

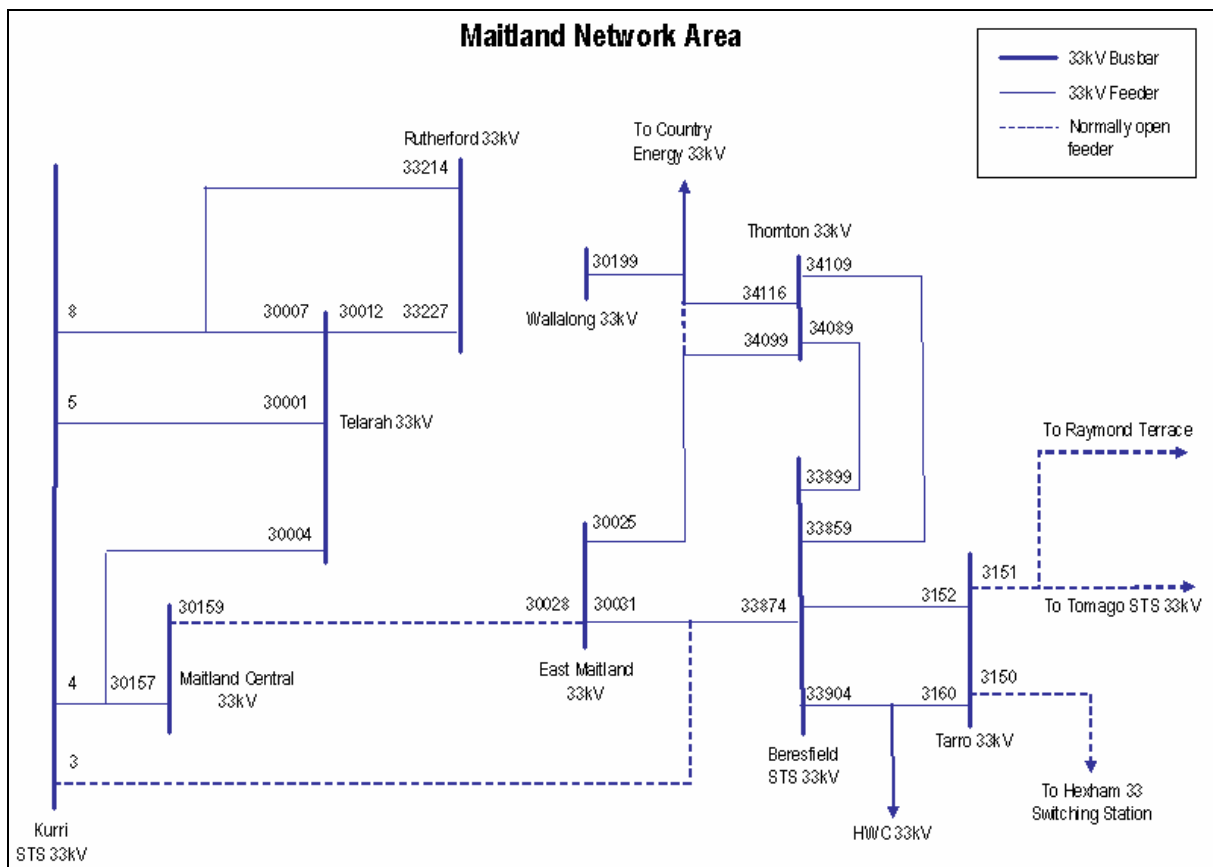
DEMAND MANAGEMENT SCREENING TEST

Maitland Zone Substation

Current Supply Arrangements

Maitland Central substation consists of two 33/11kV transformers and is currently supplied by Kurri STS from a 33kV teed feeder also supplying Telarah Zone. An open 33kV feeder connects Maitland Central to Beresfield STS via East Maitland Zone. Maitland Central supplies parts of Central Maitland, Oakhampton, Lorn, Telarah, Paterson, and Louth Park.

Currently there is a committed project that will enable the transfer of supply of Maitland Central from Kurri STS to Beresfield STS. This will address the forecasted load constraints on Kurri STS and is due to occur when Tomago BSP is commissioned in mid 2011.

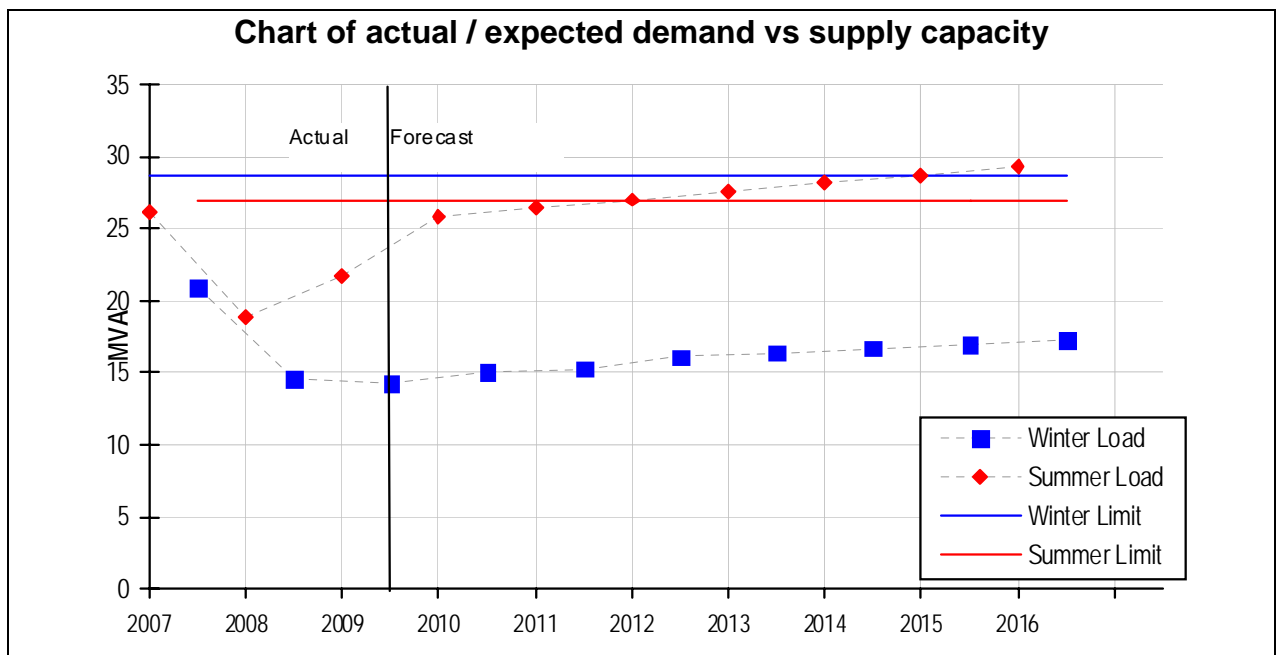


Supply Capacity and Demand Forecast

Maitland Central substation has a summer licence capacity of 27MVA and is limited by the secondary cables. The peak load for Maitland Central substation occurs in summer and is comprised of residential, commercial and rural loads.

We forecast that demand will exceed its capacity limits in summer 2012/13 and summer 2013/2014 by 0.6MVA (2.2 %) and 1.14MVA (4.2%) respectively.

There are a number of aged assets at Maitland Zone substation. All the 33kV switchgear and eleven 11kV circuit breakers must be replaced by June 2014.

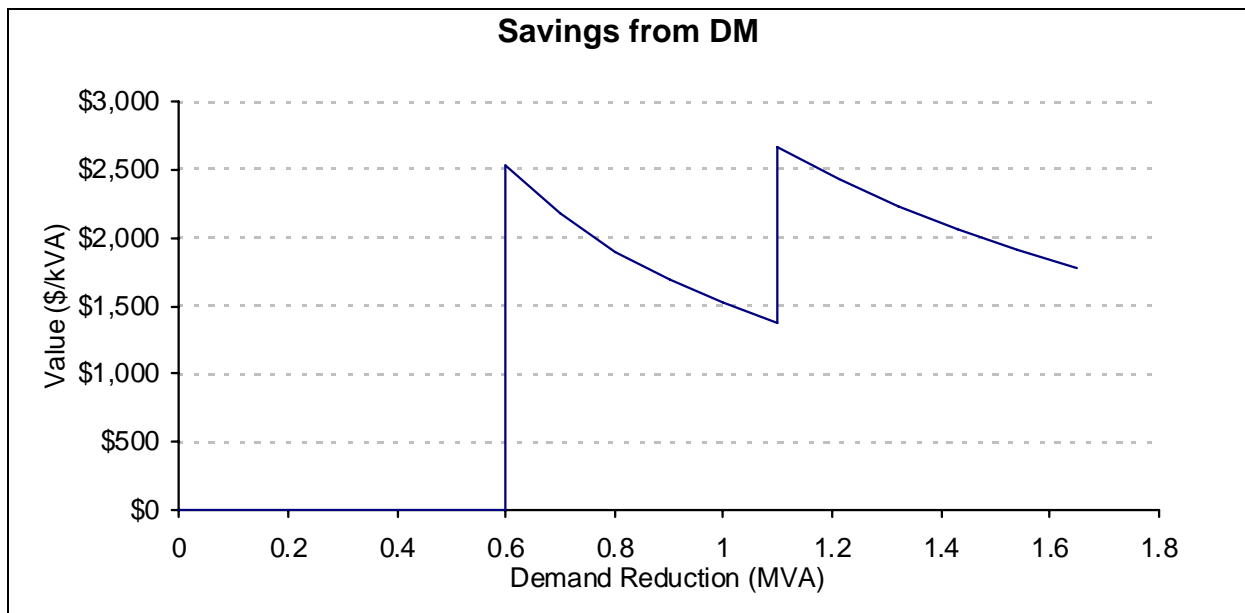


Supply Strategy Option

The selected supply option is to construct a new 33/11kV Zone adjacent to the existing Maitland Central Zone. The proposed licence capacity of the replacement Zone is 31.1MVA and has an estimated cost, including 11kV feeder works of \$19.95 million in nominal dollars. The target commission date is November 2012. A decision on this investment is needed by July 2010.

Required Demand Management Characteristics

To defer investment by 1 year a reduction in demand of 0.6 MVA is required by summer 2012/2013. To defer by 2 years 1.14 MVA is required by summer 2013/2014.



The value of deferral is shown in the chart above. The value of a one year deferral is \$1.52M which is equivalent to \$2500/kVA and a two year deferral is \$2.94M which is equivalent to \$2600/kVA. It is not possible to defer this project by more than two years due to the need to replace aged assets.

Given the low amount of MVA reduction required and the high value of deferral, it is reasonable to expect an effective DM option can be found in an investigation.

Recommendation

Based on this analysis it is considered reasonable to expect that it may be cost-effective to postpone the proposed supply-side solution by implementing demand management strategies. A demand management investigation should be undertaken involving site visits and public consultation.