



Review of the System Black Event in South Australia on 28 September 2016

AEMC update

This information sheet has been prepared to update stakeholders on the status of the AEMC's review of the system black event that occurred in South Australia on 28 September 2016 (AEMC review). It provides an update of the reviews and investigations completed or underway by various bodies in response to the event. It also invites stakeholder views, either through submissions or bi-lateral meetings, on the findings of these various reviews as they relate to the terms of reference for the AEMC review.

Overview

South Australia experienced a 'black system' event at 16:18 AEST on Wednesday 28 September 2016. In response, the Australian Energy Market Commission (AEMC or the Commission) has been tasked by the COAG Energy Council (the Council) to review the factors which contributed to the black system event.

The terms of reference for the review, received on 6 January 2017, direct the AEMC to build on the work conducted by the Australian Energy Regulator (AER) and the Australian Energy Market Operator (AEMO), focused on the compliance of market participants with requirements in the National Electricity Law (NEL) and National Electricity Rules (NER) and technical issues contributing to the event, respectively. The AEMC is required to provide a report to the Council within six months of the completion of both AEMO's investigation report and the AER's compliance report.

AEMO published its final report into the black system event in March 2017 (discussed further below). The AER is currently in the investigation phase of its compliance review and it is unclear when it will be in a position to publicly report on its findings. Given this, it is also unclear when the AEMC will be able to formally commence its review of the event.

In conducting its review, the Commission does not anticipate undertaking formal public consultation on the issues.¹ The key issues will have been comprehensively canvassed through the AEMO and AER processes, and through the various other reviews and investigations commissioned in response to the event and described in this note.

Instead, the Commission intends to rely on the information set out in the various reports published, and the submissions provided by stakeholders to the various reviews and investigations, to inform its consideration of the issues.

In light of this, and in preparation for the formal commencement of the AEMC review, the Commission invites stakeholder views on the findings of the reviews and investigations completed or underway by various bodies in response to the black system event, where:

- those findings relate to the terms of reference for the AEMC review, and
- those views have not already been captured through public submissions to the relevant review and/or investigation.

In addition, the Commission welcomes any requests for one-on-one meetings with the AEMC to discuss the facts, findings or conclusions set out in AEMO's investigation report, or any other report relevant to the event, where relevant to the AEMC review.

The remainder of this note provides a brief summary of the various reviews and investigations completed or underway in response to the event.

¹At this stage, the Commission does intend to consult on the recommendations developed through its review, primarily through the publication of a draft report approximately four months after the commencement of the review.

In line with the terms of reference, the AEMC will commence its review following publication by the AER of the findings of its compliance review. The AER's compliance review is currently underway

Related work

On Wednesday 28 September 2016 at 16:18 AEST, South Australia experienced a 'black system' event. A substantial program of reviews and investigations was commissioned in response to the event.

AEMO incident report

As required under clause 4.8.15 of the National Electricity Rules, AEMO undertook a technical review of the incident. Clause 3.14.4 of the NER also requires AEMO to conduct an investigation into the suspension of the spot market.

On 28 March 2017, AEMO published its fourth and final incident report for the event.² The final report outlines 19 recommendations aimed at collectively mitigating the risk of similar major supply disruptions occurring in South Australia and the rest of the National Electricity Market. The recommendations are aimed at:

- Reducing the risk of islanding of the South Australian region.
- Increasing the likelihood that, in the event of islanding, a stable electrical island can be sustained at least in part of SA.
- Improving the performance of the system restart process.
- Improving market and system operation processes required during periods of market suspension.

To date, AEMO has completed six of the 19 recommendations made following the black system event, with the remaining recommendations in progress or on track for completion by the end of this year.

AER compliance review

The AER has powers under Section 15 of the NEL to monitor compliance with, and investigate possible breaches of, the NEL and NER. The AER has commenced its examination of participant compliance and system operation both during and in the lead up to the black system event, and in the subsequent period of market suspension.³

The areas of focus for the AER investigation include (but are not limited to):

- Pre-event – the actions AEMO and ElectraNet leading up to the event, including the adequacy of existing processes and procedures for undertaking assessments of the risk to equipment and/or power system security.
- Event – whether equipment, including that of relevant wind farms, complied with performance standards required under the NER.
- System restoration – the arrangements in place to facilitate system restoration after a black system event, including the causes of issues experienced by system restart ancillary service providers and participants' compliance with AEMO instructions during the restoration period.
- Market suspension – given that the duration of the market suspension was longer than was contemplated during the design stage of the suspension arrangements, the AER is looking closely at this area and its impacts.

The AER is currently involved in the investigation stage of its review. The outcome of the AER's investigation may be the subject of a public report.

Independent Review into the Future Security of the National Electricity Market – Finkel Review

Following the event, the COAG Energy Council agreed to an independent review of the current state of the security and reliability of the National Electricity Market. The review was led by the Chief Scientist, Dr Alan Finkel AO.

The *Independent Review into the Future Security of the National Electricity Market – Blueprint for the Future* was published on 9 June 2017. This report sets out a package of policy recommendations which aim to deliver four key outcomes - increased security, future reliability, rewarding consumers and lower emissions - in light of the significant transition underway in the energy sector, including due to rapid technological change.

² AEMO, *Black System South Australia 28 September 2016*, Final Report, March 2017.

³ AER, *Quarterly Compliance Report: National Electricity and Gas Laws*, July - September 2016, p. 2.

On 20 June 2017, the Commonwealth Government announced its support for most of the 50 recommendations made in the Finkel Review. It has tasked the COAG Energy Council with advancing these recommendations.

ESCOSA transmission licence compliance review: ElectraNet

The Essential Services Commission of South Australia (ESCOSA) is responsible for licensing of the electricity transmission businesses in South Australia. As the licensing authority, the Commission has compliance and enforcement powers in relation to the performance of licensees.

Following the black system event, ESCOSA commenced a review of ElectraNet's regulatory compliance with the conditions of its licence and the relevant provisions of the Electricity Transmission Code. Specifically, ESCOSA sought to understand the course of events, ElectraNet's response and actions and to identify opportunities for improvements in customer outcomes.

ESCOSA published its final report on 23 June 2017.⁴ On the basis of available information, it concluded that ElectraNet remained compliant with the conditions of its licence and the Code. ESCOSA did, however, identify areas for improvement, to promote the long-term interests of consumers with regard to the price, reliability and quality of essential services.

South Australian Select Committee on the State-wide Electricity Blackout and Subsequent Power Outages

A South Australian Select Committee on the State-wide Electricity Blackout and Subsequent Power Outages was appointed on 16 November 2016 to inquire into the state-wide electricity blackout of Wednesday 28 September 2016 and subsequent power outages. This inquiry, which is ongoing, will consider matters which include the causes of the blackout, delays in recovering electricity supply to all parts of the state, credible warnings of the potential for such an event and costs to households, businesses and the South Australian economy as a whole due to the blackout.

The SA Select Committee is currently progressing the process of hearing from witnesses.

Business SA, Blackout Survey Results

Following the black system event on 28 September 2016, Business SA carried out a comprehensive survey of its members to better understand the impacts of the event on the business community.⁵ The survey formed the foundation of the Business SA submission to the SA Select Committee on the State-Wide Electricity Blackout and Subsequent Power Outages.

Business SA's survey estimated the cost to South Australian business of the blackout event at \$450 million (revised up from \$367 million).⁶ It noted that only 37 per cent of businesses had business interruption insurance and, of those, 54 per cent were not covered for any costs associated with the blackout. The survey was completed by 260 businesses including Arrium, Nyrstar, OzMinerals and BHP Billiton.

AEMC review

As noted above, the AEMC has been tasked by the COAG Energy Council to build on the work conducted by the AER and AEMO by reviewing the factors which contributed to the black system event experienced in South Australia on 28 September 2016.

The AEMC received the terms of reference for the review on 6 January 2017. In the letter accompanying the terms of reference, the Council asked the AEMC to advise on how it proposes to conduct the review. On 31 January 2017, the AEMC published a letter to the Council setting out its proposed approach. The approach includes a three-staged process as follows:⁷

1. **Develop a fact base** of the events of 28 September 2016. The AEMC does not possess information gathering powers such as those assigned to AEMO and the AER under the NEL. Consequently, the Commission will need to draw upon the incident reports prepared by AEMO and the findings of the AER's compliance investigation.

⁴ ESCOSA, *Transmission Licence Compliance Review - ElectraNet Pty Ltd, 28 September 2016 state-wide power system outage*, June 2017.

⁵ Business SA, *Blackout Survey Results, Understanding the effects of South Australia's State-wide blackout on Wednesday 28 September 2016*.

⁶ Updated in February 2017 due to a re-estimate of the impacts on BHP Billiton.

⁷ Available on the AEMC website: www.aemc.gov.au.

The AEMC invites stakeholder views, either through submissions or bilateral meetings, on the findings of the various reviews and investigations commissioned in response to the Black System event in South Australia on 28 September 2016

2. **Identify the issues.** The starting point for the Commission's assessment will be to consider the findings of AEMO and the AER. The Commission will also consider factors such as broader policy drivers and detailed operational arrangements, in addition to the frameworks specified in the NER.
3. **Develop recommendations** to address these issues. In doing so, the Commission will be guided by the National Electricity Objective.

For more information on the AEMC's proposed approach to its review, see the AEMC website: www.aemc.gov.au.

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