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 Date: *29/08/25*  
 Resolved to publish  Yes / No



All portfolio options rely on some hydro re-dispatch to meet needs in the first two years (no coal or gas re-dispatch). Portfolio options 4 and 5 exhibit materially lower re-dispatch in 2028/29 and 2029/30 because of the earlier deployment of synchronous condensers.

Portfolio options 1 - 3 rely heavily on gas re-dispatch to meet the need in years 2028/29 and 2029/30. Transgrid's market modelling includes a daily NEM-wide gas constraint (consistent with AEMO's 2024 ISP) and a specific additional pipeline constraint for two NSW gas generators (consistent with GHD advice). However, a comprehensive assessment of gas pipeline capacity and gas supply availability was out of scope for this assessment. As such, modelling may over-estimate the possible re-dispatch of gas, which may result in an underestimate for forecast risks of system strength gaps.

### Accelerated deployment of synchronous condensers reduces the risk of gaps in system strength

Modelling for each portfolio option identifies the risk of gaps to the minimum level of system strength. The risk of gaps occurs before synchronous condensers can be sufficiently deployed, as shown in Table 3. Risks are highest during periods of co-incident generation maintenance or forced outages.

Table 3. Years where the risk of system strength gaps occur for portfolio options 1 - 5

	Portfolio option 1	Portfolio option 2	Portfolio option 3	Portfolio option 4	Portfolio option 5
2025/26	No gaps	No gaps	No gaps	No gaps	No gaps
2026/27	No gaps	No gaps	No gaps	No gaps	No gaps
2027/28	Risk of gaps	Risk of gaps	Risk of gaps	Risk of gaps	Risk of gaps
2028/29	Risk of gaps	Risk of gaps	Risk of gaps	No gaps	No gaps
2029/30	No gaps	No gaps	Risk of gaps	No gaps	No gaps
2030/31	No gaps	No gaps	No gaps	No gaps	No gaps
2031/32	No gaps	No gaps	No gaps	No gaps	No gaps
2032/33	No gaps	No gaps	No gaps	No gaps	No gaps

Risks of gaps in the minimum level of system strength are projected to occur for:<sup>7</sup>

- up to 2% of time in 2027/28 across all portfolio options after the closure of Eraring Power Station;
- up to 1.5% of time in 2028/29 for portfolio options 1 – 3 at all nodes other than Armidale, and up to 10% of time at Armidale; and
- up to 5% of time in 2029/30 for portfolio option 3 at all nodes other than Armidale, and over 20% of time at Armidale.

Risks of gaps during critical planned outages may be partially mitigated if transmission outages can be co-ordinated with periods of high coal generation availability.

Transgrid is working to enable earlier procurement and installation of synchronous condensers to minimise power system security risks. In the operational timeframe, Transgrid will support AEMO and other relevant parties to manage the risks of insufficient system strength.

<sup>7</sup> Note that the assessment of risks of gaps in system strength is subject to market modelling assumptions. Gaps may be more or less in reality.