Keeping the energy flowing

challenges and opportunities



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Transpower New Zealand Ltd The National Grid

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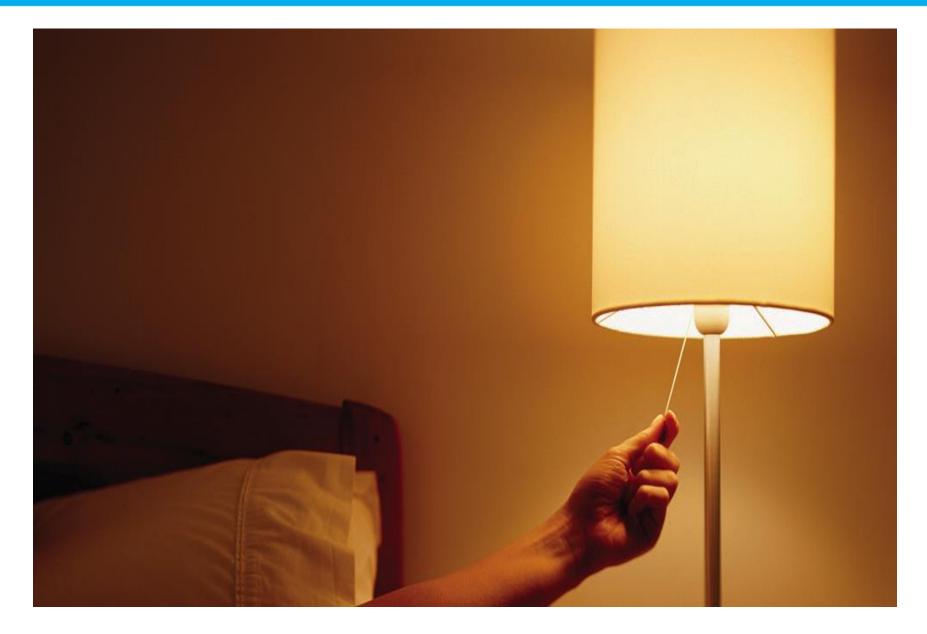




Why Demand Response

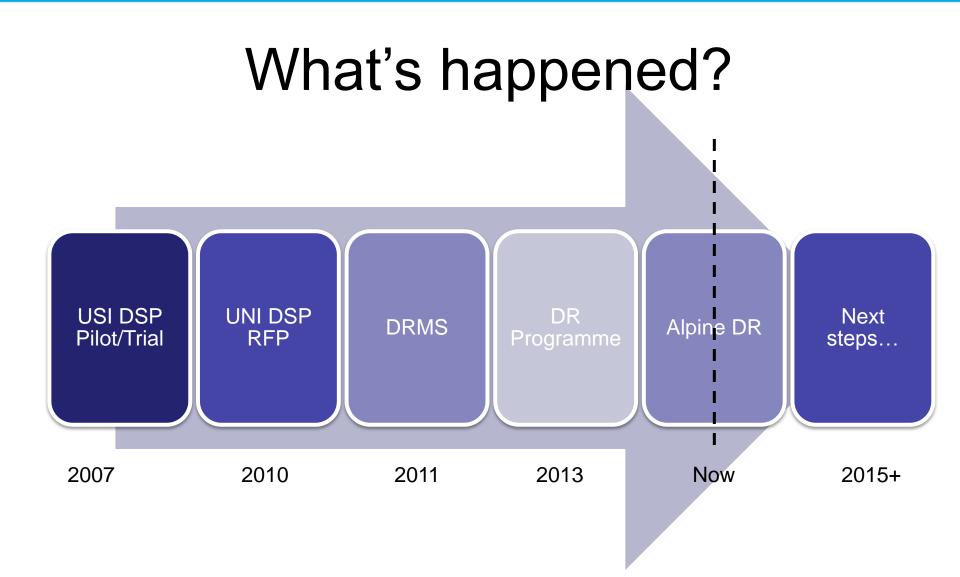
- Customer value reduction in costs
- Getting more out of our existing infrastructure
- Improved markets demand has more say
- Reliability



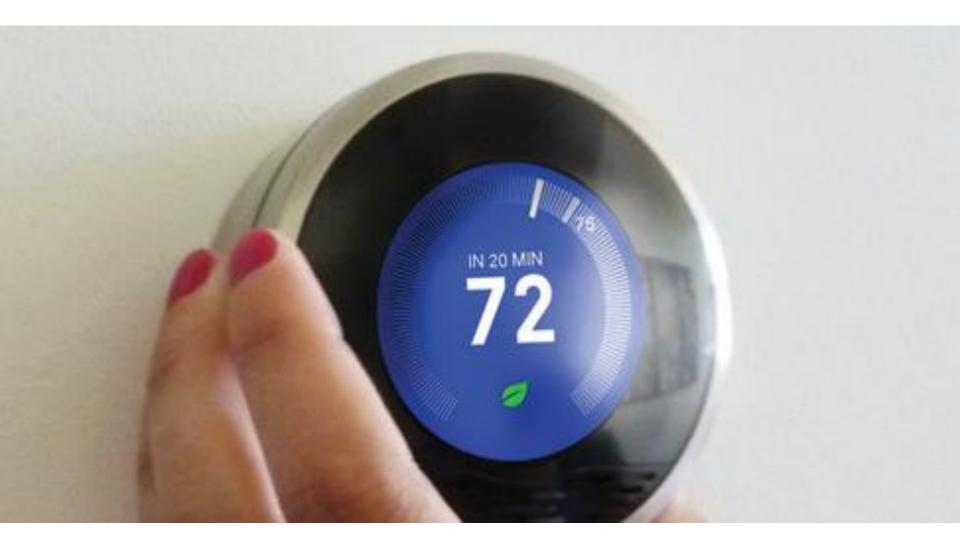














Market Programme

- Confirm operation of DRMS including:
 - 100 MW
 - Coordination
 - Interaction with other demand side regimes
- Natural price points
- Next steps





Market Programme

- Services sought
 - 100MW of DR
 - Bilateral agreement
- Security & Price Responsive Security Products
- Running from July to December 2013
- Fixed Budget



- Security
 - c.60MW
 - 6 events
- Price Responsive programme
 - c.100MW
 - 18 events

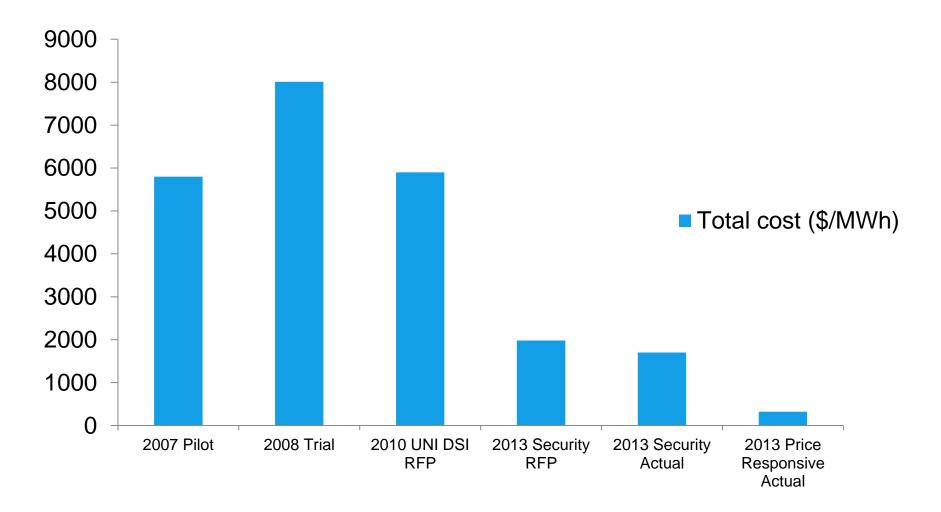


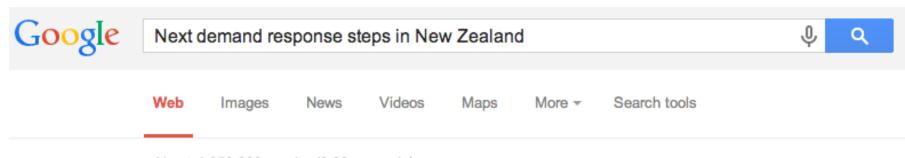
Average DR event - 38 MW Largest DR event- 175.72 MW Average Call length - 2 hours MW delivered vs dispatched: 135% Net consumption reduction (MWh): 1583MWh



Average Event Cost - \$27,500 Total spent for all DR Calls - \$550,000 Total Availability Fees: \$195,000 Average price: \$470/MWh







About 4,050,000 results (0.39 seconds)



Where to next?

10% of peak load

new DR capacity

DR as a transmission alternative

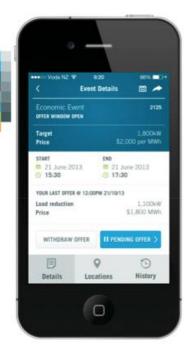
- small-medium commercial and industrial segments
 - 20-200 kW

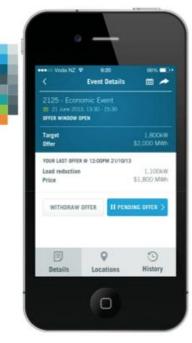
Market entry barriers

- usability improvements to the DRMS
- accessibility to DR contracts and tendering

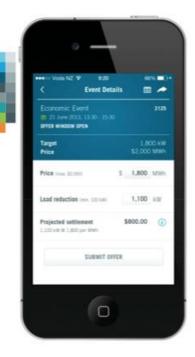
'Walk the talk blueprint'

Where to next?







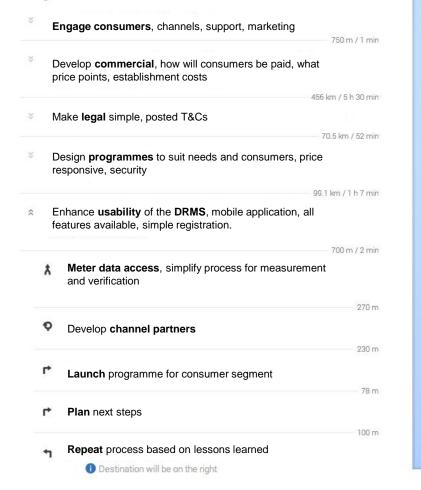


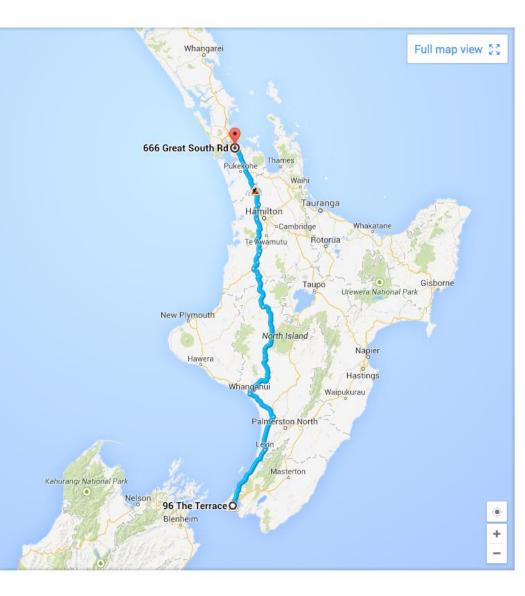
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Drive 627 km, 7 h 33 min

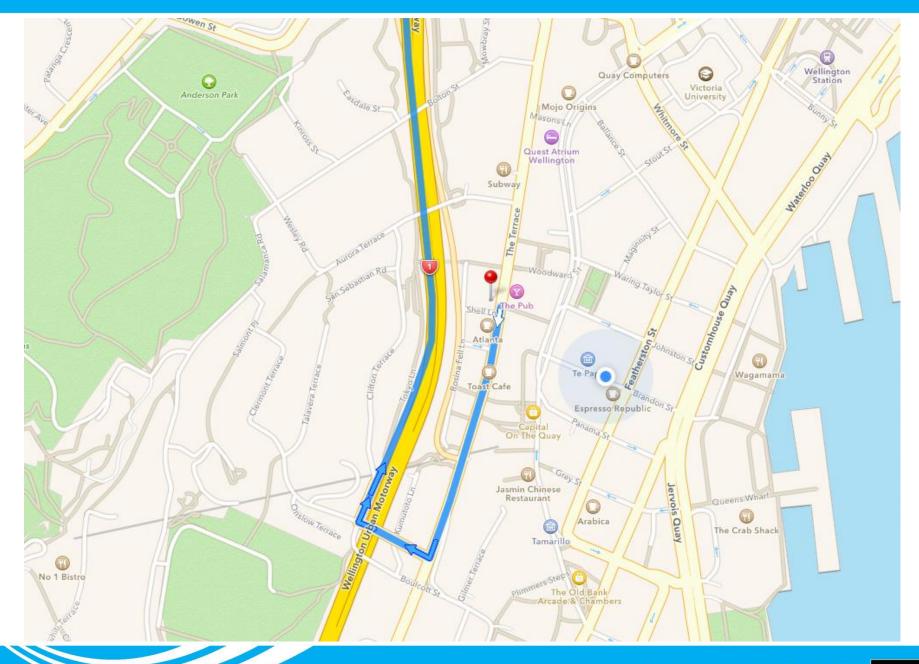
O 96 The Terrace

Wellington, 6011





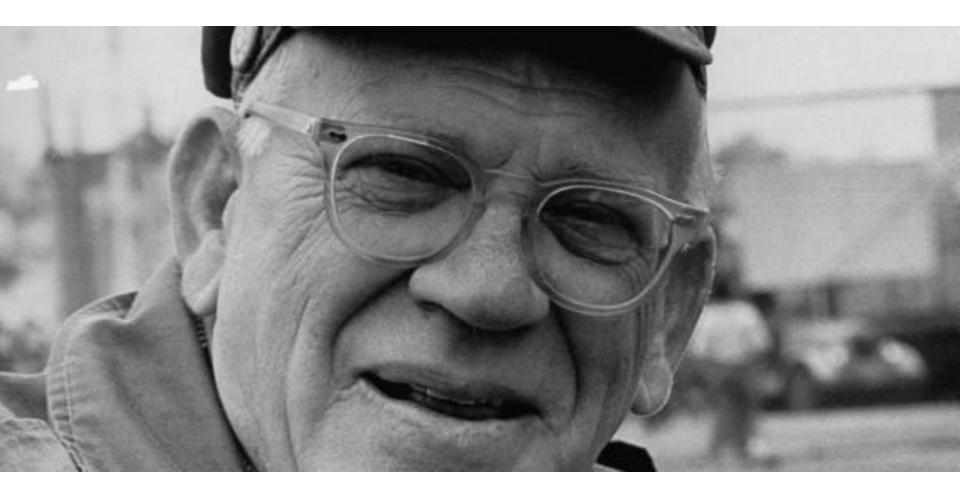














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