

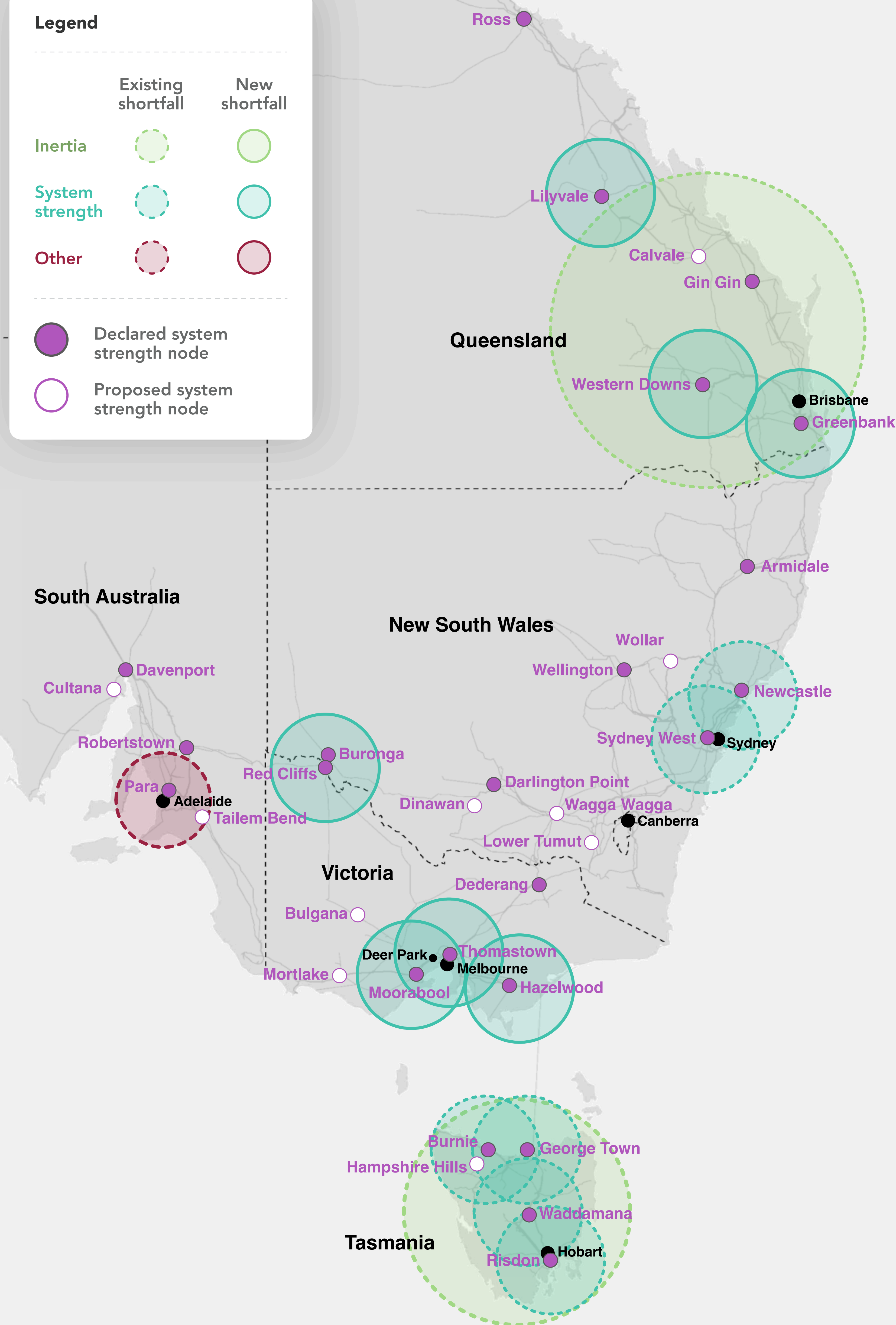
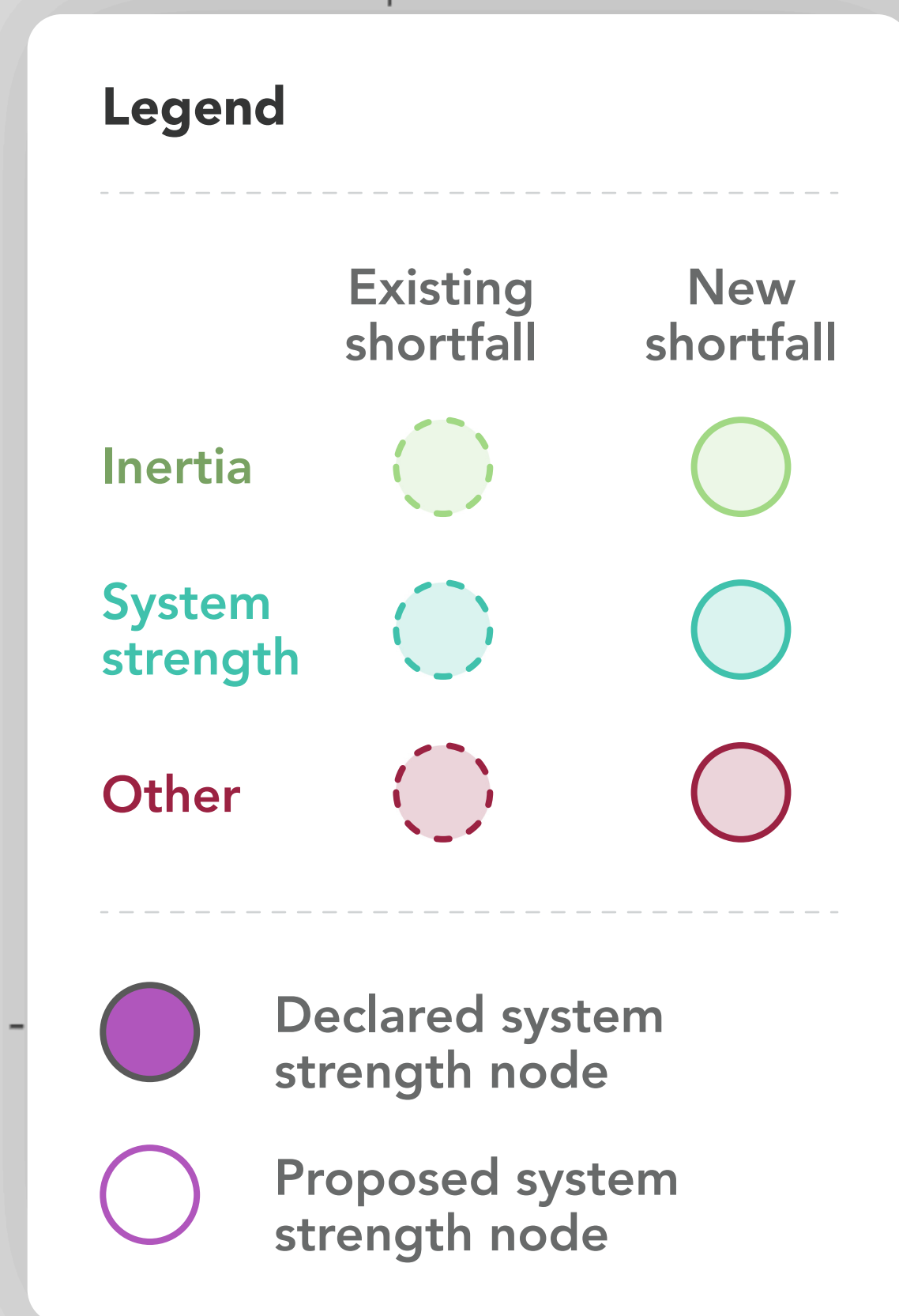
# 2024 System Strength, Inertia and NSCAS Reports

The Australian Energy Market Operator (AEMO) has published the 2024 assessment of system security needs across the National Electricity Market (NEM).

The annual System Strength, Inertia and Network Support and Control Ancillary Services (NSCAS) reports assess the services and actions necessary to maintain a stable and secure power system as the NEM evolves.

[Read full reports](#)

## System security needs across the NEM



## The findings

### Declared system security requirements across the NEM

The 2024 system security reports identify key services needed for each NEM state to ensure power system security over the coming decade.

- **System strength** ensures the power system can remain stable after a disturbance.
- **Inertia** allows the power system to resist large changes in frequency arising from an imbalance between supply and demand.
- **NSCAS** includes other needed security services that could include addressing thermal limitations, maintaining voltage profiles, managing ramping events, securing the system following a contingency event, and more.

The 2024 reports highlight that new system strength and inertia shortfalls may emerge if investment or other responses are not forthcoming. Thermal and voltage control risks have also been identified, which are highly sensitive to the location and timing of future investment, and which will need to be closely monitored in future reports.

The 2024 studies also model a new system-wide inertia level, allocated regionally, which forms the basis of a new security obligation on the network businesses from 2027.

All gaps identified for the 2024-25 period have remediation plans in place while longer-term solutions are progressed.

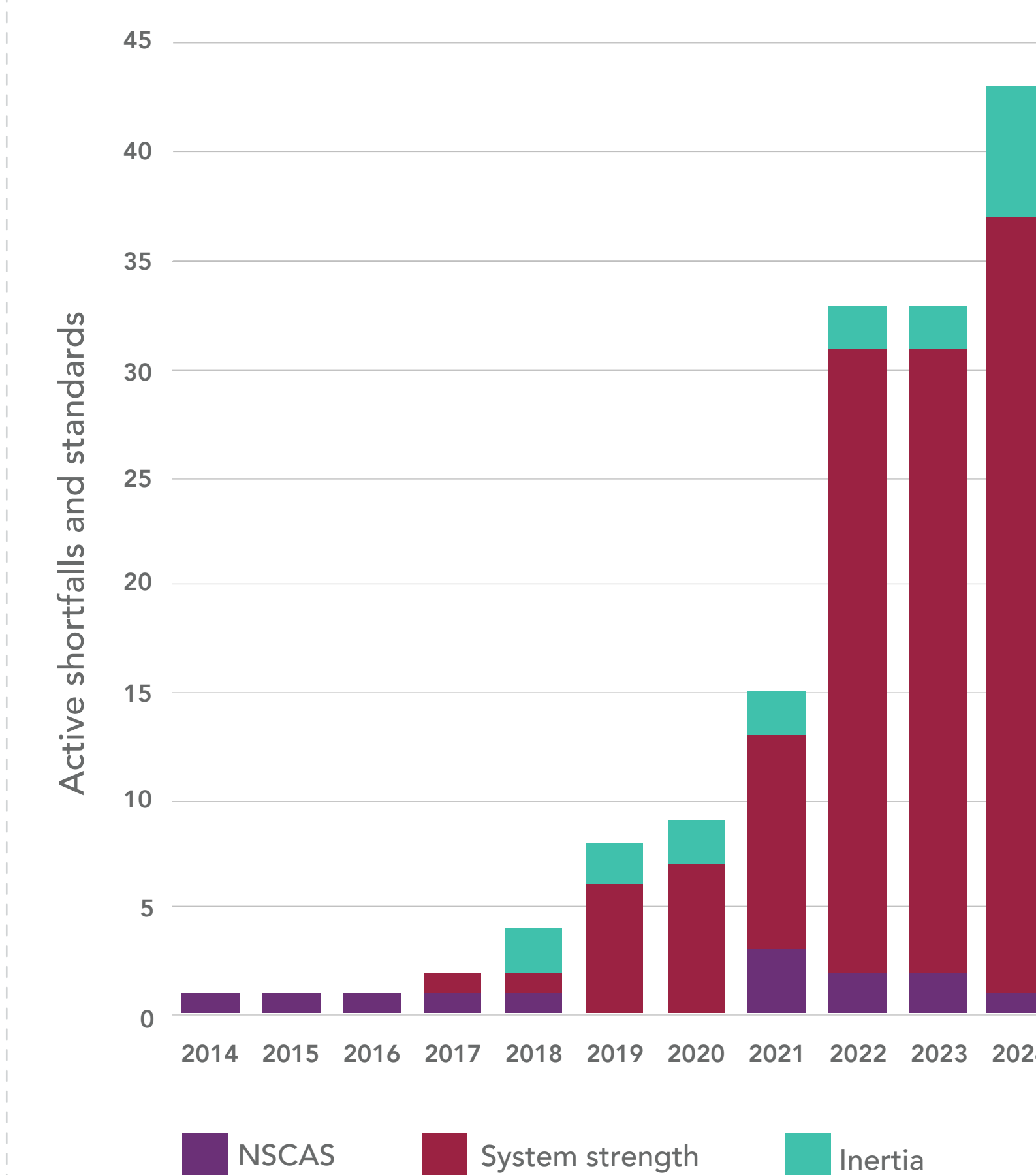
## More will be needed

### As the power system evolves, new system security services and providers are needed

Traditionally, many power system security services have been provided by thermal synchronous generating units, like coal and gas.

As these existing units withdraw from the system, and patterns of power flow change, new power system security requirements and shortfalls are emerging; and with them, new opportunities for plant with the capability of providing these services.

Security shortfalls and requirements over the past decade



## Next steps

### Significant industry effort is needed to deliver these services

Transmission networks in each region are responsible for delivering system strength, inertia and other security services in response to gaps and requirements declared in these reports.

Timely delivery of committed and anticipated transmission, generator and battery projects across the NEM will be crucial. These announced projects are projected to provide important security services, supplementing the gaps and requirements set in these reports.

