



**TRANSPOWER**

*Keeping the energy flowing*

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12 May 2025

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### **Consultation Paper – 26 July 2024 under-frequency event (UFE)**

We appreciate the opportunity to respond to the Authority's consultation paper, "*Draft determination of causer: 26 July 2024 under-frequency event*," published on 10 April 2025.

Based on the strict definition of "causer" in the Code, out of the two parties considered as possible causers in the system operator's report (Transpower and Contact Energy) we reluctantly concur with the Authority's draft determination identifying the grid owner as the causer, and acknowledge the megawatts lost during the event. We consider that, Transpower is more likely to be regarded as the "causer" for the reasons set out in our response to consultation question (1) in the appendix.

However, while we reluctantly accept the draft determination, we believe that such a decision sends a message to generators that they will be absolved of responsibility for a failure to have appropriate protection settings in place where the Code does not mandate such protection settings, even though good electricity industry practice (GEIP) would indicate appropriate protection settings could have and should have been implemented.

The system operator's report concludes that because there are currently no mandatory standards for appropriate protection setup to reduce the impact of earth faults, Contact Energy were not required to have protection settings that would have avoided the tripping of the Clyde units.

With respect, we consider that to be an oversimplification of the obligations of generators. It suggests protection settings are only required if mandated by the Code. Such a conclusion ignores the relevance and importance of GEIP.

Direct current (DC) earth faults are known and foreseeable occurrences, and protection systems should be designed to ensure that a single earth fault does not create a common mode failure that trips multiple generating units. The system operator's report states that if Contact Energy had implemented protection settings in a similar way to Transpower's protection settings, the earth fault would not have activated Contact Energy's primary protection settings and would have avoided tripping the generating units. The fact Transpower had implemented such settings itself on its own equipment, and that Contact Energy implemented updated protection settings to ensure its assets would not trip in future similar events, strongly indicates Contact Energy should have already had such settings in place. We consider development and application of those settings to be consistent with GEIP. As such, had Contact Energy had regard to GEIP, the generator tripping and subsequent UFE could have been prevented. Protection settings and/or equipment configurations could have been in place to prevent the assets from tripping, and participants who do not meet this should be held accountable for their failure to do so.

Yours sincerely

**Mark Ryall**  
EGM Grid Delivery

## Appendix: Response to questions

| Transpower as Grid Owner                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| Questions                                                                                                                                                                                                      | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Q1. Do you agree with the draft determination that Transpower as grid owner is the causer of the under-frequency event at 7:21am 26 July 2024? If not, please advise your view on the causer and give reasons. | <p>We acknowledge that:</p> <ul style="list-style-type: none"> <li>an earth fault occurred on Transpower equipment, caused by an exposed flexible DC supply connection to motor brush that was in contact with the manual crank pole;</li> <li>as a consequence of that fault, and the capacitive current discharge and erroneous input signal that occurred as a result of the fault and the long trip signal cables, Contact Energy's protection relay activated, tripping Contact's Clyde G2 and G3 generating units.</li> </ul> <p>On a strict interpretation of "causer" Transpower could be determined as the causer, solely because the faulty equipment which caused the fault is Transpower equipment. However, for the reasons set out in the cover letter, we caution against the precedent risk of absolving Contact Energy of responsibility..</p> |
| Q.2 Do you agree with the system operator's assessment that 231 MW was lost from the power system in the 26 July 2024 under-frequency event? If not, please advise your view on the MW lost and give reasons.  | We agree with the calculated MW lost of 231MW.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |