Vulnerable Transmission Lines

Updated on: 06/03/2024

Notes:
LTTW: Lightning Trip Time Window
Contact the AEMO Support Hub at supporthub@aemo.com.au or call 1300 236 600 for information on previous changes.

Region	Double Circuit Transmission Lines	LTTW — End date for Probable state	LTTW — End date for Proven state	Reason for Classification	Category (Probable or Proven)
New South Wales	Bayswater – Mt piper No.5A3 and Mt Piper – Wollar No.5A5 500 kV lines	N/A	20/10/2027	Tripped twice in past 3 years	Proven
New South Wales	Mt Piper - Bannaby 5A6 500 kV line and Mt Piper - Bannaby 5A7 500 kV line	6/04/2026	N/A	Tripped once in past 3 years	Probable
Queensland	Ross - Woree No.8905 275 kV line and Cardwell – Tully No.7389 132kV lines	28/02/2027	N/A	Tripped once in past 3 years	Probable
Queensland	Chalumbin - Turkinjie No. 7165 and 7166 132 kV lines	25/11/2025	N/A	Tripped once in past 3 years	Probable
Queensland	Collinsville North – Proserpine No.7125 and No.7126 132 kV Lines	N/A	1/02/2028	Tripped in past 5 years	Proven
Queensland	Collinsville – Stoney Creek No.7306 and Collinsville – Newlands No.7121 132 kV lines	N/A	15/11/2027	Tripped twice in past 3 years	Proven
Queensland	Ross – Chalumbin No.857 and No.858 275 kV lines	N/A	21/11/2027	Tripped twice in past 3 years	Proven
Queensland	Strathmore – Clare South no.7208 132 kV line and Strathmore – Clare South (tee King Creek) no.7128 132 kV line	26/12/2026	N/A	Tripped once in past 3 years	Probable
Tasmania	Farrell–John Butters 220 kV line and Farrell–Rosebery–Newton–Queenstown 110 kV line	N/A	10/04/2026	Tripped in past 5 years	Proven
Tasmania	Farrell – Reece No.1 and No.2 220 kV lines	N/A	6/11/2024	Tripped in past 5 years	Proven
Tasmania	Hadspen – Palmerston No.3 & No.4 110 kV lines	13/12/2026	N/A	Tripped once in past 3 years	Probable
Tasmania	Lindisfarne - Mornington Tee - Rokeby No 1 and 2 110 kV Lines	N/A	2/01/2028	Tripped once in past 5 years	Proven
Tasmania	Norwood – Scottsdale No. 1 110 kV line and Norwood – Derby – Scottsdale 110 kV line.	13/02/2027	N/A	Tripped once in past 3 years	Probable
Tasmania	Waddamana - Tungatinah No.1 and No.2 110kV lines	21/10/2026	N/A	Tripped once in past 3 years	Probable
Victoria	Eildon PS – Mt Beauty No.1 and No.2 220 kV lines	N/A	14/01/2028	Tripped in past 5 years	Proven

Special Reclassification of Transmission Plant during lightning

Region	Transmission Plant	Notes
Tasmania	Farrell–Rosebery–Newton–Queenstown 110 kV line	Based on advice from the TasNetworks, the Farrell-Roseberry-Newton-Queens Town 110 kV line is considered at risk of a 3 phase fault when lightning is in the vicinity. As such during periods of lightning activity, AEMO will reclassify a 3 phase fault on this line as a credible contingency.
New South Wales	Armidale - Dumaresq 8C and Armidale to Sapphire Wind Farm 8E 330kV lines	Based on the advice from Transgrid, the 8C line is considered at risk of a two-phase to earth fault and the 8E line is considered at risk of a single-phase to earth fault when lightning is in the vicinity. As such during periods of lightning activity, AEMO will reclassify a two-phase to earth fault on 8C and single-phase to earth fault on 8E as a credible contingency.
Queensland	Woree - Tumoulin No.877 275 kV and Chalumbin - Turkinje No.7166 132 kV lines	Based on the advice from Powerlink, Woree - Tumoulin No.877 275 kV and Chalumbin - Turkinje No.7166 132 kV is considered at risk of a 3 phase fault when lightning is in the vicinity. While each transmission line is on a separate tower, they have “shared” earthing (underground and aerial) at various locations in the shared easement. As such during periods of lightning activity, AEMO will reclassify a 3 phase fault on these lines as a credible contingency.
Queensland	Middle Ridge no.2 and no.3 275/110 kV transformers	Based on advice from Powerlink, Middle Ridge no.2 and no.3 275/110 kV transformers are at risk of tripping simultaneously when lightning is in the vicinity. As such during periods of lightning activity, AEMO will reclassify the trip of both transformers as a credible contingency.

Summary of changes to the previously published version	Removed: - Tungkillo - Robertstown 275 kV lines 1 and 2, Robertstown synchronous condensers 1 and 2 from special reclassification of transmission plant during lightning