



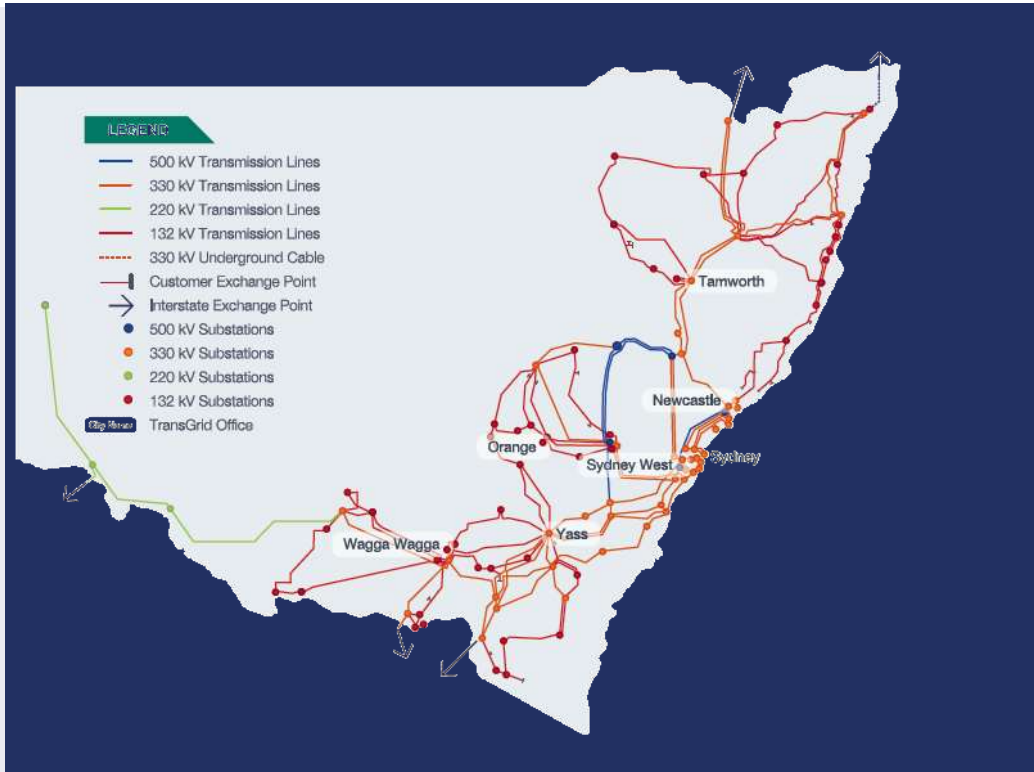
TransGrid

Sean McGoldrick

Executive Manager

Major Projects, Network Planning and Operations

About TransGrid



TransGrid operates and manages the high voltage electricity transmission network in NSW and the ACT, connecting generators, distributors and major end users.



32% of Australia's population



32% of energy in the NEM

Our network includes:



13,000 km of transmission lines & cables

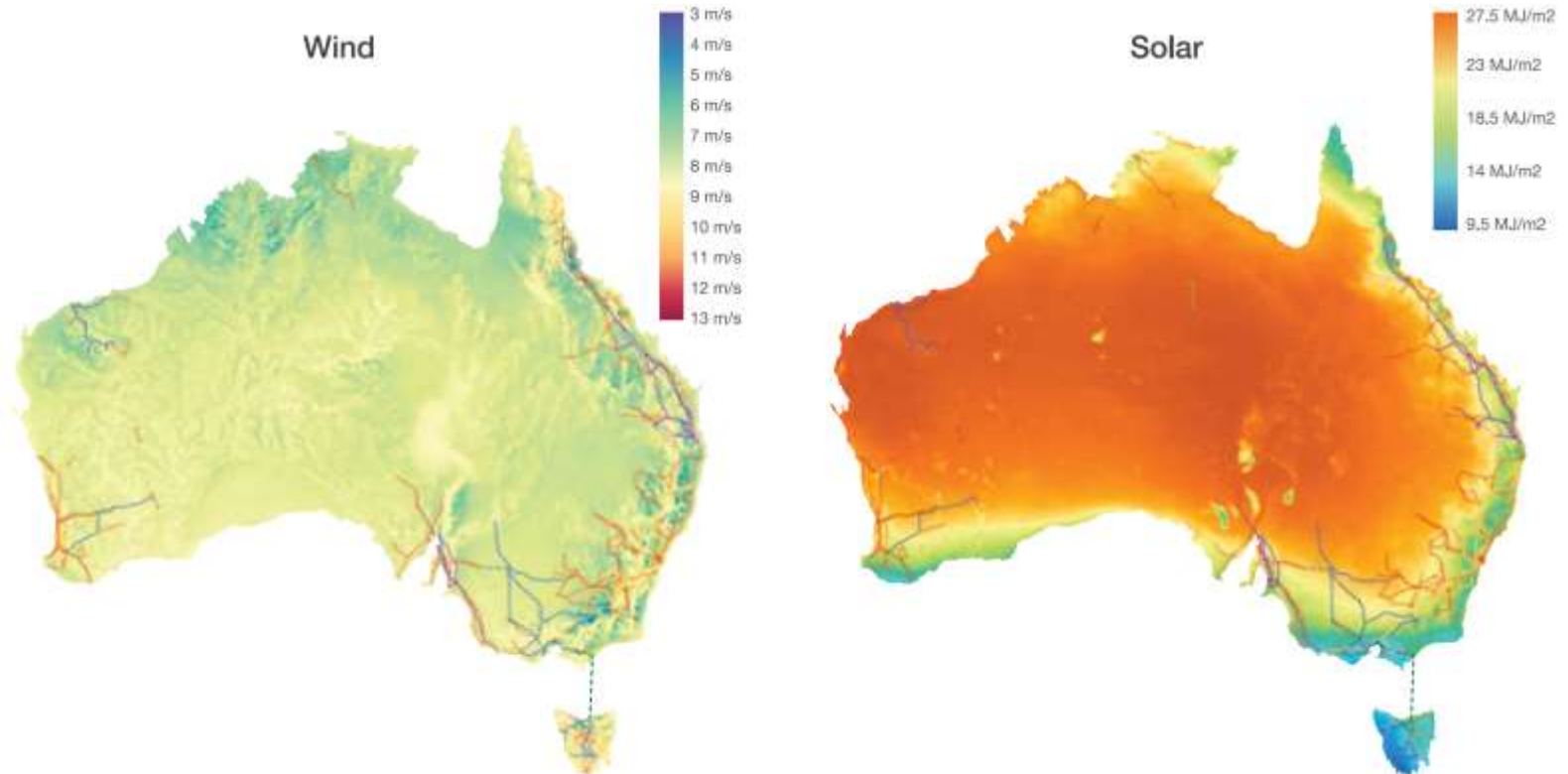


110 substations



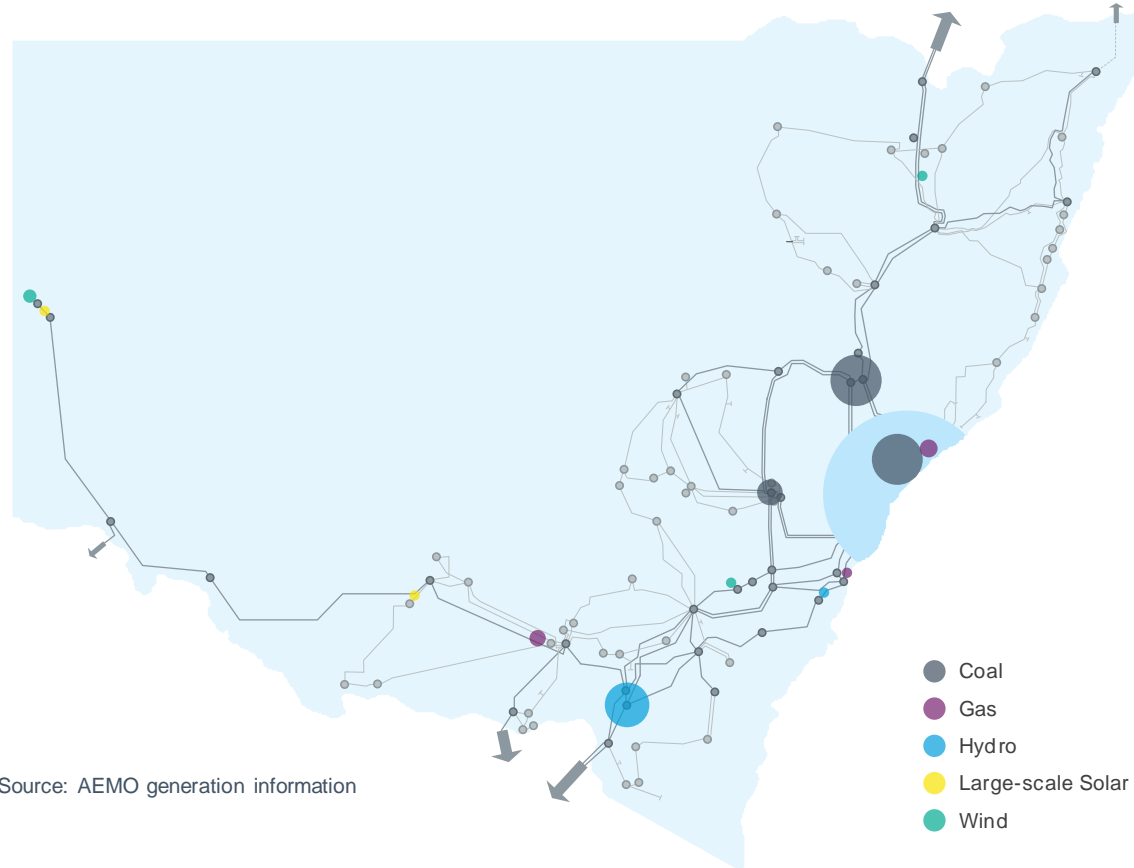
5 interconnections to QLD and VIC

The best energy resources are in regional Australia

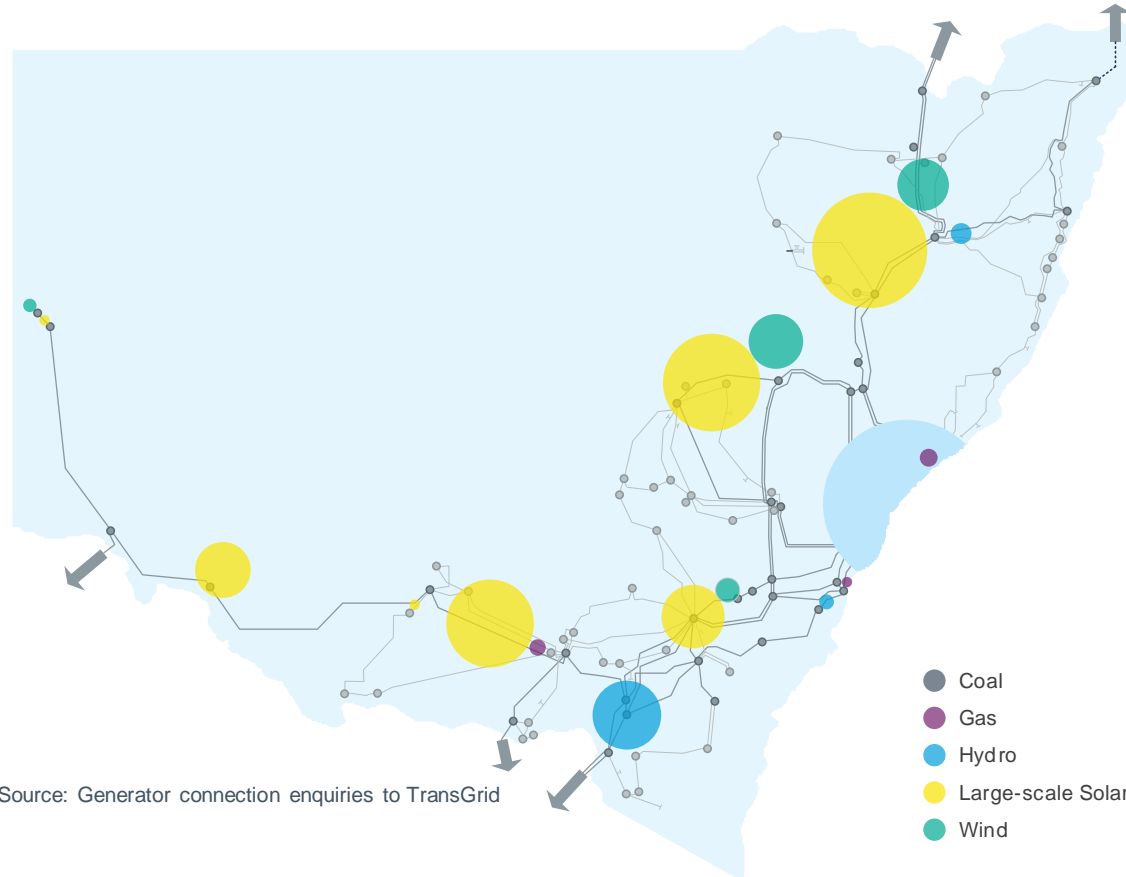


Source: Australian Renewable Energy Mapping Infrastructure.

Historical sources of generation in NSW



Future sources of generation in NSW



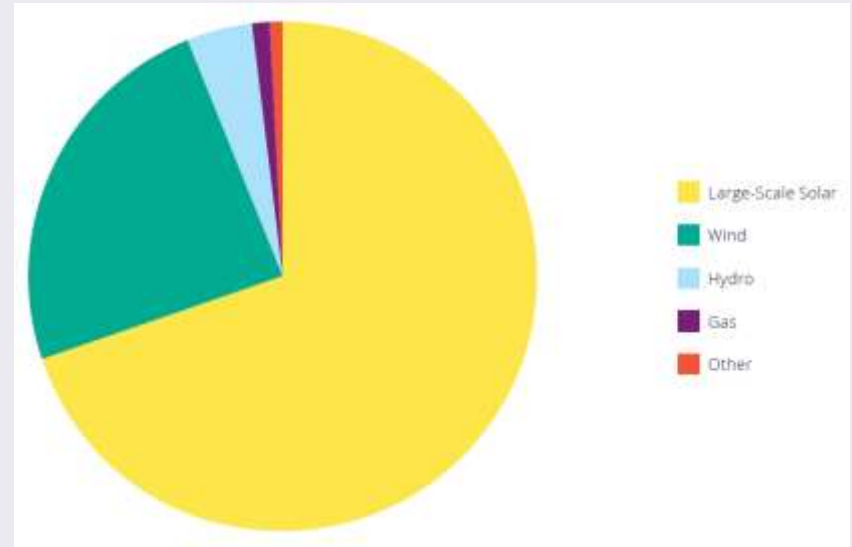
The transmission system must be upgraded

Nearly all TransGrid's connection enquiries come from renewable generators in regional NSW.

Wind and solar have better capacity factors in regional NSW than in coastal major population areas.

Unless the transmission system is upgraded, there will be problems with:

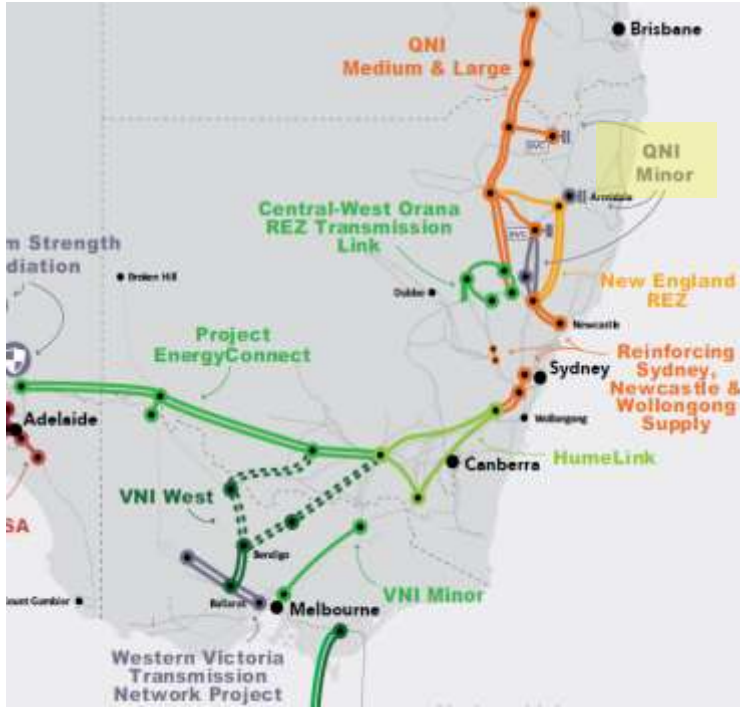
- Transmission capacity
- System strength
- Grid stability



Source: TransGrid.

Current and Future Major Projects

The AEMO 2020 ISP identifies a portfolio of greenfield transmission infrastructure development through regional NSW



QNI Minor:

- First of a number of **energy developments** eg New England REZ, other renewable generation projects
- Construction **currently in progress**, commenced May 2020 with forecast completion due December 2021
- Located in the **Hunter and New England** areas providing accommodation and workforce services in the Muswellbrook, Scone, Tamworth, Armidale and Dumaresq valley areas
- Contractors utilising **local suppliers** for equipment (eg mobile plant), materials (eg concrete and minor metal structures), and labour (eg day trades)
- **Builds on relationships** with existing communities, landowners and stakeholders

Source: AEMO, 2020 ISP, <https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2020-integrated-system-plan-isp>

Project EnergyConnect – Case Study

Proposed establishment of a new transmission lines between Robertstown (South Australia) and Wagga Wagga (NSW) via Buronga (NSW)



Source: AEMO, 2020 ISP, <https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2020-integrated-system-plan-isp>

Project EnergyConnect:

- Works (west to east) proposed in the Wentworth, Murrumbidgee Valley, Darlington Point and Wagga Wagga areas
- **EPC contract** requires supplier to achieve set targets within the *Australian Industry Participation Plan, Local Industry Participation Plan, Sustainability Management Plan, Aboriginal Participation Plan*
- TransGrid is working with EPC contractor to identify solutions for **maximising regional opportunities** including:
 - **Advertising** for local interest
 - **Recruitment/training** to help local labour access project opportunities
 - **Provision** of job advertising service to assist other local employers

Major Projects Pipeline



\$11 billion investment



Over next 5 -10 years



Creating 7000 regional jobs



\$25 billion in economic activity

