

Transmission network investment

EnergyAustralia is both a Transmission Network Service Provider (TNSP) and a Distribution Network Service Provider (DNSP) in the National Electricity Market. Our transmission network includes 132kV and 66kV assets that are operated in parallel and in support of the TransGrid transmission network.



The Transmission system is not confined to any one region and so we plan our investment on a cross region basis.

Sydney Metropolitan

Joint planning is underway with Transgrid to address the development of additional transmission capacity in the Sydney Metropolitan area. The most likely short term options are optimisation of power flows through 330kV cable series reactor replacement in conjunction with increased transformer capacity at Sydney South, Beaconsfield West and Sydney North. There is also an opportunity to increase capacity by replacing the Canterbury to Bunnerong 132kV feeders with new 132kV feeders between Kurnell and Bunnerong.

In the medium term, a new 330/132kV substation in the Chullora area is the most likely option, including connections to the substation and a 132kV upgrade to our network.

The 132kV cables between Lane Cove and Dalley Street are approaching retirement and the most likely option to replace the capacity provided by these feeders is a new 330/132kV substation in the inner Sydney area. EnergyAustralia would also be responsible for providing connections to the substation and undertaking the necessary 132kV upgrade works on its network.

A demand management investigation was launched in June 2007 to identify opportunities to defer the need for this upgrade.

Central Coast

Additional transmission capacity is being provided on the Central Coast by TransGrid at Tuggerah. EnergyAustralia plans to upgrade the Berkeley Vale zone substation to 132kV and the connection of the new zone substation at Wamberal will also help boost capacity.

To meet the forecasted increasing demand in the Gosford/Ourimbah area, options being considered with TransGrid include establishment of an additional 330/132kV substation, installation of additional 132kV feeders between Berkeley Vale and Ourimbah, and Wamberal and Gosford.

The most likely long term options for this area include the establishment of zone substations at Warnervale and Lake Munmorah with connection of these substations via establish of a 132kV busbar at Vales Point and duplication of an existing feeder.

A review of demand management opportunities in June 2006 found that it would not be reasonable to expect demand management to defer these projects.

Hunter

Joint planning with Transgrid is underway for additional transmission capacity in the Newcastle area with a strong focus on the 132kV system which supplies Beresfield, Tomago and Country Energy on the lower mid north coast.

The most likely option to address these issues is the establishment of a new 330/132kV substation in the Tomago area. EnergyAustralia would also be responsible for providing connections to the substation and 132kV upgrade works on its network to transfer load to the new substation.

Opportunities offered by the application of Demand Management or non-network options to defer network expenditure in this area will continue to be pursued.