic and commercial potential of wind farms providing frequency control to stabilise the grid.

On behalf of the Australian Government, ARENA will provide $499,120 in grant funding towards the $1 million trial to test the technical capability of Frequency Control Ancillary Services (FCAS) but also test the commercial benefits going forward.

Traditionally provided only by coal, gas and hydro-electric power stations, frequency control and ancillary services are used by the Australian Energy Market Operator (AEMO) to maintain the frequency on the electrical system and provide a fast injection or reduction of energy to maintain grid stability.

The trial at Musselroe is the second trial to see if wind farms can provide FCAS. Last year, ARENA partnered with the Australian Energy Market Operator to deliver Australia’s first FCAS trial at Neoen’s Hornsdale wind farm in South Australia.

That initial trial began in December and has proven successful in proving that using wind farms to deliver FCAS is largely technically feasible, with the results to be released in the coming months.

This second study in Tasmania will also examine options to store surplus wind energy when constraints on the network prevent energy from being used.

Located in north east Tasmania, the Musselroe wind farm produces approximately 5 per cent of Tasmania’s electrical energy needs annually.

ARENA CEO Ivor Frischknecht said a successful trial at Musselroe could see FCAS be delivered by other Australian wind farms.

“Wind power is playing a big part in Australia’s transition to renewable energy and we want to explore how wind can provide essential grid stability services.

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These two trials are proofs of concepts that if successful will create new revenue streams for wind farms while also providing essential stability to the grid, he said.

“With the support of ARENA and AEMO, Hornsdale finished the live testing of FCAS last month. Now, this second trial at Musselroe will allow us to look not just at technical feasibility but also how this can provide a new revenue stream for wind farms,” he said.

“This trial will be able to answer for us the key question that so far hasn’t been answered; does it make economic and commercial sense for a wind farm to provide ancillary services and participate in the FCAS markets?

“It is hoped this will see many more wind farms beginning to help provide FCAS which batteries and solar farms may also be able to deliver,” he said.

General Manager of Woolnorth Wind Farm Holding, Stephen Ross said very few Australian wind farms provide the network support offered by FCAS.

“This project aims to identify the true capability of wind power to provide system support, how that might work and what benefit there would be in terms of reliability and security at local and system level,” Mr Ross said.

“This is an opportunity to prove that wind farms can contribute to the stability and reliability of the electricity network.”