

MEDIA RELEASE

Wednesday, 19 October 2016



Update to preliminary operating incident report into the South Australian state-wide power outage

The Australian Energy Market Operator (AEMO) has today published an update to its 5 October 2016 preliminary operating incident report into the South Australian (SA) state-wide power outage (referred to as 'SA region Black System') that occurred on Wednesday, 28 September 2016.

This update reflects additional information based on further analysis as at 12 October 2016.

In this updated report, it is now known that five system faults occurred within a period of 88 seconds on 28 September 2016, leading to six voltage disturbances.

Data now shows that nine of the 13 wind farms online at the time of the event did not ride through the six voltage disturbances, resulting in a loss of 445 MW of generation. Preliminary discussions with wind farm operators suggest this inability to ride through all disturbances was due to 'voltage ride-through' settings set to disconnect or reduce turbine output when between three to six disturbances are detected within a defined time period.

Thermal generators remained connected up until the SA system disconnected from the remainder of the National Electricity Market (NEM). The Heywood Interconnector remained connected up until the sudden increase in electricity flow resulting from the loss of generation caused the automatic protection mechanism to disconnect the lines.

The two contracted SRAS suppliers both experienced difficulties in providing system restart services due to two separate faults. Both facilities successfully tested their restart capacities earlier this year, so AEMO will further explore the nature of the faults experienced on 28 September 2016.

Restoration of electricity load was able to commence within three hours of the Black System event, with all load that could be restored (approximately 80-90%) being restored within a further five hours. Following the construction of temporary towers, and the restoration of three of the four damaged transmission lines, ElectraNet was able to meet all power requirements in SA from late evening on 12 October 2016.

AEMO is continuing to consult with wind farm operators and wind turbine manufacturers to better understand the impact on the power system of their ride through settings. Several wind farms have already implemented revised settings allowing them to ride through a higher number of disturbances.

AEMO returned the SA spot market to normal operation at 23:30 (AEDT) on 11 October 2016, following the formal notification that the Ministerial direction to suspend the market had been revoked.

AEMO will present a further update ahead of the December COAG Energy Council meeting, and anticipates that a detailed report on the Black System event in SA, including final recommendations, will take up to six months to complete.

AEMO acknowledges and appreciates the significant work done by generators, network service providers and others to promptly provide the data used in its analysis to date.

To view the update to the preliminary operating incident report, please visit www.aemo.com.au

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ABOUT AEMO

AEMO is responsible for operating Australia's largest gas and electricity markets and power systems, including the National Electricity Market and interconnected power system in Australia's eastern and south-eastern seaboard, and the Wholesale Electricity Market and power system in Western Australia.

AEMO also operates the Victorian Declared Wholesale Gas Market and the Victorian gas transmission system; the wholesale gas Short Term Trading Market hubs in Adelaide, Sydney and Brisbane; the Wallumbilla Gas Supply Hub in Queensland; and the Moomba Gas Supply Hub in South Australia.

As Australia's independent energy markets and power systems operator, AEMO provides critical planning, forecasting and power systems security advice and services to deliver energy security for all Australians. For more information, head to www.aemo.com.au