

Article Information

Authors: Juniper Watson, Martin Lovell, Kathryn Walker, Oliver Radan

Service: Projects, Infrastructure & Construction

Sector: Energy & Resources, Power & Utilities, Renewables

Generator slapped with \$1.1 million in penalties for failing to obtain approval for the factory settings applied to its wind turbines

A recent Federal Court decision highlights the consequences faced by generators that fail to comply with the NER.

In *Australian Energy Regulator v Pacific Hydro Clements Gap Pty Ltd* [2021] FCA 733, the Federal Court of Australia issued \$1.1m in penalties to Pacific Hydro Clements Gap Pty Ltd (**Pacific Hydro**) for breaching the National Electricity Rules (**NER**) in relation to the Clements Gap Wind Farm. Specifically, the Court found that, by failing to obtain approval for the factory settings applied to the protection systems of a number of its generating units, Pacific Hydro contravened r 4.4.3 and cl S5.2.2 of the NER in the period between 6 August 2013 and 3 October 2016.

Facts

Under the NER, wind farm turbines must have the ability to continue operating during periods of voltage fluctuations. For this reason, each wind turbine at the Clements Gap Wind Farm has a “low voltage ride-through capability”, which is activated during voltage disturbances and allows the turbines to remain in service. However:

- generators must also, ‘provide any necessary automatically initiated protective device or systems to protect their plant and associated facilities against abnormal voltage and extreme frequency excursions of the power system’ (NER r 4.4.3); and
- any settings applied to such protective device or system must comply with cl S5.2.2, which provides that, a generator must not allow its generating unit to supply electricity to the power system without prior approval by the relevant Network Service Provider (**NSP**) and, where relevant, also by AEMO.

The turbines at the Clements Gap Wind Farm had a ‘repeat low voltage ride-through protection system’ (**Repeat LVRT Protection System**) which, when triggered would cause the turbine to cease generating so as to avoid the potential for damage to the generating units where multiple voltage disturbances occur in a short period of time.

The settings applied to the Repeat LVRT Protection Systems had not been approved by the relevant NSP (ElectraNet) or AEMO.

On 28 September 2016, a number of voltage disturbances within a short period of time triggered the Repeat LVRT Protection Systems applied to a number the wind turbines at the Clements Gap Wind Farm, causing those turbines to cease generating active power. Shortly afterwards, a widespread electricity blackout occurred across South Australia.

Although the proceedings were the result of the AER’s investigations in to South Australia’s Black System Event, in these proceedings, the AER did not press its pleaded allegation that the activation of the Repeat LVRT Protection Systems at the Clements Gap Wind Farm was a contributing cause of the blackout.

Following the blackout, Pacific Hydro reviewed the situation and only then did it become aware of the settings applied to the Repeat LVRT Protection Systems. Once aware, Pacific Hydro took prompt action to rectify the situation and this was taken into consideration by the Court in determining the appropriate penalty. However, the Court criticised Pacific Hydro’s failure to make any assessment of the wind turbines, which may have led to it identifying the presence of the settings applied to the Repeat LVRT Protection Systems with Justice White finding that Pacific Hydro’s, ‘use of non-

approved settings in the present case compromised AEMO's ability to discharge its responsibility because it meant that it was making important decisions concerning the secure operating limits of the power system on the basis of incomplete information'.

This is the third judgment of the Federal Court on proceedings commenced by the Australian Energy Regulator (**AER**) against operators of wind farms in South Australia over the SA 2016 Black System Event. To date over \$2.6 million in penalties have been issued against Snowtown Wind Farm Stage 2 Pty Ltd (in relation to the Snowtown 2 Wind Farm), HWF 1 Pty Ltd (in relation to the Hornsdale Wind Farm near Jamestown) and now Pacific Hydro Proceedings in relation to the Hallett Wind Farm are still ongoing and are expected to be decided in August.

These proceedings highlight the need for generators to have compliance programs in place to check their systems so as to avoid serious adverse consequences.

Key Takeaways

- Pacific Hydro has been ordered to pay \$1.1m in penalties following the state-wide blackout in South Australia in 2016.
- These are the third proceedings brought by the AER against wind farms owners in South Australia, with a fourth still on foot.