Legislative Assembly Committee on Environment and Planning - The electricity outages affecting Far West NSW in October 2024

Response from Liam Ryan, Advising Executive Director, to a Question on Notice from Ms Maryanne Stuart, MP

Question

What is the criteria for the energy provider telling you when there is a brownout or blackouts? For example, do they need to let you know if electricity is down for half an hour, or two hours, or what is the criteria for the department being notified?

Response

There are information notice and reporting requirements on different types of energy providers in the National Electricity Market which are relevant to unplanned power outages (i.e. blackouts). For the purposes of this question, this response is focussed on NSW transmission and distribution network services providers.

All three NSW distribution network service providers maintain websites which provide real time information about planned and unplanned outages impacting customers on their networks. This includes outages caused by faults on the transmission network.

Transmission network service providers provide information about planned outages which is published in the Australian Energy Market Operator's Network Outage Scheduler. Unplanned outages are monitored in real time by transmission network service providers and the market operator's control rooms and the market operator's website makes this information publicly available through market notices.

There are also proactive arrangements for informing the Department about significant power outages impacting customers.

The National Energy Market Emergency Powers Memorandum of Understanding between participating jurisdictions establishes a role of Jurisdictional Responsible Officer. This role is held by an employee at Transgrid, whose role is to communicate with the Jurisdictional Designated Officer,

held by a Departmental employee, about emerging and actual events impacting the operation of the power system. These roles coordinate real time information with the Australian Energy Market Operator (AEMO) according to the Power System Emergency Management Plan (not published).

There are five levels to a Power System Emergency Response under this plan. The Far West power outage was assessed at Level 2 – Local Emergency, which related to localised physical damage to infrastructure. In this instance the Department, Transgrid and AEMO coordinate information with one another to respond to the event.

The IPART Electricity Network Reporting Manual – Incident Reporting sets out the notification requirements for network operators. The incident category determines the notification and reporting obligations that apply.

Major Incidents require reporting within 24 hours to the Minister and IPART when:

- there are more than 5000 customers without power for more than 4 hours (distribution network), or where the transmission network experiences an outage amounting to more than 0.25 system minutes[1], or
- a disruption of greater than 2 hours where it applies to the functioning of significant community infrastructure, such as some hospitals, air transport systems and buildings with more than 5000 people.

Since the events in Far West NSW, the Department has engaged with network service providers to ensure email notification to the Minister includes relevant Department staff.

IPART submits an annual compliance report to the Minister on compliance with licence conditions. The compliance report also reports against each licensed network's reliability and performance condition. This is tabled in Parliament and then published on IPART's website. https://www.ipart.nsw.gov.au/sites/default/files/cm9_documents/Electricity-networks-reporting-manual-Incident-reporting-October-2024.PDF

In relation to the discussion around advance notice for power outages, the Energy and Utility Services Functional Area amplified messaging by Transgrid and Essential Energy of a planned outage on Sunday 20 October 2024. A further planned outage on Wednesday 23 October was communicated however was cancelled on 22 October.

[1] System Minutes is the sum of energy not supplied (in MWh) multiplied by 60, divided by peak demand (in MW). Full explanation see pg 37: AER Electricity transmission network service provider Service Target Performance Incentive Scheme

INQUIRY

Legislative Assembly Committee on Environment and Planning – The electricity outages affecting Far West NSW in October 2024

Answers to Supplementary Questions to Mr Liam Ryan and Mr Jamie Caldwell of the NSW Department of Climate Change, Energy, the Environment and Water

Hearing: 17 March 2025

Questions from the Legislative Assembly Committee on Environment and Planning

Question

1. During the hearing, we heard that there are various obligations under the broader electricity regulatory framework to report or notify agencies or the Minister of certain breaches, outages or safety incidents.

a. Can you identify what provisions of the National Electricity Law and Rules, as well as the NSW legal and regulatory framework, impose reporting obligations that might be relevant to a major transmission or distribution outage or disruption?

Answer:

National Electricity Rules (NER)

The NER requires AEMO to report on incidents that may cause major outages or disruptions relating to the transmission or distribution of electricity.

Under Chapter 3 – Market Rules:

- Network Service Providers are required to provide AEMO with annual information relating to their expected network capability under normal, outage and emergency conditions (cl 3.13.3(f)(1), NERs).
- AEMO is required to report on directions that it issues, within 40 calendar weeks of their revocation (cl 3.13.6A(a), NERs). These directions are issued under cl 4.8.9(a) of the NERs, and allow AEMO to require a Registered Participant to do any act or thing if AEMO is satisfied that that is necessary to maintain or re-establish the power system to a proper operating state – for instance, in response to an outage or disruption to transmission or distribution of electricity. The NERs require the report on a direction to include certain information, outlining the circumstances that gave rise to such a direction, the details of the changes in dispatch outcomes due to the direction and processes implemented by AEMO to issue the direction (as well as other information) (cl 3.13.6A(a), NERs).
- If AEMO decides to suspend the spot market due to a 'black system' (being the absence of voltage on all or a significant part of the transmission system with a region during a major supply disruption) (cl 3.14.3(a)(1), NERs), it is required to conduct a review of such a suspension (cl 3.14.3(c), NERs), to include in a publicly available report that includes specific details relating to any compensation costs payable to Market Customers (cl 3.14.3(d), NERs). AEMO also has to provide to any registered participant information or reports relating to the performance of the registered participant's equipment during a spot market suspension (cl 3.14.3(g), NERs).

- If AEMO decides to suspend the market by a declaration (due to an outage or disruption), it must undertake an investigation with 10 business days to examine and report on the reason for the suspension and the impact of that suspension on the spot market – the report is publicly available and available to registered participants as soon as practicable (cl 3.14.4(g), NERs).

Under Chapter 4 – Power System Security:

- AEMO is required to notify market participants when it identifies a major transmission or distribution outage is likely to occur due to severe weather events (cl 4.2.3A(c), NERs); classification of whether this event is likely to trigger a contingency event, that is an event that AEMO expects would likely involve the failure or removal form operational service of plant or the sudden or unplanned change to the level of output of power flow of plant (with criteria under cl 4.2.3B). . This notification must be updated by AEMO as it becomes aware of new information material to its consideration of whether a contingency event will be triggered (cl 4.2.3A(d), NERs).
- AEMO issues a report every six months which includes reasons for all decisions to reclassify non-credible contingency events to be credible contingency events (under cl 4.2.3A(g)) As soon as reasonably practicable after an event that AEMO reclassified to be a credible contingency event AEMO must prepare and public a report with information for Market Participants about the basis on which AEMO determined the measures implemented (cl 4.2.3A(j), NERs).
- AEMO is required to notify a Registered Participant where there is a major supply disruption that may affect that Registered Participant (cl 4.8.14, NERs).
- Where an outage or disruption has amounted to an operating incident under cl 4.8.15(a) of the NERs, AEMO is required to prepare a report on the review of the incident that must be made available to Registered Participants and the general public (cl 4.8.15(c), NERs). If AEMO requires a Registered Participant to provide information relating to the performance of equipment during a reviewable operating incident, the Registered Participant must provide that information (cl 4.8.15(f), NERs).
- AEMO is also required to publish a weekly report that relates to frequency performance outcomes for the week prior, which should reasonably refer to any major disruption or outage (cl 4.8.16(a), NERs). AEMO is also required to report a quarterly report of power system frequency, which must also include a list of any reviewable operating incidents that affected power system frequency (cl 4.8.16(b)(5), NERs).

Electricity Supply Act 1995 **(ES Act)**

A distributor or transmission operator must notify the Independent Pricing and Regulatory Tribunal (**IPART**) within 7 days of a serious electricity work accident occurring (s 63R).

Network operators may be granted a licence under the ES Act by the Minister (ss 14, 93A(2)). Schedule 2 provides for the kinds of conditions that these licences can prescribe on its holders (Sch 2, cl 6, ES Act), including performance standards for the reliability of the operation of a transmission system, as well as monitoring and reporting for reliability performance (Sch 2, cl 6(5)(a), ES Act).

Licensed network operators in NSW are:

- Distribution network service providers (**DNSPs**) Ausgrid; Endeavour Energy; Essential Energy; and
- Transmission network service providers (**TNSPs**)Transgrid; and ACEREZ (noting that ACEREZ is not currently energised).

All network operators must comply with reporting manuals issued by IPART, which includes:

- Electricity Networks Reporting Manual – Incident Reporting (October 2024).
- Electricity Networks Reporting Manual – Safety management system performance measurement (October 2024).

Licensed networks must also comply with the following, issued by IPART

- Electricity Networks Reporting Manual - Distribution reliability and performance reporting (May 2024).
- Electricity Networks Reporting Manual - Transmission reliability and performance standard – Reliability standard reset reporting (March 2019).
- Electricity Networks Reporting Manual - Transmission reliability standard – Annual Reporting and additional information requirements (March 2019).

Electricity Supply (Safety and Network Management) Regulation 2014

IPART may, by written notice to the network operator, require the provision of information relating to any injury, incident, system failure or other matter relating to the network operator's transmission or distribution system (cl 42).

Question
1b. Is there any explicit regulatory requirements for Transgrid to proactively communicate with government agencies, non-government organisations and communities during an electricity supply emergency?

There are information notice and reporting requirements on different types of energy providers in the National Electricity Market which are relevant to electricity supply emergencies.

Transgrid, as the transmission network service provider, must provide information about planned outages which is published in AEMO's Network Outage Scheduler. Unplanned outages are monitored in real time by transmission network service provider and

AEMO's control rooms and AEMO's website makes this information publicly available through market notices.

There are also proactive voluntary arrangements for informing DCCEEW about significant power outages impacting customers.

The National Electricity Market Emergency Powers Memorandum of Understanding between participating jurisdictions establishes the role of Jurisdictional Responsible Officer. This role, held by an employee at Transgrid, is to communicate with the Jurisdictional Designated Officer, held by a DCCEEW employee, about emerging and actual events impacting the operation of the power system. These roles coordinate real time information with AEMO according to the Power System Emergency Management Plan (not published).

The IPART Electricity Network Reporting Manual – Incident Reporting sets out the notification requirements for network operators. The incident category determines the notification and reporting obligations that apply.

Major Incidents require reporting within 24 hours to the Minister and IPART when:

- there are more than 5000 customers without power for more than 4 hours (distribution network), or where the transmission network experiences an outage amounting to more than 0.25 system minutes , or
- a disruption of greater than 2 hours where it applies to the functioning of significant community infrastructure, such as some hospitals, air transport systems and buildings with more than 5000 people.

Since the events in Far West NSW, DCCEEW has engaged with network service providers to ensure email notification to the Minister includes relevant DCCEEW staff.

2. Page 14 of the subplan states that both the Functional Area and Department will 'participate in state-level all hazards community engagement programs to help prepare the community for significant events such as electricity outages.' However, we heard from residents in the affected region, particularly in the remote towns outside Broken Hill, that they were confused about who had lead responsibility for responding to the emergency. Many commented that they did not believe there were applicable emergency management plans for their towns.

2a. Can you advise if there has been any engagement with the community since to improve resilience, per the subplan?

Answer:

Both the Energy and Utilities Functional Area (EUSFA) team and DCCEEW remain available to participate in any state-level all hazards community engagement programs to help prepare the community for significant events such as electricity outages.

DCCEEW attends at Regional Emergency Management Committees (REMC), in person and virtually, to support community resilience. At the most recent Far West REMC

virtually on 25 February 2025, EUSFA presented two factsheets, that were informed by the recent events. The first fact sheet was on electricity terminology. The second fact sheet outlined the National Electricity Law definition of Life Support Customers and captured the proposed rule changes put to AEMC. It also outlines the current limitations of the law, to ensure an up to date and effective life support customer list that allows for customer triaging.

2b. Are there any plans for training, or engagement to improve the awareness and preparedness of these communities ahead of future emergencies?

Answer:

While participation in state-level all hazards community engagement programs is appropriate, local level training and engagement with the general community is outside the remit of the Energy and Utility Sub Plan (EUSPLAN) and sits more appropriately with electricity distribution network providers and Local Emergency Management Committees. EUSFA continues to support the community through these partner organisations. There are resources available from DCCEEW, DNSPs and other partners including as an example, the following,

DCCEEW - https://www.energy.nsw.gov.au/households/guides-and-helpful-advice-households/what-power-outage-and-what-do

Essential Energy - https://www.essentialenergy.com.au/outages-and-faults/outage-tips#:~:text=Tips%20to%20remember%20during%20power%20outages&text=switch%20off%20stove%20hotplates%2C%20ovens,turn%20off%20and%20back%20on.

EUSFA procedure is to commission “after action” reviews, and cascade learnings to the eleven REMCs, which have attendance from the Local Emergency Management Committees. The after action review of the outages in the Far West is expected to be completed in the near future.

3. Page 14 of subplan mentions that the Energy Utility Services Functional Area (EUSFA) and the Department will 'assist other agencies… to conduct exercises to rehearse implementation and effectiveness of related plans'. In light of the recent outages, are there any plans to conduct such training with local agencies?

Answer:

The EUSFA team facilitated an annual exercise for the emergency management community, inclusive of emergency services and industry partners on 20 November 2024. In 2025, EUSFA has planned four exercises with three exercises being focused on an industry sector within the responsibility of EUSFA. EUSFA also attends and participates in exercises run by other parties including industry participants and local and regional emergency management committees.

The EUSFAC is a member of the Premier’s Department Capability Development Subcommittee and will participate in the State Emergency Risk and Capability

Assessment (SERCA) in the four state workshops, and where practicable, some of the 12 region-based workshops.

EUSFA has and will continue to support multiple local and reginal emergency management committees with technical expertise, exercise development and participation for energy and other related hazard exercises which have energy impacts and consequences.

4. At the hearing, we heard about the effectiveness of the Public Information Functional Service Area during the outages.

4a. The subplan states that the Department's media play a role in control and coordination by managing public information. Is this control and coordination role performed through the PIFAC?

Answer:

DCCEEW's media, and other communications professionals supported EUSFA and were engaged and connect to the PIFAC, in addition to the media and communications teams in both Transgrid and Essential Energy. The first collaboration meeting was on Friday 18 October, which brought together PIFAC, Transgrid, Essential Energy, the Department of Premier and Cabinet, DCCEEW. An action from the initial meeting was the creation of a WhatsApp group, to facilitate real time coordination of messaging as the event entered a weekend, with the next meeting to be held on Monday 21 October. In the evening on Friday 18 October, the WhatsApp group was able to share the publications of an update to the DCCEEW website.

PIFAC was involved in amplifying information to the wider community, including the use of Police Media's Facebook Pages, such as Barrier Police District.

4b. Can you explain how information is coordinated through the PIFAC?

4c. Is all communication regarding an emergency which is delivered by a government agency or organisation involved in the emergency response coordinated through PIFAC?

Answer:

The Public Information Services Plan sets out the arrangements for the PIFAC to coordinate public information services between all agencies during emergencies across the Prevention, Preparation, Response and Recovery (PPRR) cycle. (https://www.nsw.gov.au/sites/default/files/noindex/2024-07/Public%20Information%20Services%20Supporting%20Plan.pdf)

In the Far West event, PIFAC coordinated information from all functional areas and emergency services organisations and circulated the consolidated document to all stakeholders. PIFAC was also included in DCCEEW communications meetings, and a text message group, to ensure they had the most up to date information across a volatile event.

4d. Can you provide information about the activation of the energy emergency communication response?

Answer:

The State Electricity Supply Emergency Sub Plan captures the operational communication between a range of entities, and using a range of communication modalities, to reflect the anticipated interruption to some communications channels during a considerable outage. The use of mobile phone calls, text messages and emails were used to communicate between industry, the emergency services organisations, the State Emergency Operations Controller, and the industry stakeholders, predominantly Essential Energy and Transgrid.

With respects to communication to the wider public and community, there were a range of teams within DCCEEW who supported the following measures:

- Within the first 24 hours, a dedicated emergency webpage was launched which became the primary source of information for Far West communities.
- A fast-tracked, multi-channel advertising campaign was conducted, which included 168 radio spots across the three Far West commercial stations and a full-page press advertisement in the Broken Hill Times.
- A paid and organic social media campaign.
- Extensive media coverage which included daily on-the-ground press conferences in Broken Hill.

The NSW Reconstruction Authority informed households of support available through outreach to outer suburbs in Broken Hill and surrounding communities via social and mainstream media and the distribution of flyers and posters in key locations.

In addition, electricity providers maintain outage data on their websites, which is normally accessed by searching for outages for a specific address.

Essential Energy directly contacted life support customers without power and where there were life sustaining energy needs, loaned small generators to these customers.

5. From our conversations with affected community members in the remote towns outside Broken Hill, it appears that power outages are not uncommon in the region but few know what the plans are or where to go to in an emergency. What outreach did the Department undertake in these communities?

Answer:

Liam Ryan, JSSC and Incident Controller for the event, and Jamie Caldwell as EUSFAC and Combat Agency Controller for the event, accompanied Minister Sharpe to visit communities and local emergency management teams across the Far West including Broken Hill, Tibooburra, Milparinka, Packsaddle, Menindee, Wilcannia, Whitecliffs and Silverton. This included hearing first hand accounts form the impacted communities and

providing authoritative information about the nature of the power outages. The team remained in Broken Hill until the temporary towers were in place and there was an agreed plan to re-energise the Far West.

As part of the after action review of this event, DCCEEW and the independent reviewers are consulting with the local emergency management committees across the Far West.

DCCEEW is working with Essential Energy and Transgrid to understand their planned microgrid projects and to identify what support from Government could accelerate these works. DCCEEW will continue to consider measures to improve resilience across these communities including enabling those communities to better access the Government's existing clean energy programs.