

Response to Questions on Notice

2 April 2025

This document provides responses to questions taken on notice by IPART witnesses Jonathan Coppel (Tribunal Member), Andrew Nicholls (Chief Executive Officer) and Kelly Kwan (Executive Director, Regulation & Compliance) who appeared at the hearing on 17 March 2025 for the Legislative Assembly Committee on Environment and Planning's inquiry into the electricity outages affecting Far West NSW in October 2024.

1.1 Question on Notice 1

Mrs SALLY QUINNELL: I don't really know who I'm asking this to, so please excuse my ignorance, but we have heard that power outages in certain areas, such as Tibooburra, Menindee, Wilcannia, White Cliffs, are frequent. In fact, one witness provided information half jokingly that on a Friday afternoon you know it's 2 p.m., because the power goes out. Is that something that you're aware of being a regular occurrence?

JONATHAN COPPEL: The short answer is no, I'm not aware that it's a regular occurrence. But when I was in Broken Hill and in the surrounding area in late October, we did hear about the impacts of power outages in a general sense, and the consequences that can stem from that, both economic and also health-related risks.

ANDREW NICHOLLS: It's a question that we might take on notice. We receive reporting from Transgrid, but also each of the distribution networks around outages. For clarification, outages can occur through the distribution networks—often more frequently, in fact, than the transmission networks—just because of the nature of the way those distribution networks are set up. So it's possible that some of those outages may be through distribution as much as transmission. So I don't have that information in front of me, but I'm happy to take on notice what we're aware of.

1.2 IPART response

IPART receives reports of individual outages from network operators when an outage event meets the requirements for reporting set out in the *Incident Reporting - Electricity Networks Reporting Manual* (Incident Reporting Manual). Licensed network operators are required to comply with the Incident Reporting Manual as a condition of their licence.^a

IPART does not receive reports of individual outages that do not meet the thresholds for reporting under the Incident Reporting Manual (see Table 2 in Section 1.4 for a description of the thresholds for reporting reliability and power quality incidents). There may be outages affecting customers in Broken Hill and/or surrounding areas that were not reported to IPART because they do not meet the thresholds for reporting (e.g. due to duration or number of customers affected).

We have reviewed the incident reporting data provided to us by the licensed network operators from 2019 onwards and have collated all incident reports IPART has received relating to outages affecting Broken Hill and surrounding areas (including Tibooburra, Menindee, Wilcannia and White Cliffs) in Table 1 below.

^a The licensed network operators are Ausgrid, ACERZ, Endeavour Energy, Essential Energy and Transgrid.

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present. We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

In some cases outages have been reported where the cumulation of outages across several parts of Essential Energy's network, including Broken Hill and/or surrounding areas, results in the reporting thresholds being met. In these cases we have relied on high level outage maps provided by Essential Energy in its reports which indicate areas around Broken Hill were affected.

Table 1 Outage reports affecting Broken Hill and surrounding areas

Date & category	Network operator	Relevance	Reported cause
17 May 2019 Cat 2 – Incident	Transgrid	Outage on transmission network supplying Broken Hill and surrounding areas	The 220kV busbar tripped at Broken Hill causing circuit breakers to open. This resulted in Broken Hill Mines losing supply for an extended period. Protection relay designed to prevent operation in certain circumstances was not operating correctly.
28 August 2019 Cat 2 – Incident	Transgrid	Outage on transmission network supplying Broken Hill and surrounding areas	Faulty 22kV circuit breaker caused busbar section to trip at Broken Hill substation.
25 July 2022 Cat 1 – Major incident	Transgrid	Outage on transmission network supplying Broken Hill and surrounding areas	A failed disconnecter at Buronga switching station tripped the busbar protection resulting in widespread outages impacting up to 14,000 customers for approximately 4 hours.
12 November 2022 Cat 2 – Incident	Essential Energy	Outage map provided by network operator indicates outage affected Broken Hill or surrounding areas	Widespread storms across the Northern Rivers and Far West of NSW. Severe weather with high winds impacted the network infrastructure leading to a number of extended unplanned outages in the Tibooburra, Wilcannia, Menindee, and Sunset Strip areas.
14 November 2022 Cat 1 - Major incident	Essential Energy	Outage map provided by network operator indicates outage affected Broken Hill or surrounding areas	A widespread storm with high winds and rainfall impacted large parts of the Essential Energy network. The damage to the network caused loss of supply to areas including on the North Coast, Mudgee, Molong, and Manildra.
5 November 2023 Cat 1 - Major incident	Transgrid	Outage on transmission network supplying Broken Hill and surrounding areas	Energy Not Served (ENS) event at Broken Hill >0.05 system minutes (potentially >0.25 system minutes). During planned outage of X2 line, both gas turbine backup generators tripped.
16 October 2024 Cat 1 - Major incident	Transgrid	Outage on transmission network supplying Broken Hill and surrounding areas	Energy Not Served (ENS) event at Broken hill >0.5 system minutes. Loss of X2 transmission line to Broken Hill due significant weather event. Initial investigations indicated that 7 transmission towers had collapsed.
17 October 2024 Cat 1 - Major incident	Essential Energy	Outage on transmission network supplying Broken Hill and surrounding areas	Storm impacts on the Transgrid network in the Broken Hill area resulted in >5000 customers off for >4hrs. Note: This is the same incident reported by Transgrid in the row above.
20 October 2024 Cat 1 - Major incident	Essential Energy	Outage on transmission network supplying Broken Hill and surrounding areas	Ongoing issues on Transgrid network in the Broken Hill area resulted in >5000 customers off for >4hrs.

Date & category	Network operator	Relevance	Reported cause
21 October 2024 Cat 1 - Major incident	Essential Energy	Outage map provided by network operator indicates outage affected Broken Hill or surrounding areas	Transgrid generator failure in the Broken Hill area resulted in >5000 customers off for >4hrs.
15 January 2025 Cat 1 - Major incident	Essential Energy	Outage map provided by network operator indicates outage affected Broken Hill or surrounding areas	Storms across NSW resulted in >5000 customers off for >4hrs.

1.3 Question on Notice 2

Ms MARYANNE STUART: We spoke before about the electricity companies having to tell you when there has been a blackout. Is there criteria—for example, if it goes out for five minutes they don't need to tell you, but if it goes out for half an hour they need to tell you?

KELLY KWAN: We have different incident categories. I'd probably have to take the detail on notice. We have different—if it's a major incident or minor, et cetera, there are some thresholds, but I'll take on notice the detail around that.

1.4 IPART response

Licensed network operators must notify IPART, and in some cases other persons, of incidents that meet the reporting thresholds of the following four incident categories in the *Incident Reporting - Electricity Networks Reporting Manual* (Incident Reporting Manual):

1. Major Incident
2. Incident
3. Serious Electricity Works Accident – other
4. Significant near miss

Categories 3 and 4, and some events which must be reported for categories 1 and 2, relate to safety incidents (such as injuries to workers or members of the public) or damage to property. All network operators within NSW (whether licensed or unlicensed) also have reporting obligations under the *Electricity Supply Act 1995* (NSW) in relation to serious electricity works accidents.^b

Depending on the event category, up to 3 stages may apply to an incident report:

- Stage 1: The initial report provides basic information regarding the event.
- Stage 2: The interim report provides factual information regarding the event, including consequences of the incident and incident management/recovery steps (where known).
- Stage 3: The final report provides details surrounding the event and subsequent investigations, including causal information and management review outcomes.

^b Serious electricity works accidents are defined as accidents "in which electricity works are involved, and as a consequence of which a person dies or suffers permanent disability, is hospitalised, receives treatment from a health practitioner or is unable to attend work for any period of time".

Category 1 (Major Incident) and Category 2 (Incident) reportable incidents relating to reliability and power quality are summarised in Table 2 below. For further detail please see Appendix A of the Incident Reporting Manual.

Table 2 Reporting requirements for reliability and power quality incidents

Incident category	Reportable incidents	Timing and recipient of report
1. Major Incident	<p>All network operators</p> <ul style="list-style-type: none"> Where a state of emergency has been declared under the <i>State Emergency and Rescue Management Act 1989</i> (NSW) due to the impact of an outage, or the cause of the state of emergency places the network at risk of loss of supply/failure. Where the network operator has classified it as a significant outage (as part of their electricity network safety management system or incident management system) due to adverse impact or disruption to the community. Where a reliability or power quality issue resulted in a disruption, for greater than 2 hours, to the normal functioning of significant community infrastructure.¹ <p>Distribution An interruption > 5000 customers for > 4 hours.</p> <p>Transmission An interruption amounting to >0.25 System Minutes.²</p>	<p>Minister for Energy's Office: within 24 hours</p> <p>IPART:</p> <ul style="list-style-type: none"> Where significant community infrastructure affected: <ul style="list-style-type: none"> Stage 1: within 2 business days Stage 2: within 14 calendar days Stage 3: within 90 calendar days Where significant community infrastructure not affected: <ul style="list-style-type: none"> Combined Stage 1 and 2: within 14 calendar days Stage 3: within 90 calendar days
2. Incident	<p>All network operators</p> <ul style="list-style-type: none"> An outage that has contributed to the declaration of, or resulted from, a Major Event Day (MED).³ Note that all outages related to a declared MED will be regarded as a single incident. <p>Transmission An interruption amounting to >0.05 System Minutes.</p>	<p>IPART:</p> <ul style="list-style-type: none"> Combined Stage 1 and 2: within 14 calendar days Stage 3: within 90 calendar days

1. Examples of significant community infrastructure include peer group A1, A2, A3 and B hospitals, road tunnels on motorways that have emergency evacuation systems, rail and air transport systems where travel is affected, events and buildings where greater than 5000 people could be affected by an outage, and other community infrastructure determined by the network operator to be of National, State or Regional significance.

2. A System Minute is a metric used to quantify the severity of supply interruptions on a transmission network. It represents the amount of energy not supplied during an outage as a proportion of the system's peak demand. System Minutes must be calculated in accordance with the loss of supply event frequency parameter applicable to the transmission operator in terms of the current Australian Energy Regulator Service target performance incentive scheme (STPIS) determination.

3. Major Event Days occur when the daily total system SAIDI value exceeds a threshold calculated using a 5-year average of a network operator's SAIDI performance data. SAIDI or System Average Interruption Duration Index is a measure of the average time each customer experiences an outage over a given period.

Response to supplementary questions

3 April 2025

This document provides a response to the Legislative Assembly Committee on Environment and Planning's supplementary questions for IPART witnesses Jonathan Coppel (Tribunal Member), Andrew Nicholls (Chief Executive Officer) and Kelly Kwan (Executive Director, Regulation & Compliance) who appeared at the hearing on 17 March 2025 for the inquiry into the electricity outages affecting Far West NSW in October 2024.

1 Question 1

The Committee acknowledges that IPART has an active investigation with respect to Transgrid's compliance. Has either regulator received any reports or concerns about Essential Energy's compliance, noting that there were also issues with their downstream distribution of energy from Broken Hill to the remote towns in the region?

IPART has not received any reports or concerns about Essential Energy's compliance with its obligations in connection with the outages affecting Far West NSW in October 2024.

While Transgrid is the primary focus of IPART's investigation, IPART is also considering whether Essential Energy has complied with its regulatory obligations as part of the investigation.

2 Question 2

Is there currently any regulatory requirement that a network service provider proactively notify any regulator or government agency of a decision which could impede on its ability to meet a required level of redundancy during a contingency event which impacts system security?

a. Would you support amendments to the existing regulatory framework that would require network service providers to proactively notify IPART about any significant unplanned loss of service or operational decisions which would impact the effective implementation of existing redundancy arrangements?

Licensed network operators (ACERZ, Ausgrid, Endeavour Energy, Essential Energy and Transgrid) have the following reporting obligations relevant to the reliability of their networks:

- Licensed network operators must notify IPART of reliability and power quality incidents in accordance with IPART's [Electricity Networks Incident Reporting Manual](#). Major incidents must also be reported to the Minister for Energy within 24 hours. The response to Question on Notice Number 2, submitted to the Committee under separate cover, provides details of the incident reporting categories and timeframes for reporting.
- Licensed network operators must also annually report on their compliance with the reliability and performance standards in their licence.

Transgrid's licence also provides flexibility for Transgrid to submit to IPART a plan for altering the redundancy or expected unserved energy levels at a bulk supply point (these are typically substations), if it identifies a need for doing so. For example, because it considers it will be unable to meet the standard for a specified period.

The plan must be likely to provide a greater net benefit than compliance with the relevant standard and, in the case of expected unserved energy, there must be no material reduction.

If the Tribunal is satisfied these requirements are met, then Transgrid is not required to comply with the relevant standard in relation to the bulk supply point and must implement the plan.

IPART is considering as part of its investigation whether to recommend changes to the regulatory framework for consideration by the NSW Government, noting that licences including reliability requirements are issued by the Minister for Energy on the recommendation of IPART.

IPART will also consider as part of the investigation whether to make changes to the Reporting Manuals it issues, and which each licensed network operator is required to comply with as a condition of their licence. The decisions to recommend changes to the regulatory framework or to make changes to the Reporting Manuals are decisions for the Tribunal.

3 Question 3

During the hearing, we heard that IPART are considering whether improvements can be made to its regulatory and compliance approach. Can you elaborate on what improvements are being considered, and what gaps in IPART's regulatory and compliance approach have been identified?

These matters are still under investigation and the Tribunal has not made any findings yet, as outlined in greater detail in response to Question 2.

4 Question 4

We note that the AEMC is currently considering draft NER amendments to include distribution network resilience in the NER. Does the electricity regulatory framework in NSW impose any requirements for considering distribution network resilience?

Under the current NSW framework, licensed distributors must maintain network resilience to meet reliability, safety and energy security obligations imposed via legislation, licences and other statutory instruments:

- Each [distributor's licence](#)^a contains conditions that set out reliability and performance standards that require the distributor to identify components (feeders) in its network that fail to meet reliability standards and take all reasonable steps to improve the reliability and performance of the network component.
- Each distributor's licence also requires the distributor to calculate Major Event Days (MEDs) and IPART's Electricity Incident Report Manual requires distributors to provide IPART with an incident report for each MED.^b

In IPART's [Review of Electricity Distributions Standards](#) completed in 2021 the then Tribunal recommended that the requirement to calculate MEDs remain in each distributor's licence as it encourages networks to manage and improve network resilience to factors such as climate change and extreme weather events.^c The Minister agreed with the then Tribunal's recommendation.

- The [Electricity Supply \(Safety and Network Management\) Regulation 2014 \(NSW\)](#) requires all distributors and transmission operators (whether licensed or unlicensed) to implement a safety management system that deals with the safety and reliability of their network. Network resilience is a necessary consideration when network operators identify risks, causes and mitigative actions to address loss of supply and reliability on their networks.

IPART's regulation of these obligations includes a focus on network resilience, for example, by directing audits of management of safety risks which consider among other things, the impacts of climate change on safe operation of networks.

There is no standalone requirement under the current framework requiring distributors to consider network resilience separately to the above safety and reliability obligations.

^a The licensed distribution network operators are Ausgrid, Endeavour Energy and Essential Energy.

^b Major Event Days occur when the daily total System Average Interruption Duration Index (SAIDI) value exceeds a threshold calculated using a 5-year average of a network operator's SAIDI performance data. SAIDI is a measure of the average time each customer experiences an outage over a given period.

^c IPART, [Review of Electricity Distributions Standards - Final Report](#), May 2021, p.21