



Decarbonisation, Digitilisation, Decentralisation

2nd May 2018

New Zealand Wind Energy Association – Think Tank

Greg Skelton, CEO, Wellington Electricity

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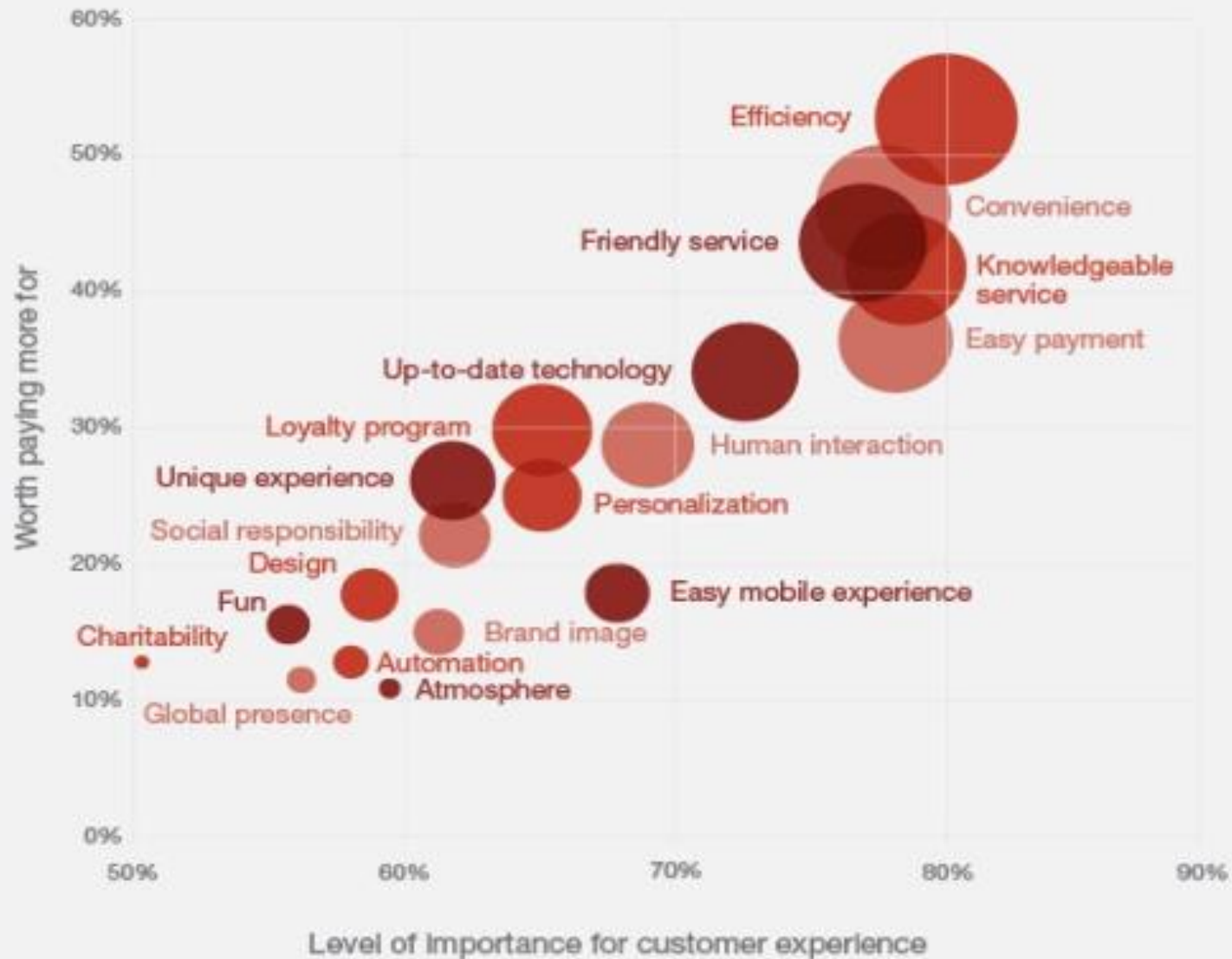
www.welectricity.co.nz

Health & Safety – “Trust, Trust & Check – B Obama”

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What people value most in their customer experience



Q: When it comes to great overall customer experience, how important do you think each of the following will be in the future? Which of the following things are worth paying more for?
 Source: PwC Future of Customer Experience Survey 2017/18

Consumers part of a coordinated supply chain

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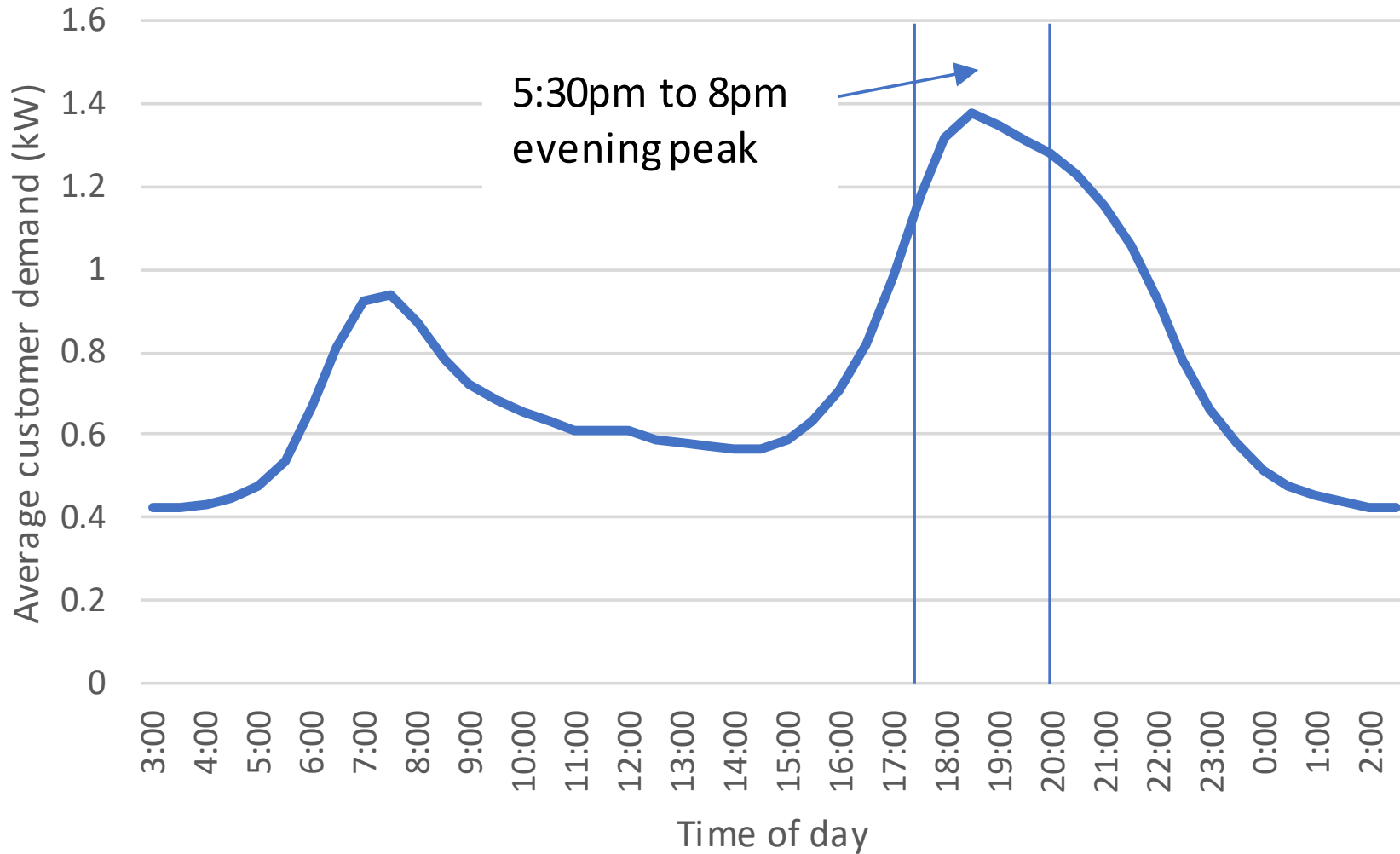


Different drivers in end-to-end supply system

- ▶ Retailers = kWh (Volume), Distributors = how many kW's in which hour (Demand)
- ▶ Future services driven from customers wanting to transport their energy through the network –managing network quality standards in a data rich environment (DSO)

▶ **DIGITALISATION & Distribution System Operator**

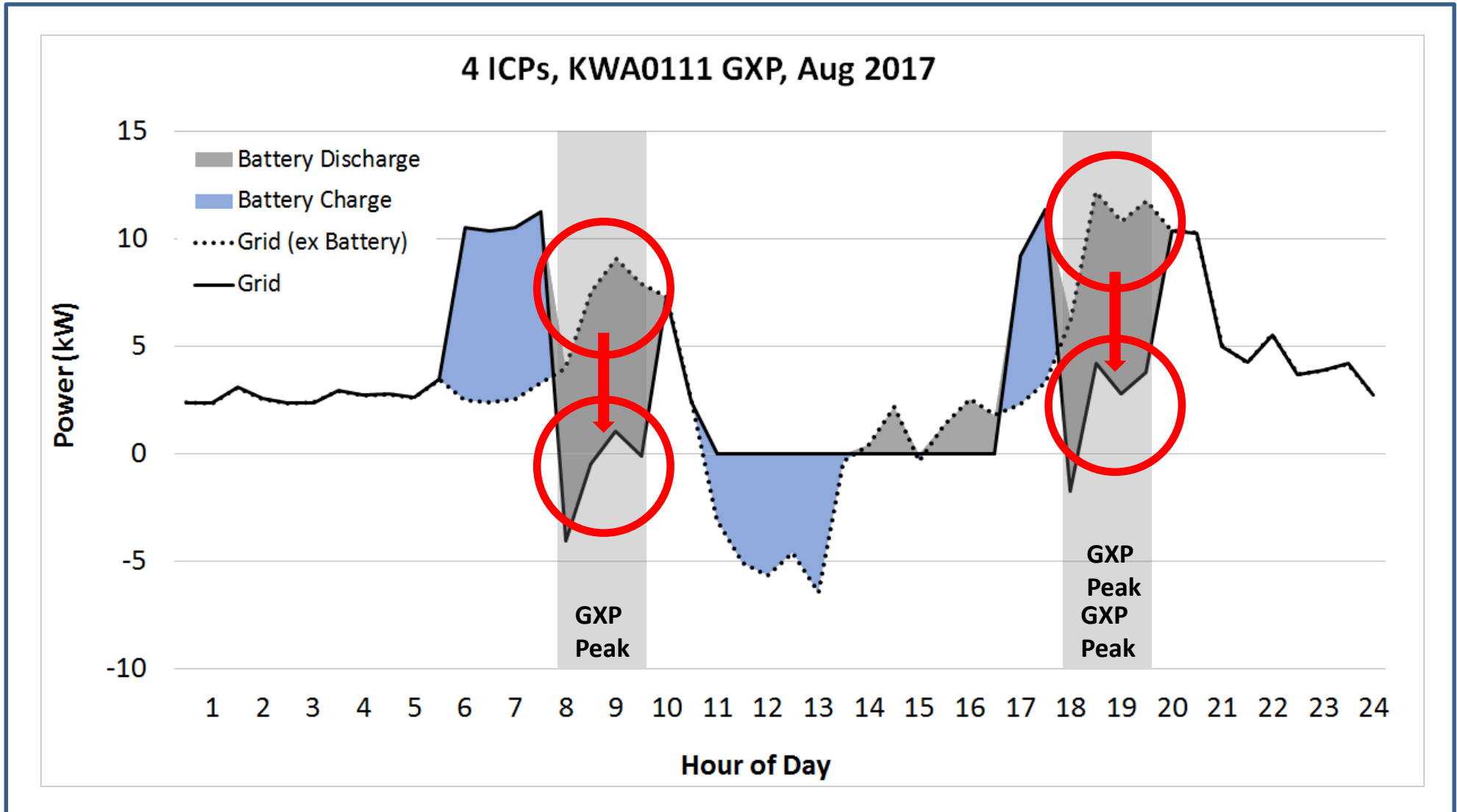
Solar not very helpful in reducing network peak demand



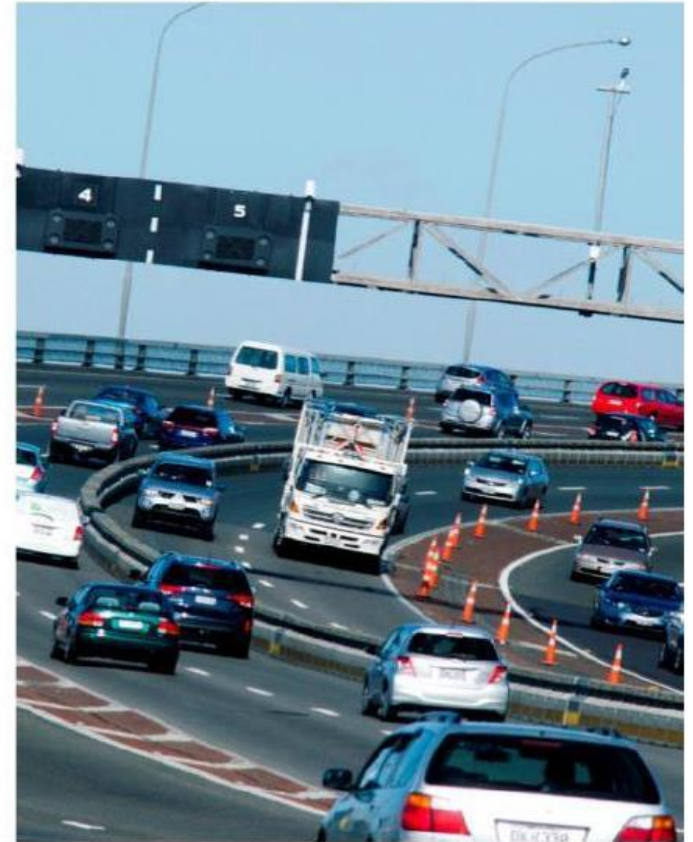
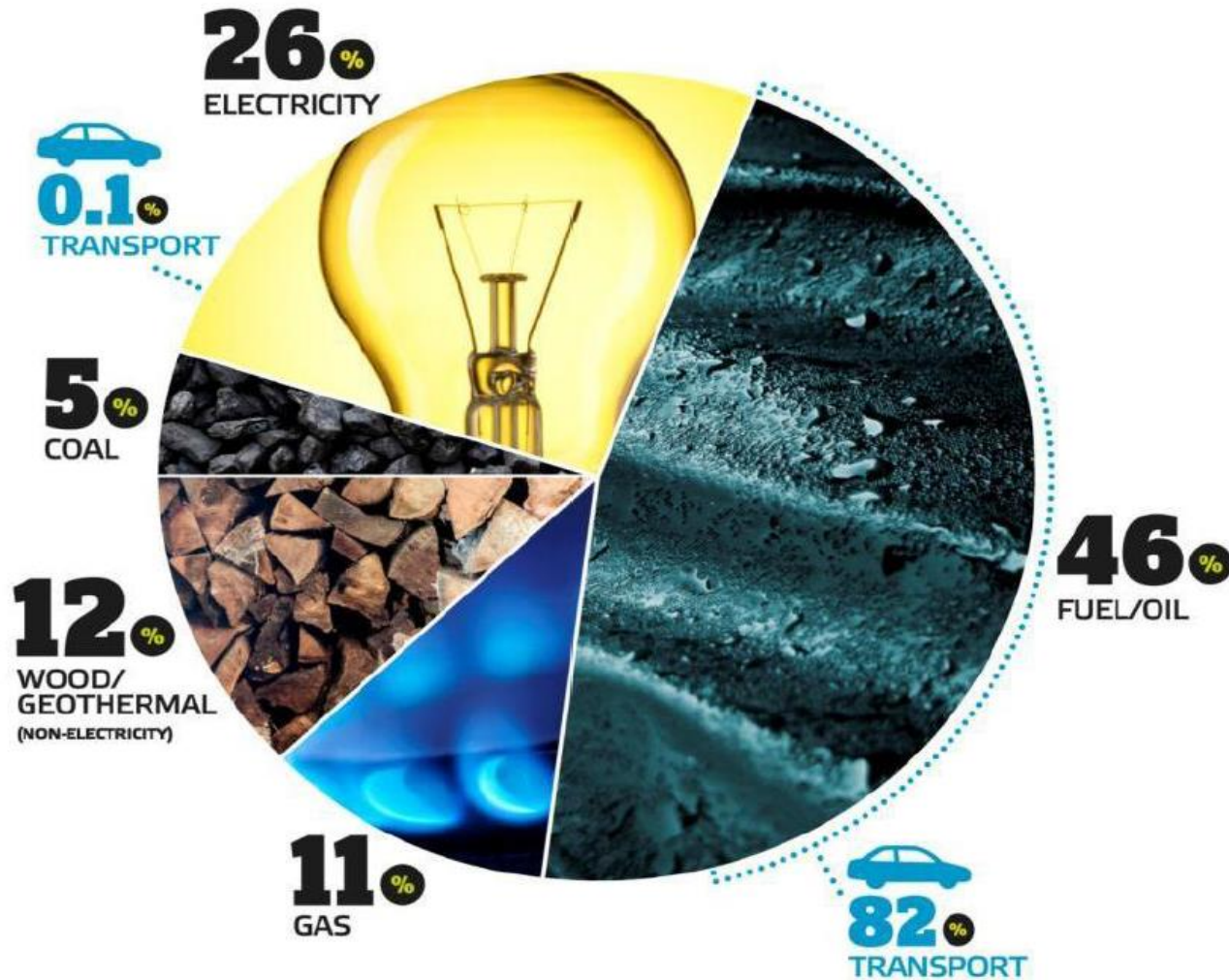
Decentralisation - Virtual Home Power Station – (Panasonic and Redback)

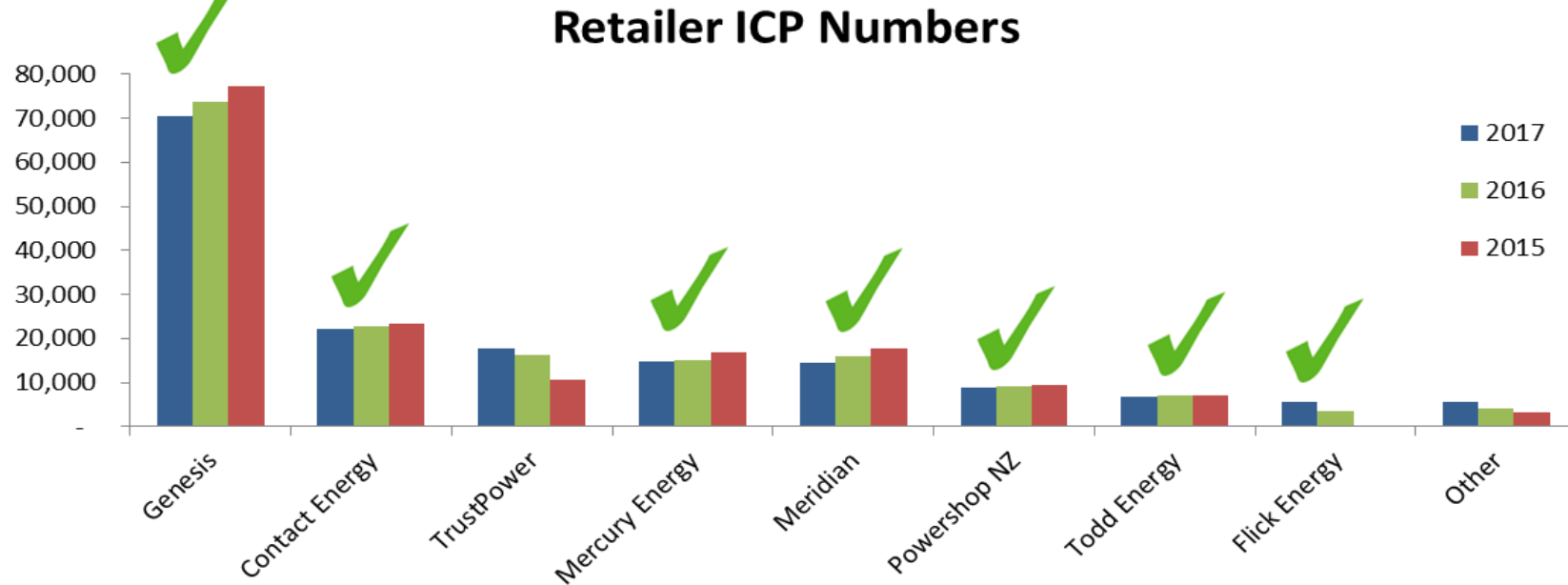


Solar + controlled battery



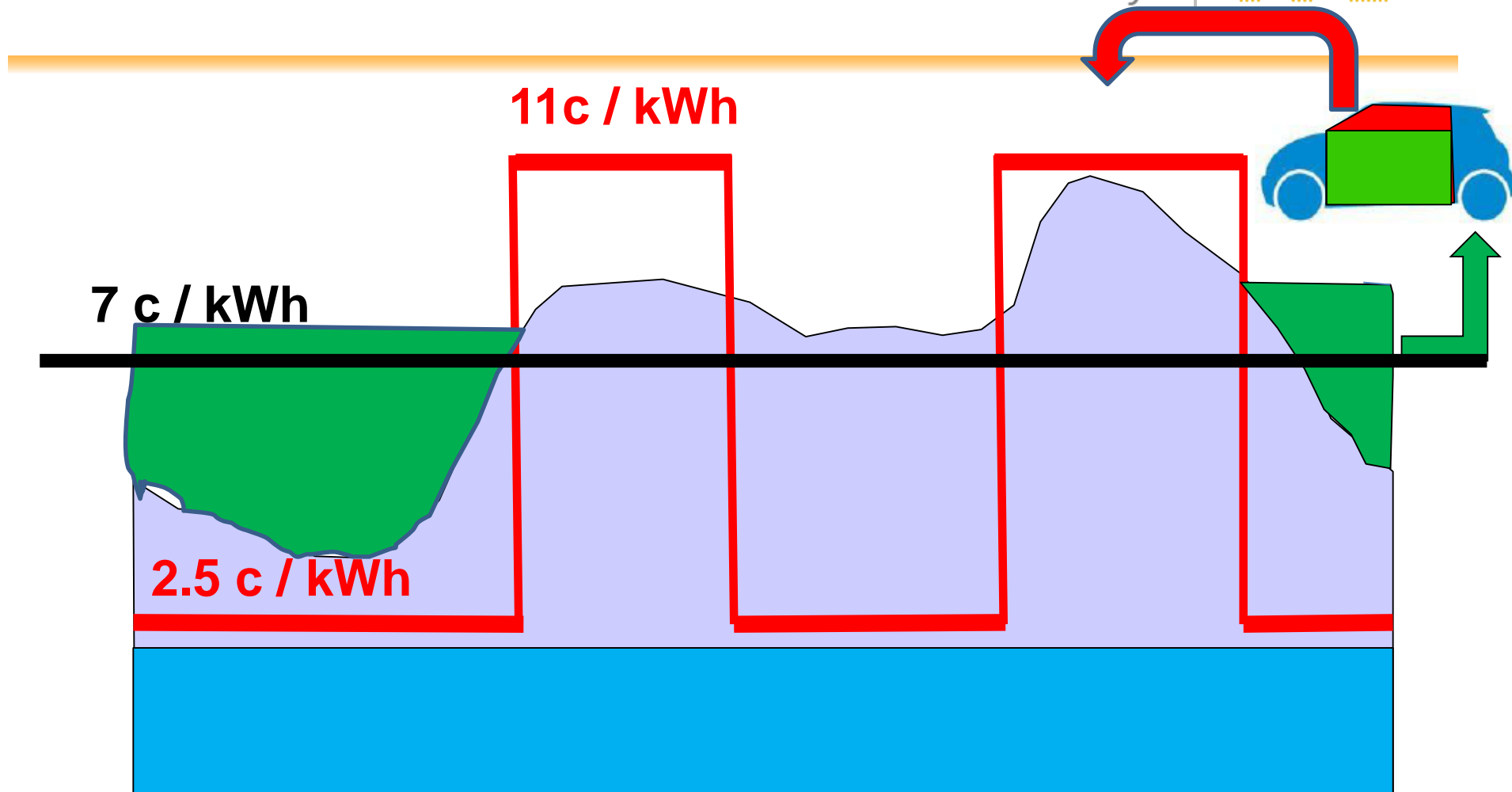
NZ's Energy Mix – Fossil Fuels Dominate Decarbonising Opportunity



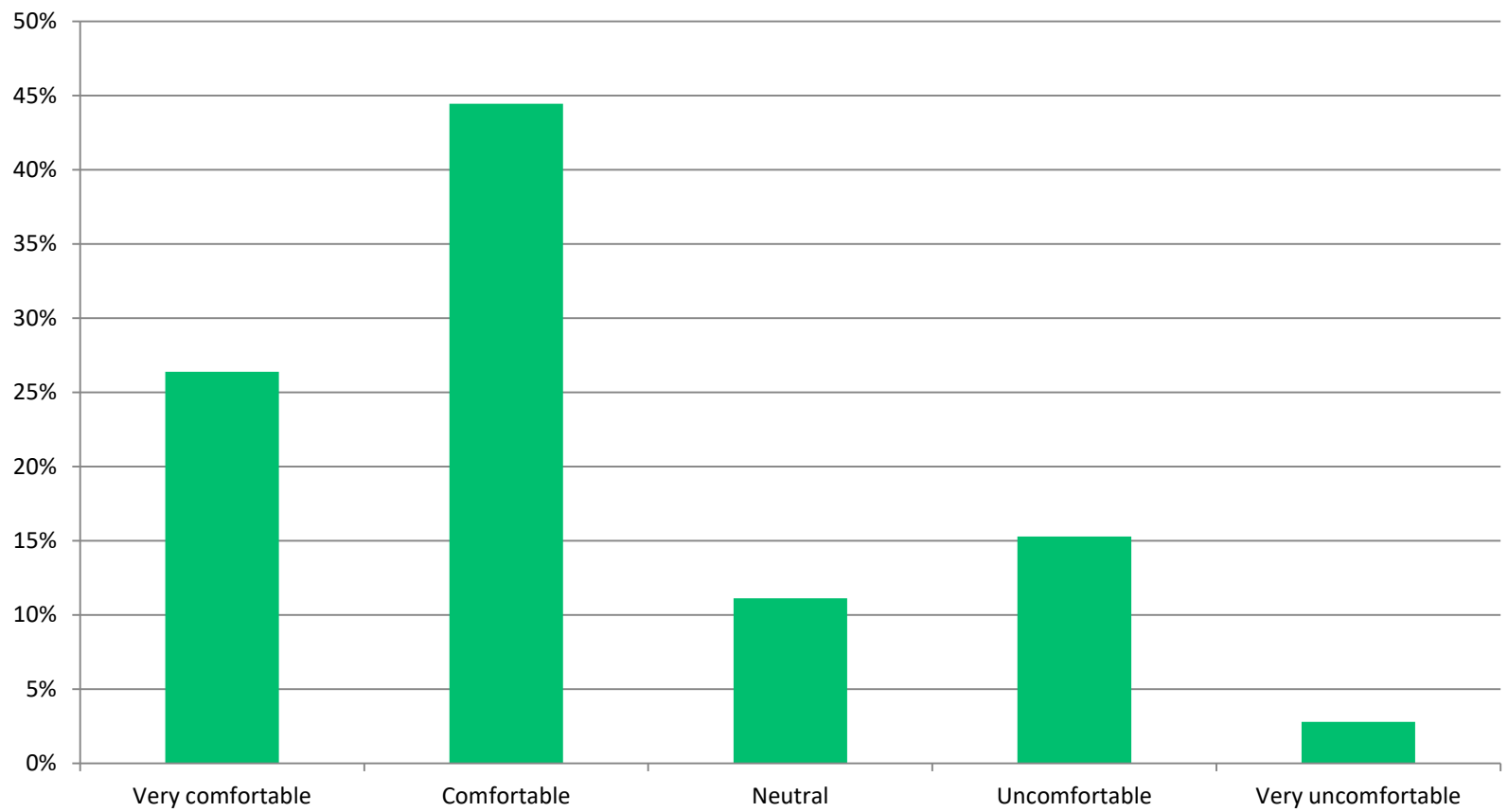


- ▶ 80% of the 25 Retailer CEO's agreed SM data access to trial a new TOU EV tariff
- ▶ 100 EV sites, 4000 non-EV sites (control)
- ▶ Trial determined effective cost reflective price to encourage home EV charging outside of the network peak demand period

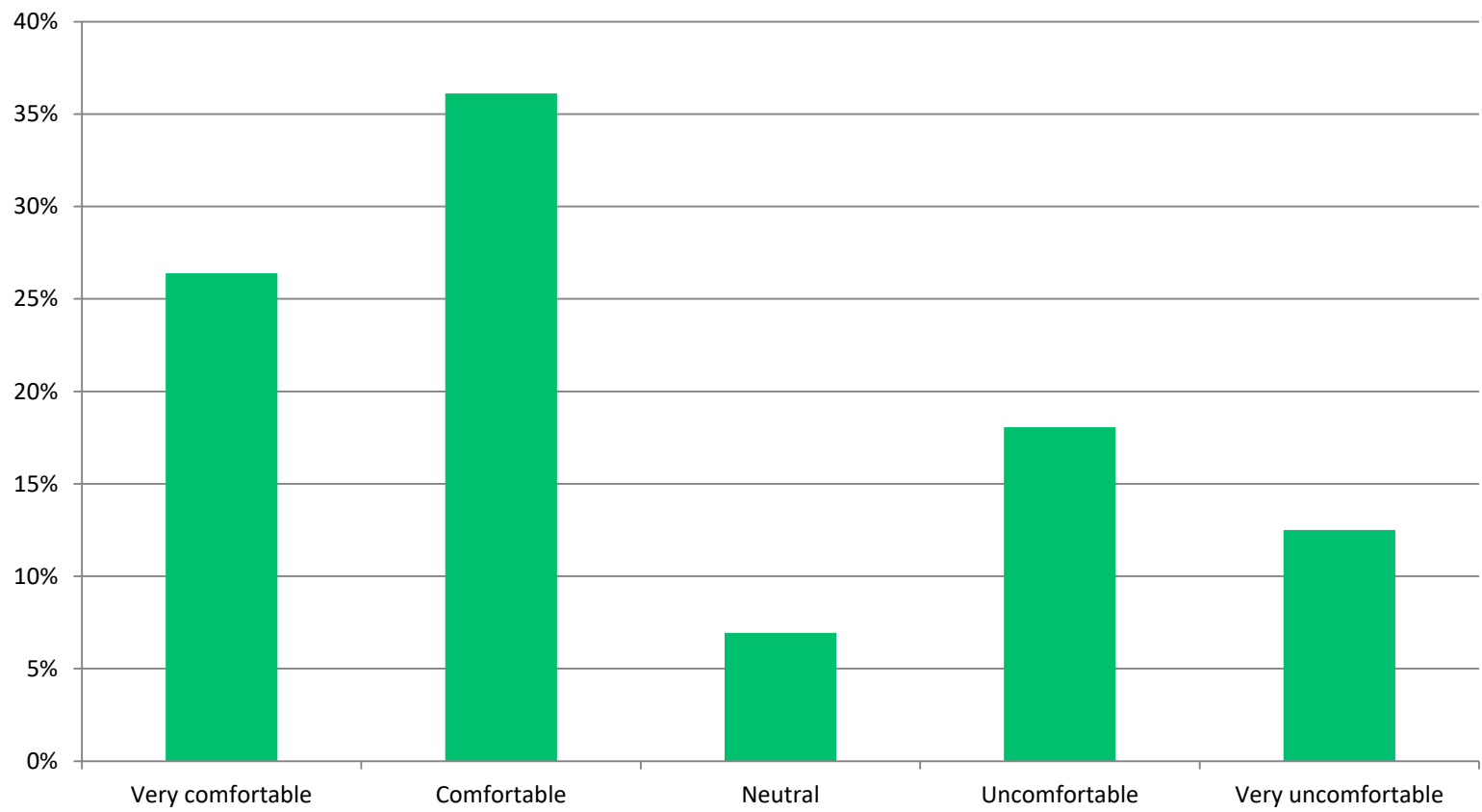
TOU (Time of Use) - Cost Reflective Price Signal



Centralised control: How comfortable would you be with the described arrangement?



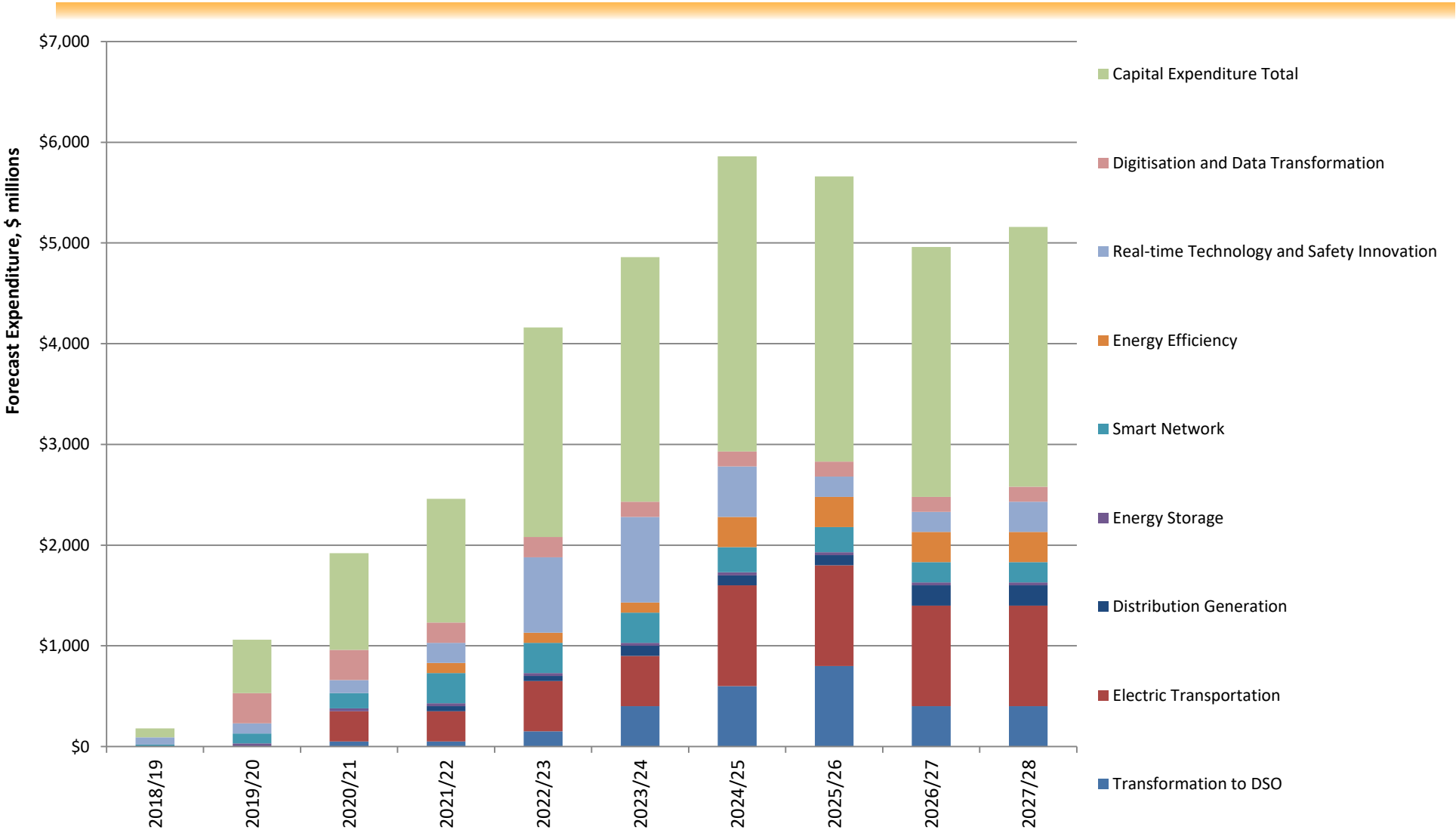
Vehicle to grid: How comfortable would you be with the described arrangement?



- Goal - Socially, Environmentally & Commercially responsible business
- New Drivers - Digitalisation, Decentralisation & Decarbonisation
- Collaborate – influence change acceptance with involvement of others (Trials with Retailers & Customers to demonstrate benefits to Regulators)
- New Tech Adopters aligned with more cost reflective pricing – rewarding correct behaviour, agile
- People still want smart services

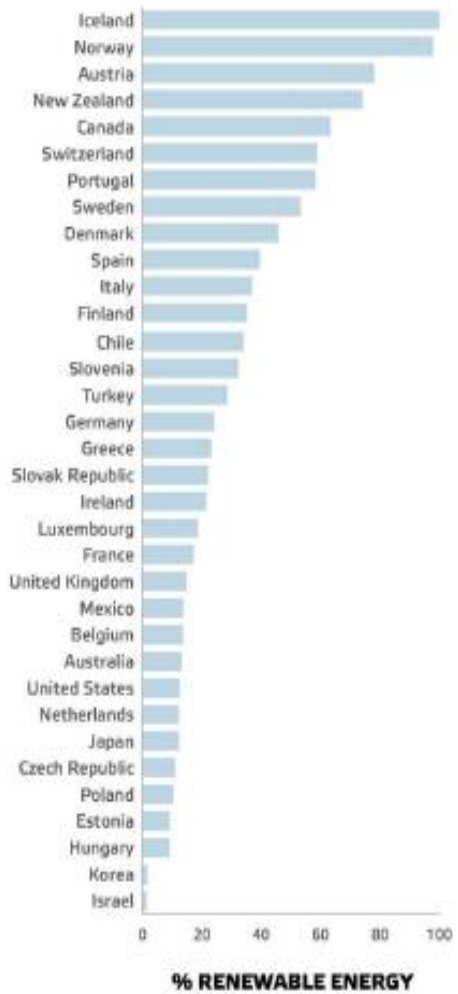


Forward Asset Investments – Smart Grid (2018 AMP)



- “Technology is not a great soloist – it needs an orchestra to be truly appreciated by the public audience”
- “The only stranding risk we will likely see will be in our own contemporary thinking – we need to progress collaboratively”
- Role for Wind

Role for Wind - Hydrogen Economy





are committed to being New Zealand's
pre-eminent electricity distribution
network company

Mission Statement:

To own and operate a sustainably profitable electricity distribution business which provides a safe, reliable, cost effective and high quality energy delivery system to our customers.

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