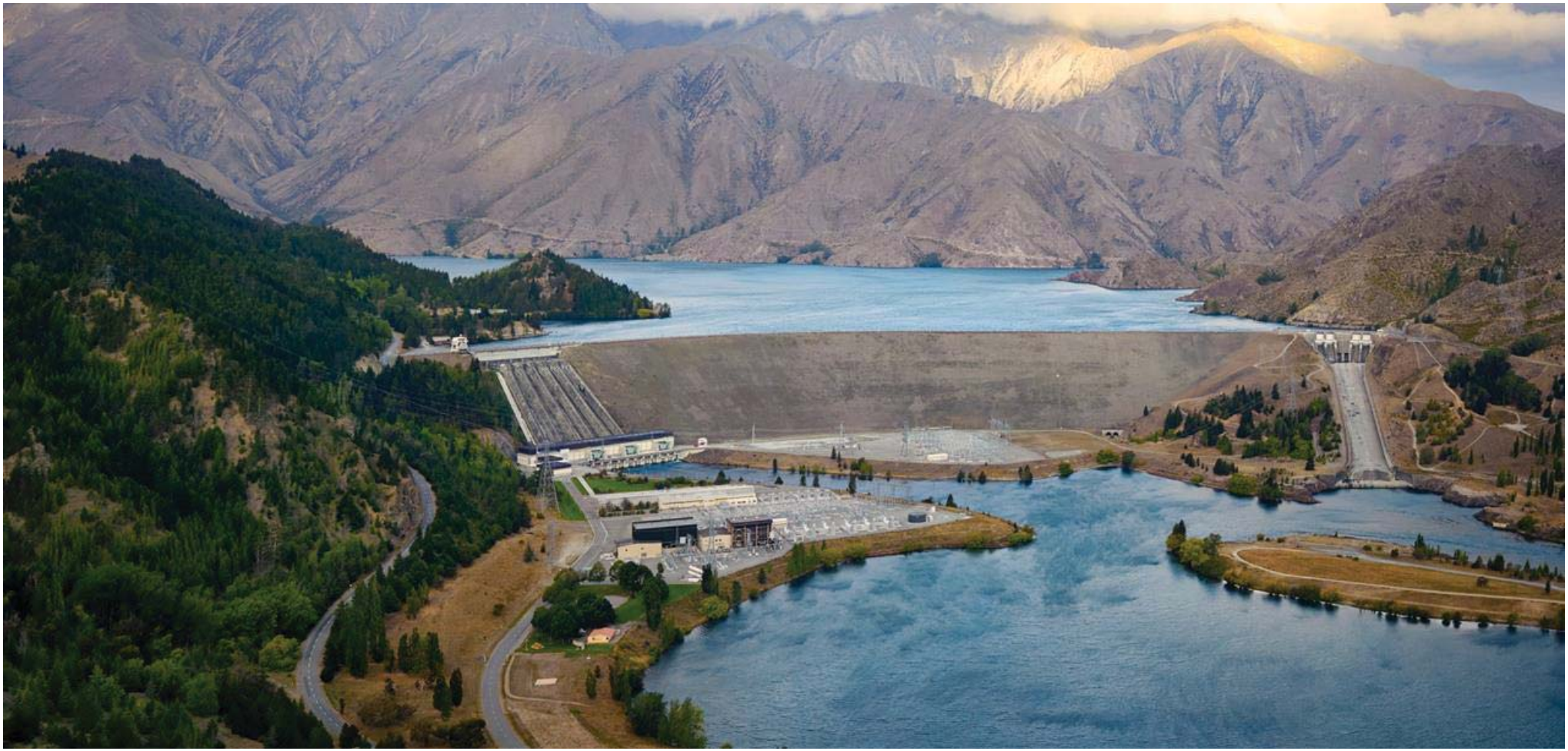
# BRIEFING TO THE INCOMING MINISTER

*Meridian Energy*

November 2017

meridian



# STRUCTURE OF BRIEFING

- Sustainable Development
- Government policy direction
- About Meridian Energy
- Meridian Energy's performance
- Key issues
  - Climate change
  - Water
  - Transmission pricing
  - Retail electricity pricing
  - Energy hardship
  - New technology

# SUSTAINABLE DEVELOPMENT

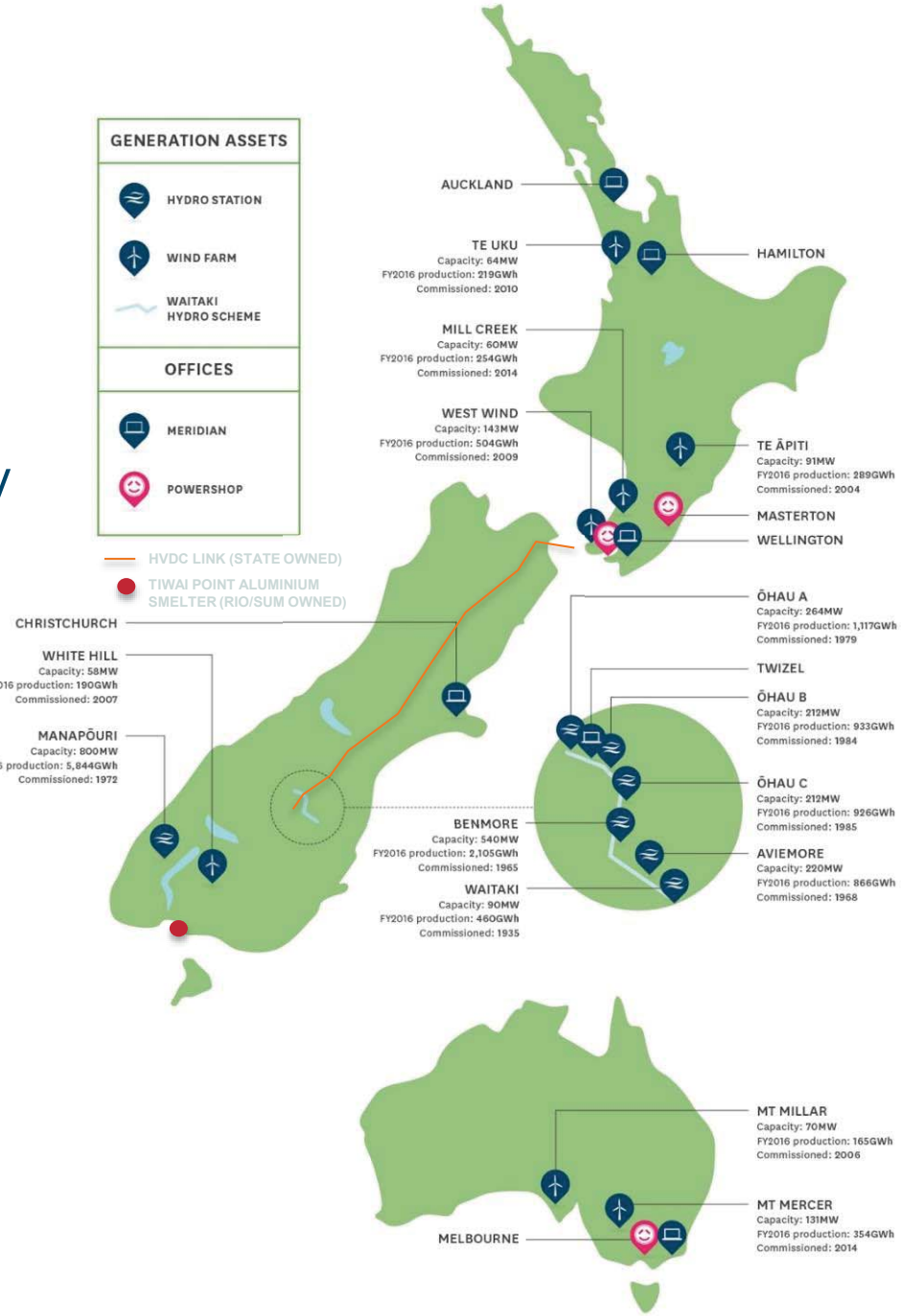
- Sustainability is what Meridian is all about.
- That we're a sustainable business is increasingly important to all our stakeholders. Taking care of the environment, our people, communities, customers and shareholders is what has led to our financial success.
- In 2017 we refreshed our sustainability framework, taking inspiration from the UN Sustainable Development Goals to which the Government (our majority shareholder) has also committed. Our focus is on the "Climate Action" and "Affordable and Clean Energy" goals. Our contribution to achieving these goals is significant, we generate around 35% of New Zealand's electricity entirely from renewable sources.
- For the past two years Meridian has been one of only three New Zealand companies listed on the Dow Jones Asia-Pacific Sustainability Index.
- Our success depends on building a better tomorrow, for everyone.

# GOVERNMENT POLICY DIRECTION

- The Government has signaled that it intends to:
  - Introduce a Zero Carbon Act and an independent Climate Commission
  - Request the Climate Commission to plan the transition to 100% renewable electricity by 2035 in a normal hydrological year
  - Hold a full-scale review into retail power pricing
  - End energy poverty in New Zealand.
- We believe this is a strong and appropriate set of policy proposals and we are keen to engage with the Government to understand and develop the details.
- We think they are broadly consistent with our sustainability and strategic goals.

# ABOUT MERIDIAN ENERGY

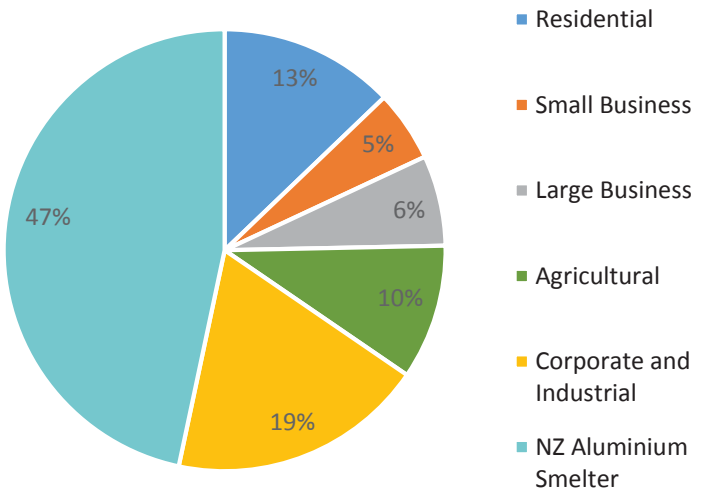
- Meridian is an integrated energy generation and retail company.
- We are the second largest company on the New Zealand Stock Exchange.
- Meridian is Majority owned by the Government and legislation precludes any other significant (>10%) shareholders.
- We are New Zealand's largest generator:
  - Committed to generating energy from 100% renewable sources
  - Seven hydro stations (Manapouri and six within the Waitaki Scheme)
  - Seven wind farms (two in Australia)
  - Suppling approximately 35% of New Zealand's total energy needs
  - Long life assets with low operating costs.



# ABOUT MERIDIAN ENERGY (CONTINUED)

- We retail to 277,000 customer connections under the Meridian and Powershop brands in New Zealand.
- Powershop retails to over 100,000 customers connections in Australia.
- Flux exports our technology by building software and brands for energy retail companies around the world.
- Our customer contracts are weighted as shown in the chart to the right.
- To cover risk in dry years, our generation will typically exceed customer contracts sold. We also enter financial agreements with North Island generators to effectively buy generation to cover our customer contracts in exceptionally dry periods.
- We have an industry leading health and safety record and we led the formation of StayLive – the industry body that coordinates safety initiatives across generator retailers and Transpower.
- Meridian, through sponsorship, supports a number of social and environmental programmes including KidsCan, the Kākāpō Recovery Programme, and the Department of Conservation's Project River Recovery.

**FY2017 Customer Sales by MWh**




meridian flux

POWERSHOP

# INVOLVEMENT IN REGIONAL NEW ZEALAND

- Over the past decade Meridian has invested around $1 billion in building 325MW of new renewable generation capacity, creating 20 permanent jobs in the regions (on top of employment for the construction).
- In the 2017 financial year we re-established our Christchurch CBD office.
- At the end of the 2016 financial year we moved our Twizel office into the town centre and grew our Twizel workforce with the addition of a customer call centre.
- Our Powershop customer call centre is located in Masterton, with approximately 100 people servicing New Zealand and Australian customers.
- Our investment in the ‘Power Up’ community fund has contributed almost $6.4 million to around 850 community-led projects over a decade.

# OUR STRATEGY

- Focus on:

Maintaining an open market in which we can compete effectively

Protecting and maximising our generation assets and wholesale position

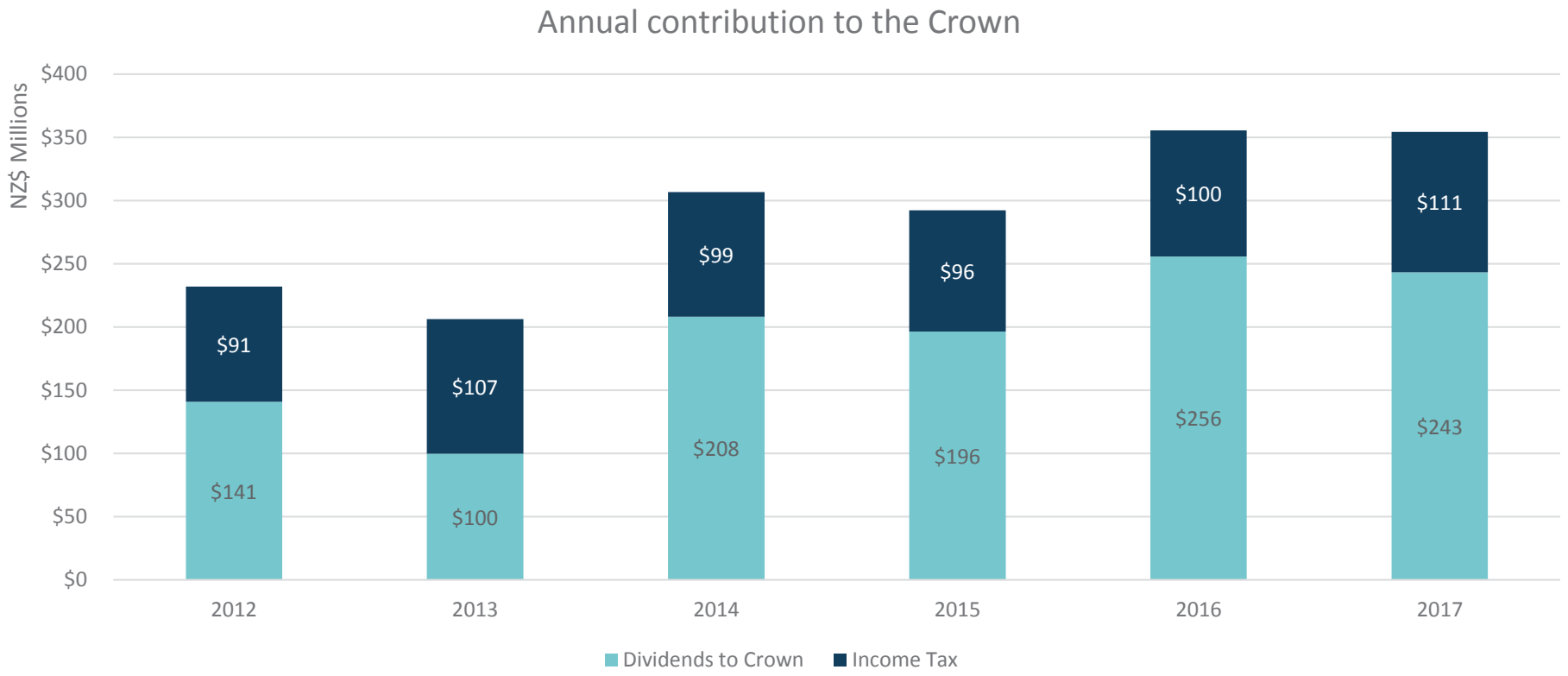
*Powering today, protecting tomorrow*

Developing opportunities for earnings growth

Growing retail value by making things easy for our customers and optimising our operations

# PERFORMANCE AND CONTRIBUTIONS TO THE CROWN

- In the 2017 financial year Meridian's net profit after tax was $197 million. Meridian's share price performed strongly, ending the financial year up 10%. This performance, combined with dividends, generated a total return for shareholders of 17% for the year.
- Meridian paid $354 million to the Crown in the form of dividends and income tax during the financial year.
- Dividends paid to the Crown have increased since the partial privatisation of Meridian in 2013.



# NEW ZEALAND ALUMINIUM SMELTER (NZAS)

- The Tiwai Point site was originally chosen for its proximity to Manapouri.
- NZAS uses the equivalent of approximately 37% of Meridian's generation and accounts for about 12% of the national demand for electricity.
- NZAS employs around 800 people.
- From 2013 we no longer have a 'physical' supply contract, instead the contract sets the price of electricity purchased on the spot market.
- The contract runs to the end of 2030 but allows for exit on 12 months' notice.
- Meridian modelling suggests NZAS is cash positive but the business is exposed to international aluminium prices and NZD / USD exchange rates. NZAS also remains heavily exposed to transmission costs. Transmission costs for NZAS were $72 million in FY17 up from $44 million 7 years ago. And these cost increases were mainly driven by North Island grid upgrades.
- If NZAS closed, 65% of energy produced in the region, primarily by the Manapouri and Clutha schemes, would flow north without further grid enhancement. Getting the balance north would require $100M of grid enhancement and 3 years' work to complete.

# CLIMATE CHANGE

- Meridian generates electricity only from renewable hydro and wind sources.
- Meridian is committed to meeting future energy needs with renewable energy and helping to minimise our country's contribution to climate change.
- New Zealand is in a unique position globally with a range of price competitive renewable generation options including wind, geothermal, and hydro.
- We see the greatest emission reduction opportunity in the electrification of transport and industrial processes that require heat. Both currently rely heavily on fossil fuels but the technology is now available to transition to electric alternatives and leverage New Zealand's largely renewable electricity generation.
- To ensure a reliable energy supply, some limited thermal capacity may need to be retained in New Zealand for times of low inflow to hydro catchments. We see this as consistent with the Government's policy to work towards 100% renewable generation in a normal hydrological year.

# FRESHWATER MANAGEMENT

- We work closely with Ngāi Tahu and other stakeholders to balance the different economic, social, cultural, and environmental implications of water use.
- Recently, we worked with Ngāi Tahu, Environment Canterbury and the Waitaki Irrigation Collective to allocate 11 cumecs of water in the Waitaki River for mahinga kai purposes.
- We will continue to work constructively with the Government on any changes to freshwater management.

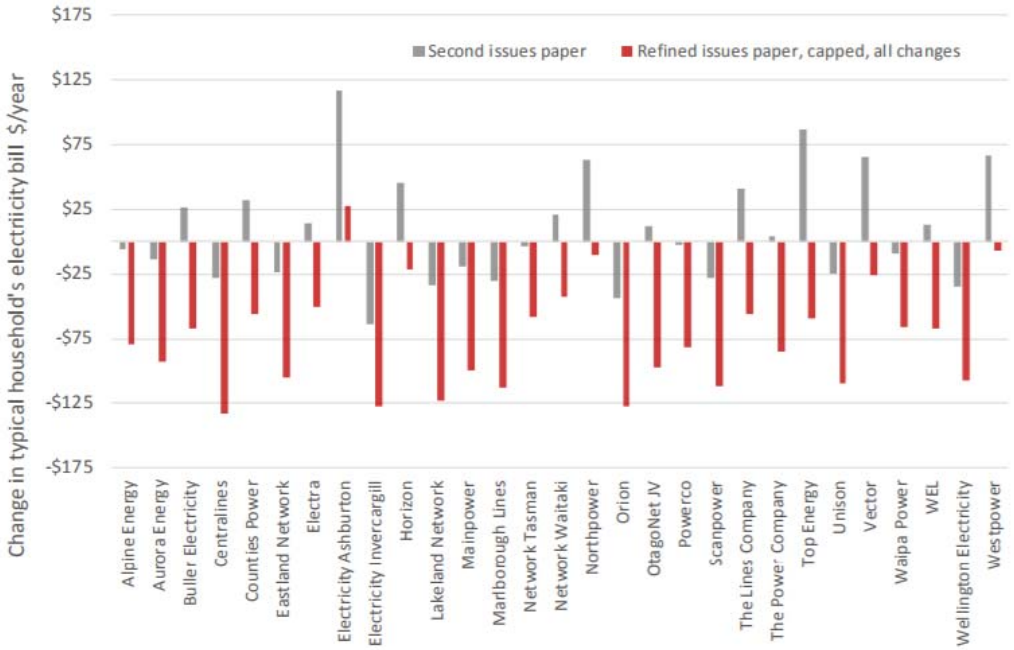
s9(2)(b)(ii)

- Appendix 3 of the NPS-FM has existed since 2014 and is designed to identify infrastructure and waterbodies where existing water quality may persist in order to realise the benefits of the infrastructure. But Appendix 3 remains empty and contains no listed infrastructure. By including the Waitaki and Manapouri schemes in Appendix 3 it will enable local planning processes to carefully consider the different interests at stake rather than require the implementation of generic national standards.

# TRANSMISSION PRICING METHODOLOGY (TPM)

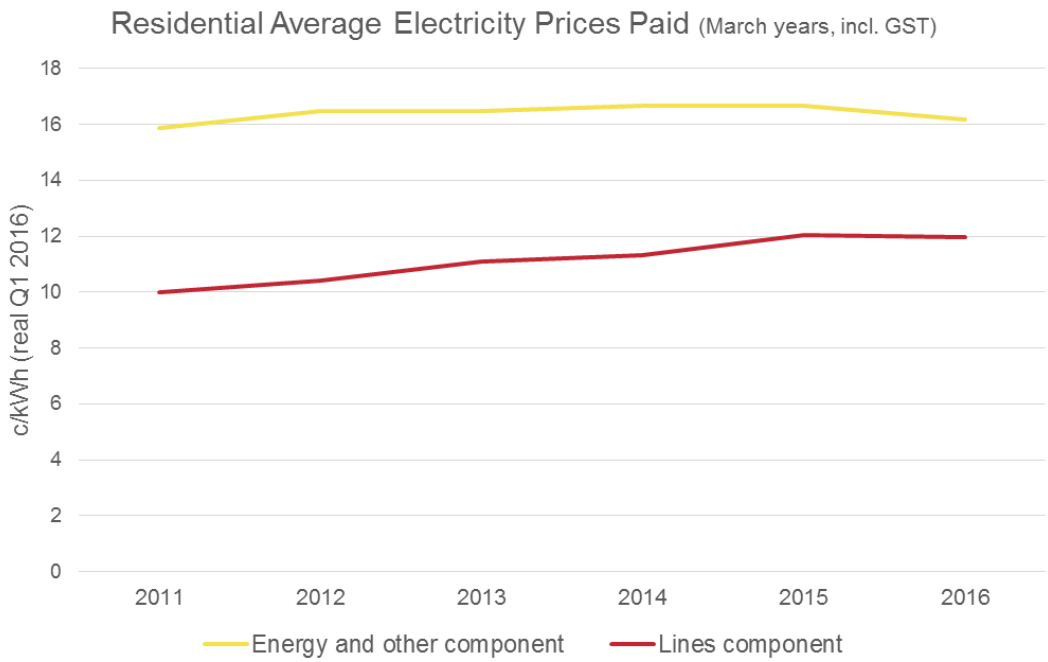
- The TPM has been under review since 2009 and a contentious issue for longer. It is currently on hold while new Electricity Authority board members come up to speed.
- The TPM allocates Transpower's annually allowed revenue of around $1 billion – set by the Commerce Commission – among generators, the 29 distribution networks, and grid connected industrial consumers like NZAS.
- A subset of the overall transmission revenue relates to the inter-island HVDC link. Currently, South Island generators pay for the HVDC costs (Meridian pays around 70%) despite national benefits from the HVDC link.
- The Electricity Authority considers the current TPM to be inefficient so is proposing to adopt 'beneficiary pays' – meaning those who benefit from a particular grid investment pay more.
- The Electricity Authority anticipates no increase on average for residential electricity bills and is well placed to make an evidence based decision.

**Indicative impact ($/year) on a typical household's electricity bill (all changes 2020 impact)**



# RETAIL ELECTRICITY PRICING

- Retail competition is fierce. Customers are aware that they have a choice and switch providers in significant numbers.
- New Zealand has the eleventh lowest residential electricity prices among the 32-country OECD.
- In 2017 the International Energy Agency described New Zealand as "…a world leading example of a well-functioning electricity market, which continues to work effectively."
- Transmission and distribution costs make up approximately 40% of a customer's bill.
- It is at least questionable whether it is efficient to have 29 separate distribution networks.
- Competitive parts of the supply chain (generation and retail) have contributed little to real price changes since 2011. It is the regulated, natural monopoly lines businesses that have driven real price changes.



# ENERGY HARDSHIP

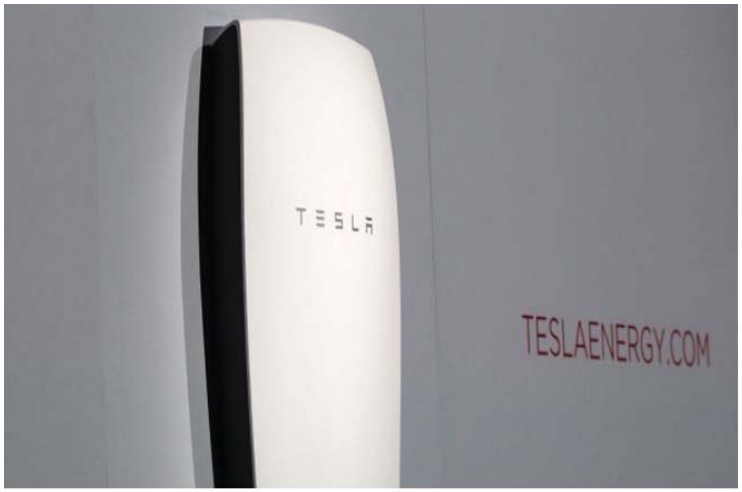
- Energy hardship is a multi-faceted issue requiring a range of responses.
- Policies and measures aimed at improving the energy efficiency of homes and appliances should continue to be pursued.
- The relative merits of energy-related income supplements, and rebates based on a percentage of consumer bills, should be explored further as the most promising approaches for delivering financial support.
- Challenges include:
  - delivering support proportional to need and variations in energy circumstance
  - avoiding unintended consequences
  - minimising implementation costs.
- Energy-related income supplements (e.g. winter fuel supplements on a means-tested basis) can be lower-cost to implement than other assistance measures.
- Alternatively, delivering support in the form of percentage rebates on bills may deliver support proportional to need, with low risk of unintended consequences.
- The first priority should be to remove the Electricity (Low Fixed Charge Tariff Option) Regulations.

# ELECTRICITY (LOW FIXED CHARGE TARIFF OPTION) REGULATIONS

- Originally an initiative to incentivise people to use less electricity and to assist vulnerable customers.
- Fixes the maximum per day charge at 30 cents a day (compared to say $2.41 a day for a standard tariff) and combines this 30 cents a day 'low fixed charge' with a relatively high variable (per kilowatt hour) charge.
- Incentivises people to use less electricity and means your overall cost of electricity is lower **IF** your annual usage is below 8,000kWh (9,000kWh in lower South Island).
- The fixed component of a low user tariff doesn't cover the costs of a network connection. This means there is a cross subsidy from those on standard tariffs to those on low user tariffs.
- Benefits low users of electricity regardless of whether:
  - they are rich low users or poor low users (but doesn't help poor customers who use a lot of electricity e.g. large families).
  - the reason for their low use is because they also use natural gas or a log burner, live in an apartment, have a household of one or two people, or have the means to invest in energy saving insulation, fittings, and appliances.
- Approximately half of NZ's residential electricity customers are on the low fixed charge tariff option and a significant number of these are high income households. The policy has been totally defective in assisting the low income households for whom it was supposedly designed. Many of the larger consumers who use more electricity out of necessity are lower income households who can least afford their own consumption, let alone effectively subsidise other consumers on low user tariffs.

# NEW TECHNOLOGY

- Solar uptake is increasing as the economics slowly improve, including for commercial customers.
- Residential solar payback remains high (13 years).
- The value of batteries is in load shifting (high to low price periods); use of grid scale batteries is likely to be low due to large hydro storage.
- Solar and batteries to achieve residential off grid remain very expensive (20 year payback).




- Electric vehicle (EV) levels are growing (currently 4,909) with uptake dependent on the second hand import market.
- EVs are the greatest opportunity for emissions reduction in New Zealand.
- Uptake will have system impacts particularly network resilience during higher peak periods but we expect distribution networks will evolve to meet customer demand as EV penetration increases over time.


- Tariffs to incentivise off-peak charging are now in the market. Meridian's Rest Easy EV Plan has rates from 9pm to 7am that are as low as the equivalent of 20 to 30 cents per litre (depending on network charges).