

# Lower South Island Renewables: *Clutha to the Waitaki*

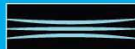
Update to LSI Grid Reliability Forum  
11 December 2008

TRANSPower



# Background

- Large amount of generation already consented or in the consenting process (1200+ MW) for the Lower South Island.
- Export of electricity from the Lower South Island Transfer constrained by 220 kV grid between Roxburgh Waitaki Valley.
- Some options identified by the LSI Renewables Project may also aid the import of electricity into the Lower South Island at times of low wind and/or water.

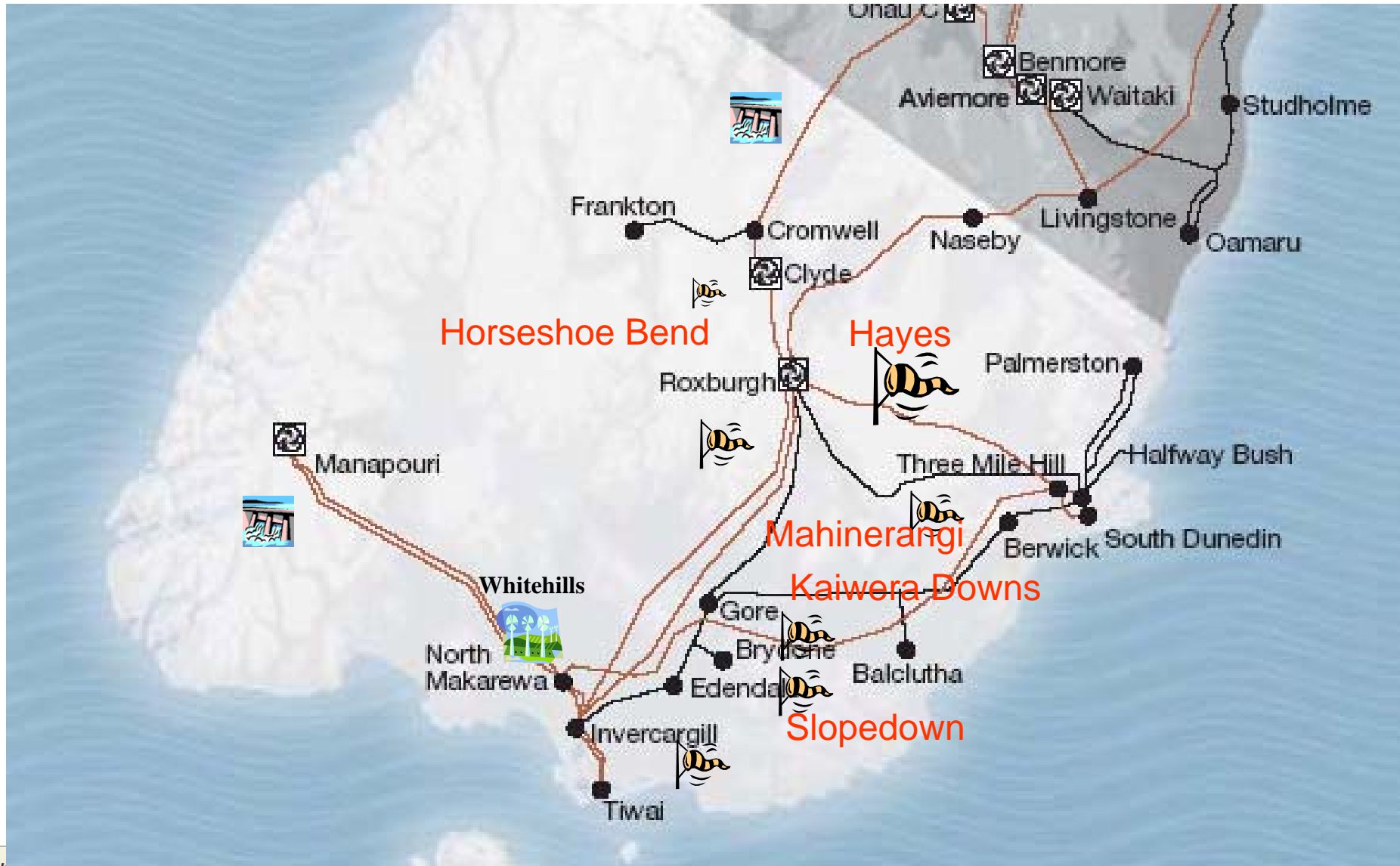


# Generation and Resources

<b>Project</b>	<b>Capacity</b>	<b>Status</b>
Horseshoe Bend	2 MW	Consented, Construction Starting
Mahinerangi	200 MW	Consented
Hayes	630 MW	Consented but under appeal
Kaiwera Downs	240 MW	Consented but under appeal
Slopedown	150 MW	Consent due to be lodged Feb 2009
White Hills Extension	14 MW	Consented
Manapouri Discharge	75 MW	Consenting
Mt. Stuart	10 MW	Consenting
<b>TOTAL</b>	<b>1321 MW</b>	Consented or Consenting



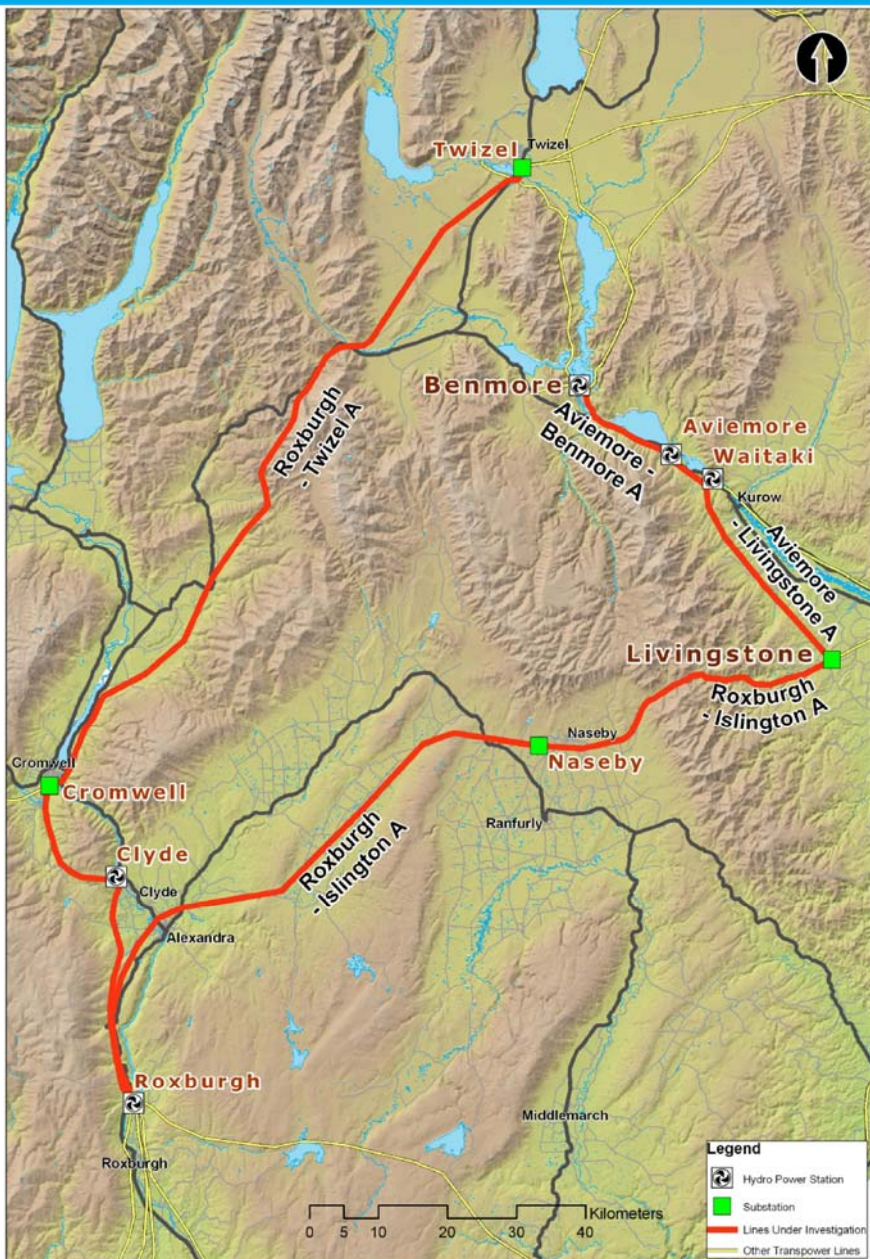
# Lower South Island - Potential Generation



# Renewables – Progress

- Need is to strengthen the transmission grid between Roxburgh & the Waitaki Valley
- Shortlisted options being identified
- Landowner engagement being initiated
- GUP to the EC mid 2009





## Lower South Island

- Transfer of electricity between the Clutha River and Waitaki is reliant on:
  - A double circuit 220 kV line between Clyde-Cromwell-Twizel
  - A single circuit 220 kV line between Roxburgh-Naseby-Livingstone



# Existing System: Constraints

