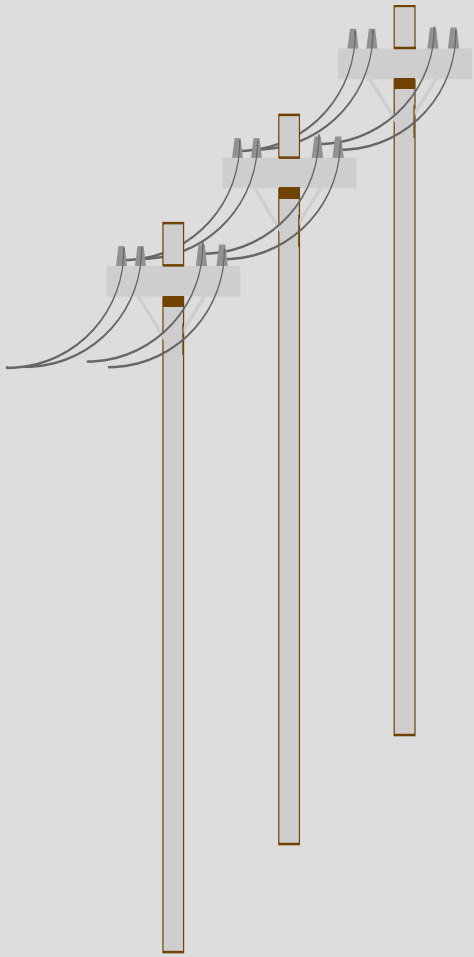
Aurora



Lower South Island Stakeholders Group

Oct 2008

Lindsay McLennan
DELTA

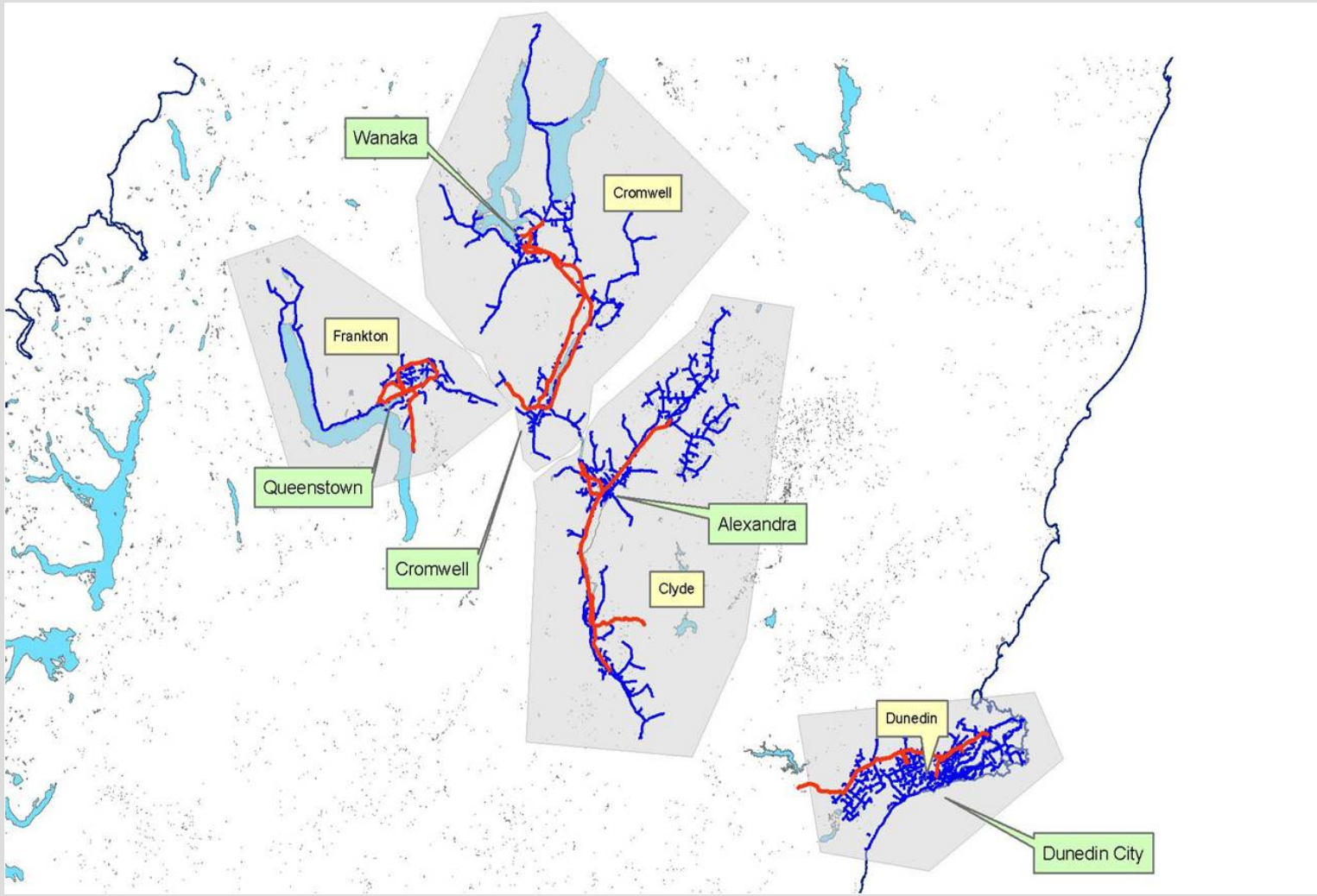
Aurora website - www.electricity.co.nz

Aurora

Session

- First Session
  - Network areas
  - Reliability
  - User pays line pricing
- Later
  - AMP
  - Demand growth
  - Capital Development

Aurora Network Areas



Key Parameters

• No of Connections	80,000
• Peak System Load (controlled)	290 MW
• Est of Controlled Load at peak	50 MW
• Length of Line & Cables	5,450 km
• Zone Substations 33/11kV	36
• Distribution Substations	6,350
• Replacement Cost	$450 +million

STAKEHOLDERS

Contractors who provide services to Aurora	Contractual relationships Safe working environment
Electrical Contractors who work for consumers and developers	New connection policies Maintenance and upgrade policies
Electricity Consumers	Line Charges – network reliability / service New connection policies
Electricity Retailers, and embedded generators	Line Charges – network reliability / service
Employees	Health & safety
Government – MED, Commerce Commission	Compliance with statutory & regulatory Economic efficiency
Land Owners with network facilities on their land	Access for maintenance work Safety – easement conditions
Territorial Authority	Minimise environmental impacts Local economic development
Property Developers	New connection policies Timely network expansion
Shareholder	Adequate stable return on investment Good corporate citizen

Consumer Feedback

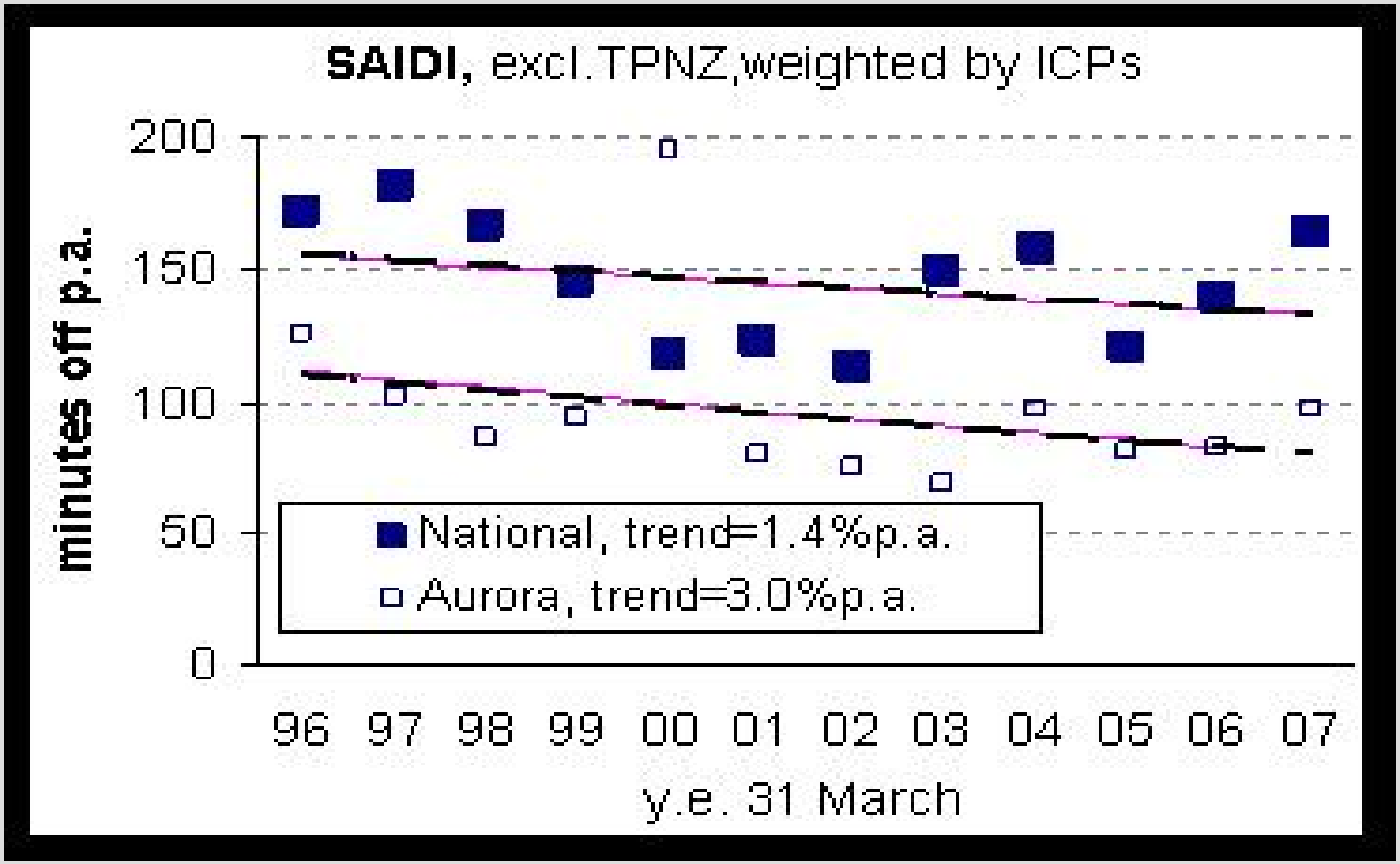
- Continuous Monthly Survey on Reliability
- Annual detailed telephone survey on reliability and price / quality tradeoffs
- Feedback from consumers and retailers after faults

Underlying Reliability - SAIDI

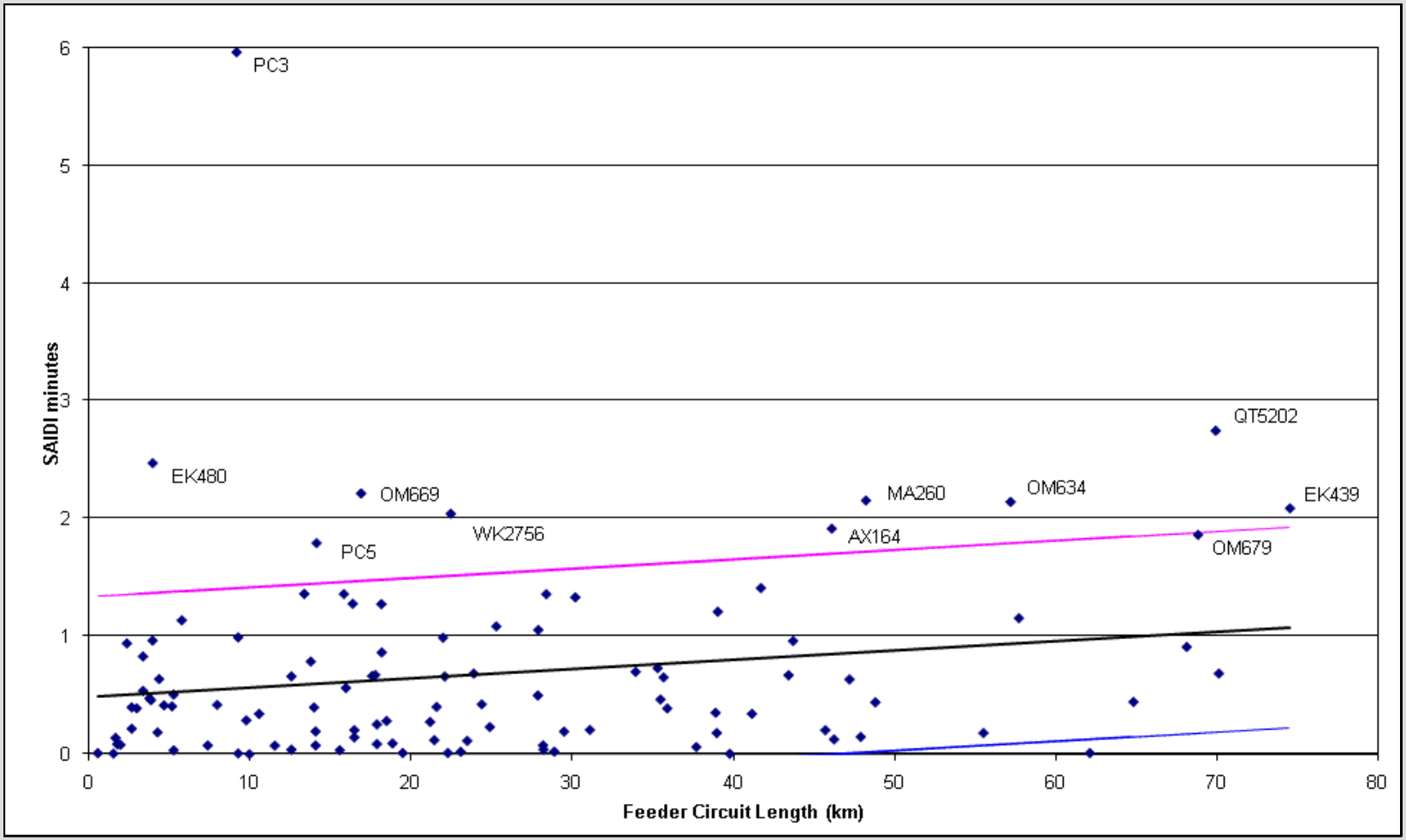
Period End 31 March	2003/04	2004/05	2005/06	2006/07	2007/08
Unplanned					
Underlying	56.6	67.8	70.8	61.3	55.3
Significant Events	23.4	5.4	0	22.3	60.7
Transpower	1.0	0.0	13.9	4.7	11.0
Total Unplanned	**81.0**	**73.2**	**84.7**	**88.2**	**127.0**
Planned					
Underlying	16.3	7.3	11.7	13.2	13.3
Total					
Underlying	72.9	75.1	82.5	74.5	68.6
Significant Events	23.4	5.4	0	22.2	60.7
Transpower	1.0	0.0	13.9	4.7	11.0
Disclosure Total	**97.3**	**80.5**	**96.4**	**101.4**	**140.3**
Other (LV etc)	0.1	0.9	0.5	0.5	1.4
Overall Total	**97.4**	**81.4**	**96.9**	**101.9**	**141.7**

Wanaka 66kV Lines down 140kph wind– Aug 07

Reliability Trends



HV Feeder Reliability by Circuit Length

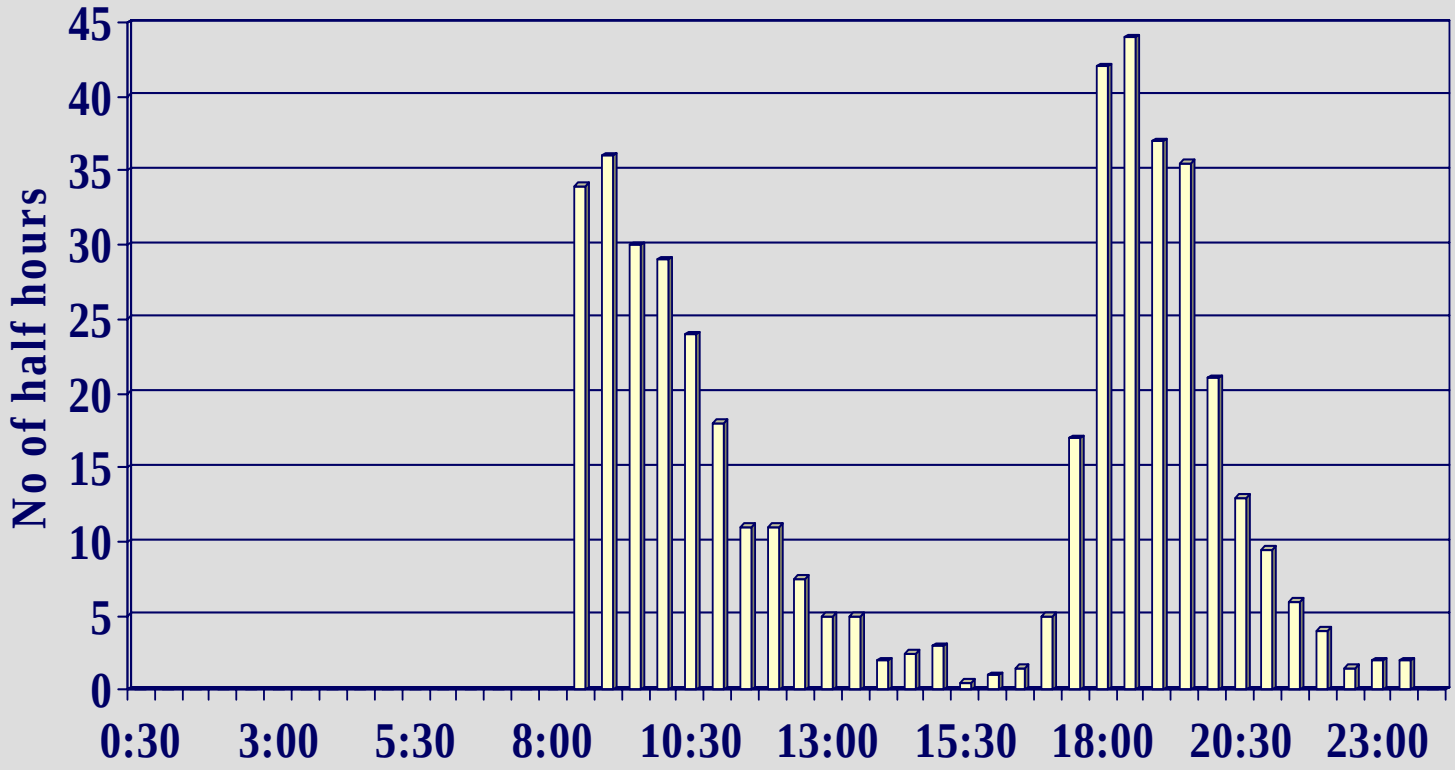


Pricing – Strong User Pays

- 50% of Line Charge revenue when network highly loaded during 200 hours peak demands
- Congestion Period Signal sent via ripple control - isolated relay contact can be used by consumer to
  - operate a warning device
  - input into a load management system
  - directly control deferrable load
  - start up a standby generator
- See www.electricity.co.nz/site/dms_congestion.asp for forecasts of congestion periods

Typical CPD hours

May, June, July & August



End of First Session

Questions