



Electricity Retailers' Association of New Zealand

Four key electricity issues: A briefing

December 2017

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INTRODUCTION

The Government has identified in its coalition agreements, a desire to improve the cost, efficiency and environmental benefits of the electricity sector. The election campaign manifestos of the parties in the coalition signalled just how pertinent electricity is to living standards, economic productivity and the environment.

This document is a briefing on four issues which are of interest to customers, the government and the electricity sector right now.

The electricity sector faces a time of great change and opportunity for New Zealand. Our electricity sector continues to demonstrate remarkable performance with sustainability, reliability, competitiveness, affordability and security of supply: remaining one of the best in the world.

New Zealand's strength in renewable electricity generation provides one of the best opportunities to transition to a low-emissions economy, particularly in transport and process heat. The 100% renewable electricity target (under normal hydrological conditions) is one the sector will support the government to achieve, but it must also be balanced with the need to keep prices reasonable and supply secure.

New Zealand's strength is also in its market design which has delivered one of only four highly competitive retail markets in the world. We have some of the most innovative and customer-centric electricity retail brands, exporting this intellectual property and information technology to the world. We have over 35 electricity brands in the market of varying sizes and it is one of the easiest places in the world to compare and switch electricity provider.

But there are also challenges. Electricity Retailers must respond to new and evolving customer demands and continual technology development. Others in the sector, including the regulators are facing similar challenges as new technology and customer demands are changing the traditional market structures and enabling greater customer choice than ever. There are also challenges given the vital role of electricity in our lives and to ensure that there is support for all customers to have access to energy when and wherever necessary.

And there are always improvements that can be made.

There are four main areas that Electricity Retailers Association of New Zealand (ERANZ) considers are important issues for New Zealand and for the government, and we seek to work with you to address.

This document discusses these challenges and sets out:

- **the steps ERANZ believes the Government could take**
- **the actions ERANZ is undertaking to address these issues**

The four main issues are

1. Energy hardship

We know that some customers struggle to pay their power bills. We also know that the reasons for this are complex and inter-related with many factors, such as income level, quality of housing and appliances, and efficient use of energy.

The electricity sector is not the sole cause of this, but we can be part of the solution.

ERANZ recommends the Government could:

- Remove the Low-user fixed charge which is causing pricing distortions and negatively impacts many low-income families;
- Encourage a holistic cross-agency perspective to the issue, particularly across housing, social welfare, financial capability, as well as energy;
- Work with the electricity retail sector to promote and implement the Winter Energy Payment, and other initiatives such as the Healthy Homes Act.

What ERANZ and members are doing

- For the first time in New Zealand, in October 2017 a group of relevant government, business, health, academic and social agencies were pulled together to look at the issue of energy hardship from the end-user's perspective. ERANZ coordinated the session and we aim to get some pilots up-and-running in 2018.
- Electricity retailers have been working over the last four years to improve processes and services for customers who struggle with their bills. The Electricity Authority has Guidelines to Assist Vulnerable Customers and to ensure that disconnection is always an act of last resort where customers are acting in good faith. Retailers have been gathering more statistics to understand how early intervention efforts can improve results for customers.
- ERANZ is working with the Ministry of Social Development to ensure the process between Work & Income and retailers is working smoothly and customers in need can access the right support. Through this process we uncovered that in 2016 some Work & Income offices were requiring customers to have a disconnection notice before receiving a Hardship Grant. This was not Head Office policy and was swiftly remedied. We now have a regular process to ensure any errors like this are identified.
- Besides offering a choice and different pricing plans and structures (eg. pre-payment, smooth pay, flat price, spot price or time of use pricing) some electricity retailers are also providing additional support for Vulnerable Customers. For example, Genesis is a major sponsor of the Curtain Bank; Mercury and its Glo-Bug brand is working with the Healthy Homes Initiative in Auckland, as well as continuing its 18 year relationship with Starship Hospital; Flick Electric Co. recently partnered with social agencies in Auckland, Christchurch and Wellington to give out 10,000 LEDs; Meridian has been involved with KidsCan since 2013; Trustpower sponsors the national and regional Community Awards recognising volunteers; and Nova Energy through the Todd Foundation sponsors organisations that support NZ families, children and young people.

2. Fit-for-purpose future regulatory framework

To unlock both value for consumers and unleash the future potential of the electricity sector to deliver a low-emissions economy, there needs to be a review of the structure and scope of the regulatory framework in New Zealand. The way that new technology is developing has meant that there is a lack of clarity about what is a function of the contestable market (e.g. retailers, generators, and businesses offering other services such as solar, battery, and home energy management software) and what is allowed to be recovered from consumers of the regulated businesses (particularly lines companies). This is leading to market and investment uncertainty, as well as impacting on opportunities for more businesses to develop, which might not be for the long-term benefit of customers.

ERANZ recommends the Government could consider:

- Include in the pricing review terms of reference, an assessment of the sector structure with a view to assessing the limits and opportunities of boundaries between parts of the system that can be changed to truly enable the delivery of innovation in the electricity sector;
- Investigate whether there are further efficiencies that can be gained by faster implementation of standardisation and pricing reform, and developing the network as a platform for services so that innovation can thrive. This was raised as a particular recommendation in the International Energy Agency 2017 report. This is a complex area and that complexity (from 29 lines companies) drives costs into billing, and can present a barrier to small retailers entering different regions.

What ERANZ is doing

- Over the last couple of years ERANZ has been engaging formally and informally with the regulatory bodies, the Commerce Commission, the Electricity Authority, and MBIE, to raise concerns and evidence about issues with the structure of the market over the last couple of years. A level playing-field is necessary to ensure competition develops and New Zealand customers benefit, particularly in the areas of batteries, solar, and electric vehicles, and that monopolies do not use their position to gain information and unfair advantage.
- We have been encouraging greater transparency and information disclosure of lines company network constraints and trends which could signal opportunities to others in the market, such as for distributed generation. There by networks still get the benefit of new technology and the competitive market is also able to develop.
- As well as offering sharp pricing, ERANZ members have been partnering with solar and battery providers, with EV charging infrastructure providers and with lines companies to trial and roll-out these new technologies to see how customers will respond.

3. Access to data

Part of the way to enable more innovation in the electricity sector is from the analysis of customer data, as well as data from the network. Responsible and ethical collection, use and management of customer data are matters of increasing interest for customers. Privacy, security, and driving innovation from customer data are all important considerations as technology allows us to better understand use of energy systems and help lower costs for individual customers. The sector needs to discuss and clarify the regime and rules for enabling customer data to be shared in a confident way that facilitates opportunities and minimises risks. This discussion also needs to extend to sharing network data so that it can unlock business opportunities for others, and help networks reduce their costs.

ERANZ recommends the Government could consider:

- Initiating a discussion for the approach that New Zealand wants to take around access to, use of, and protection of customer data, as well as opening up opportunities in network data.

What ERANZ is doing

- ERANZ has developed a set of Core Data Values which are a commitment to a culture of best practice and enhancing customer confidence and trust in the data practices of ERANZ members. We have been engaging with the Office of the Privacy Commissioner and the Data Futures Partnership over the last year in the development of the Values.

4. Pride in New Zealand's electricity system

- New Zealand has a world-leading electricity system and this is something for which we ought to be incredibly proud.
- We have the third highest level of electricity from renewable sources in the OECD - around 85% renewable electricity.
- We rank 3rd lowest out of 25 countries for energy-security risk.
- We are in the top 10 in the world on the World Energy Council's trilemma of affordability, security and renewability.
- We have the 11th lowest residential prices (out of 32) in the OECD.
- The ease in which to change electricity company is one of the best and fastest in the world.
- Many of the higher ranked OECD countries have only achieved lower electricity prices on the back of government subsidies, which have ultimately cost taxpayers more.
- Our electricity reliability is 99.97%.
- We do not have the power shortages or power outage issues of the UK, the US or Australia.

ERANZ believes that any review of the electricity pricing in New Zealand needs to consider relevant international comparisons, and be aware of the interplay between a 100% renewable target and a focus on downward pressure on prices.

Our renewable electricity sector provides one of the best opportunities to reduce emissions from the transport and process heat sectors. NZ has a remarkable competitive advantage in electricity due to our reliability, renewability, and competitiveness.

What ERANZ is doing

ERANZ has developed a series of graphs to demonstrate how New Zealand's electricity pricing and use compares on global standards.

The Electricity Retailers' Association of New Zealand (ERANZ): An Introduction

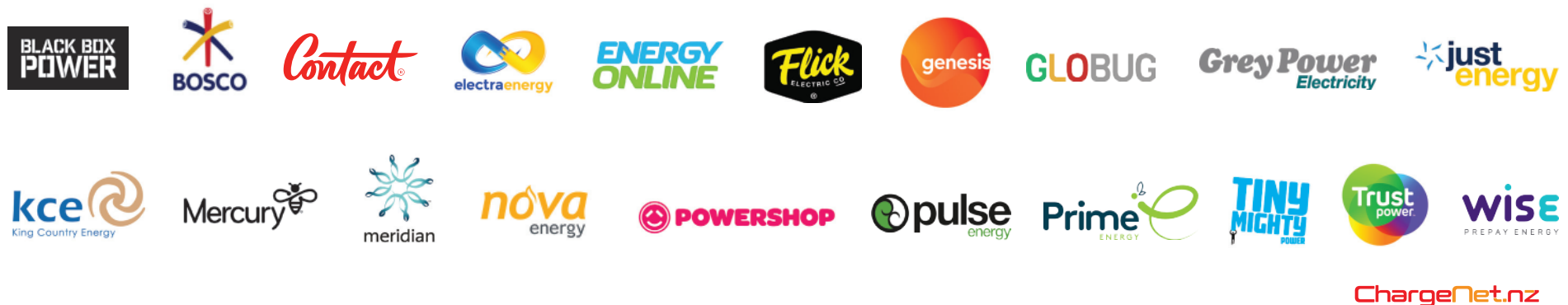


The Electricity Retailers' Association of New Zealand (ERANZ) was established in August 2015 and represents companies that sell electricity to New Zealand customers and businesses. ERANZ's role is to promote and enhance a sustainable and competitive retail electricity market that delivers value to New Zealand electricity customers.

ERANZ provides a forum and a collective voice to discuss and tackle issues of the day (as well as the future), that affect electricity retailers and their customers. ERANZ looks at the big issues such as what a fit for purpose electricity regulatory system should be to meet the needs of the customer of tomorrow, as well as the reputation of the

sector, and ensuring that retailers are using best practice in meeting the needs of all their customers.

ERANZ membership represents 99.5% of the retail market by customer count. Our membership includes Genesis Energy, Contact Energy, Mercury, Meridian, Trustpower, Nova Energy, Pulse Energy, Flick Electric Co., Prime Energy, Powershop, Energy Online, Bosco, Glo-bug, Grey Power Electricity, Just Energy, Blackbox Power, King Country Energy, Pioneer Energy Retail and Tiny Mighty Power. Collectively these retailers manage over \$7 billion of transactions and millions of customer contacts per annum.



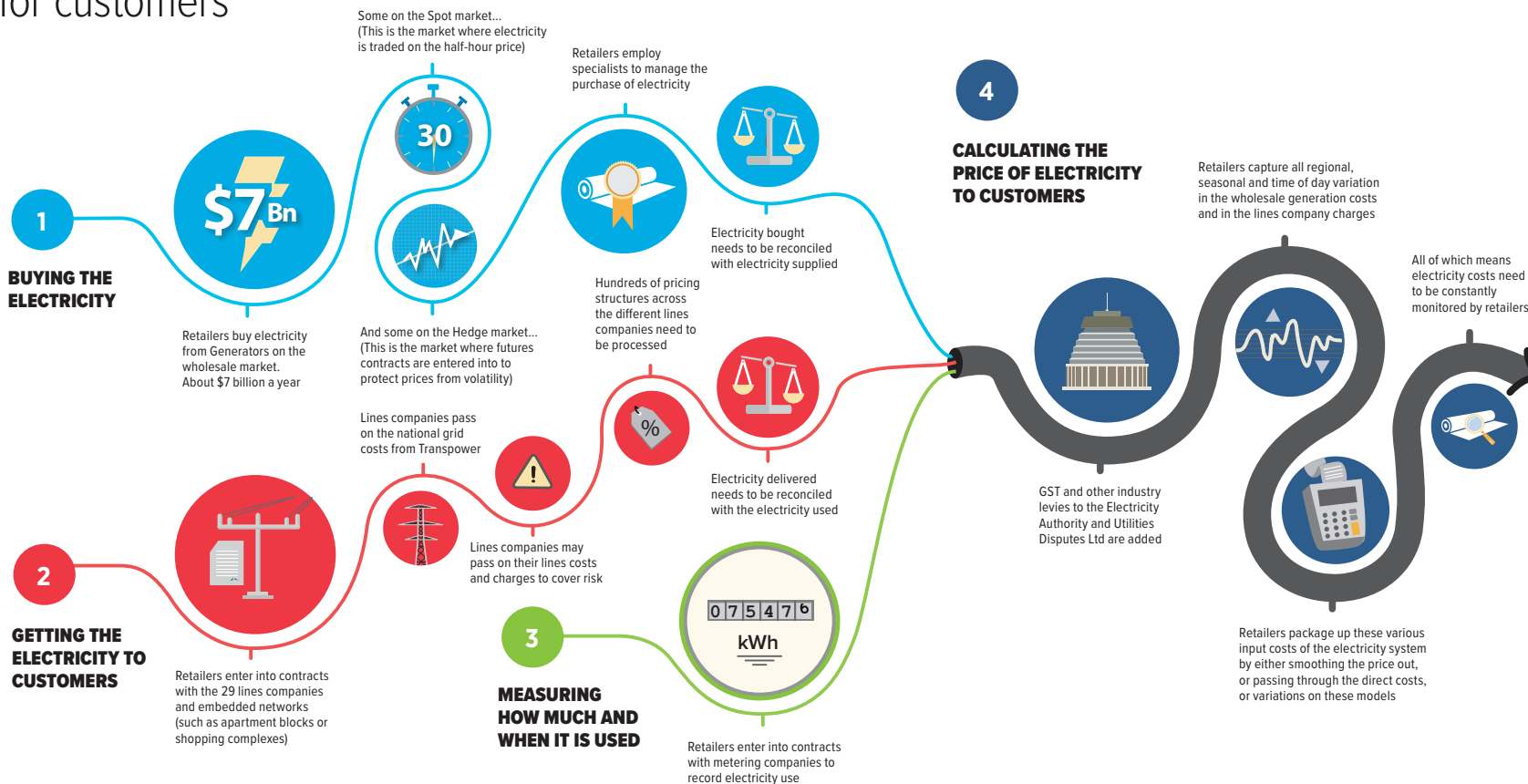
Retailers in the regions

(as at December 2017)

New Zealand's electricity market has become increasingly competitive since full retail competition was introduced in 1999. There is now real competition and customer choice in each region of New Zealand.



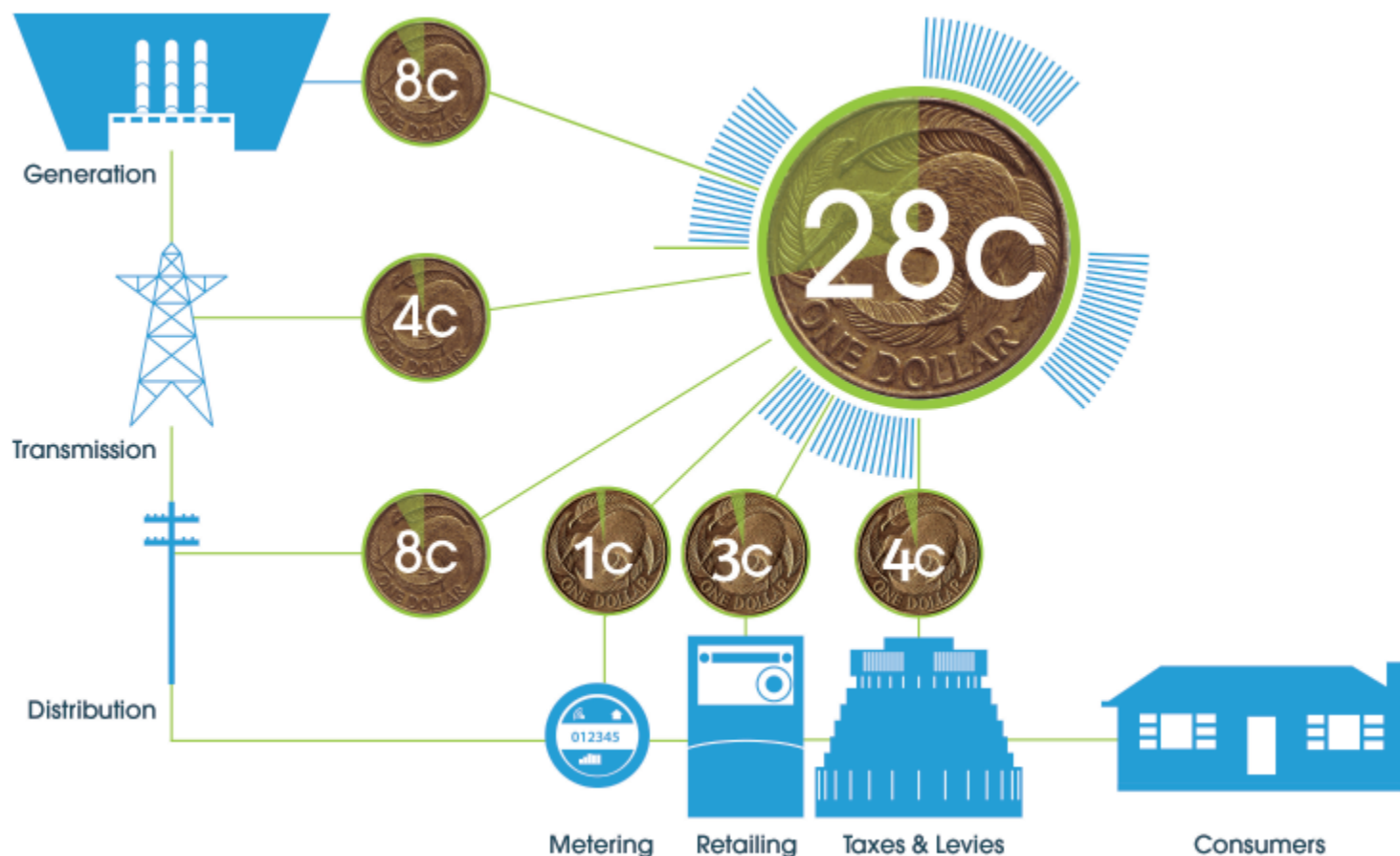
Behind the light switch: how retailers simplify NZ's complex electricity system for customers



- 5 PROVIDING THE BEST SERVICES & PRODUCTS FOR CUSTOMERS**
- Regular engagement to understand customer needs and preferences
 - Assisting vulnerable customers manage bill payments and managing credit and bad debt risk
 - Regular engagement with customers who are Medically Dependent on electricity
 - Developing and promoting pricing plans and services and providing insights into electricity use
 - R&D on technology and innovative services
 - Deliver outage notifications on behalf of some lines companies

New Zealanders can rely on reliable and affordable electricity at the flick of a switch 99.97% guaranteed

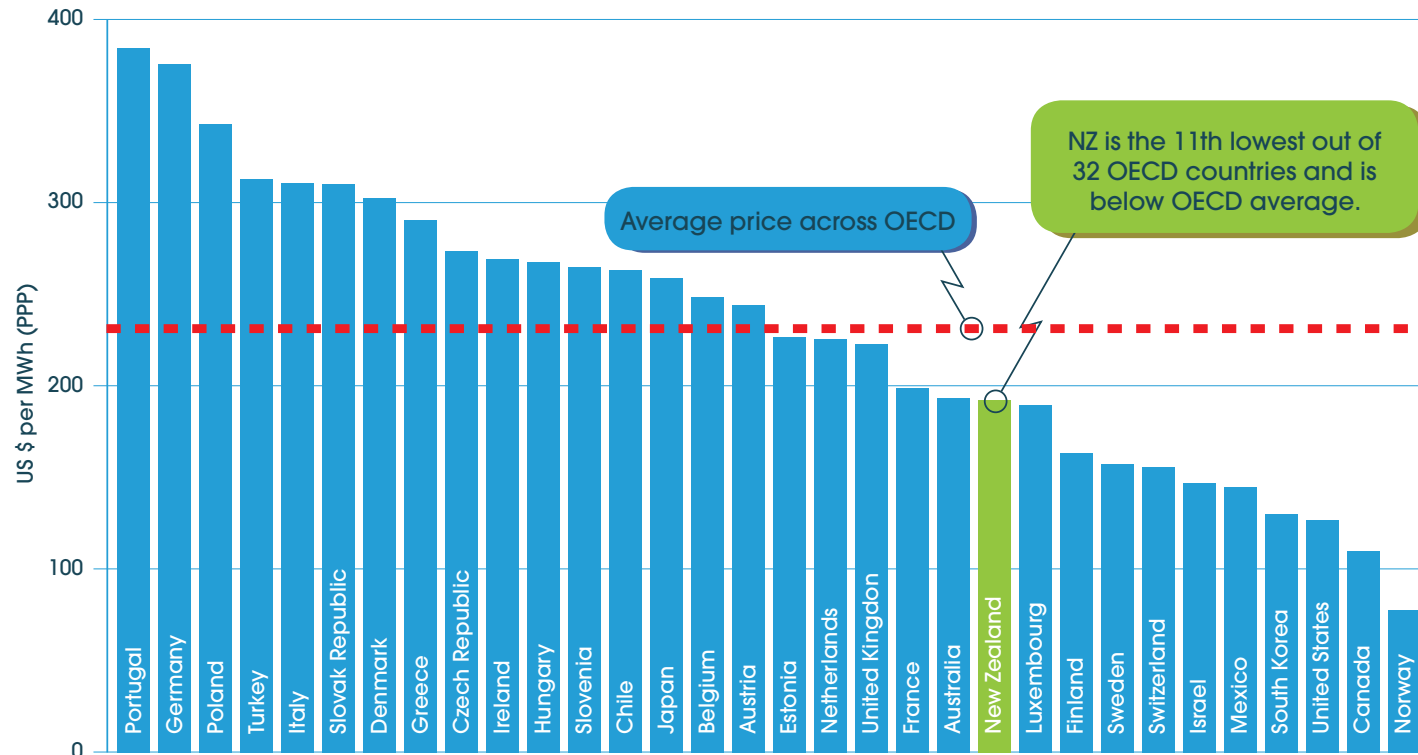
Breakdown of residential electricity unit price



The 'headline' electricity price (collected by MBIE) is around 28c. This price is not static and the price the customer pays can vary based on their retail plan, the region, the time of day, the season, the hydrological conditions, or even whether parts of the system are out for maintenance: all due to the multiple parts of the supply chain that make up the electricity sector.

Is that price reasonable? ...

International comparison of residential electricity costs



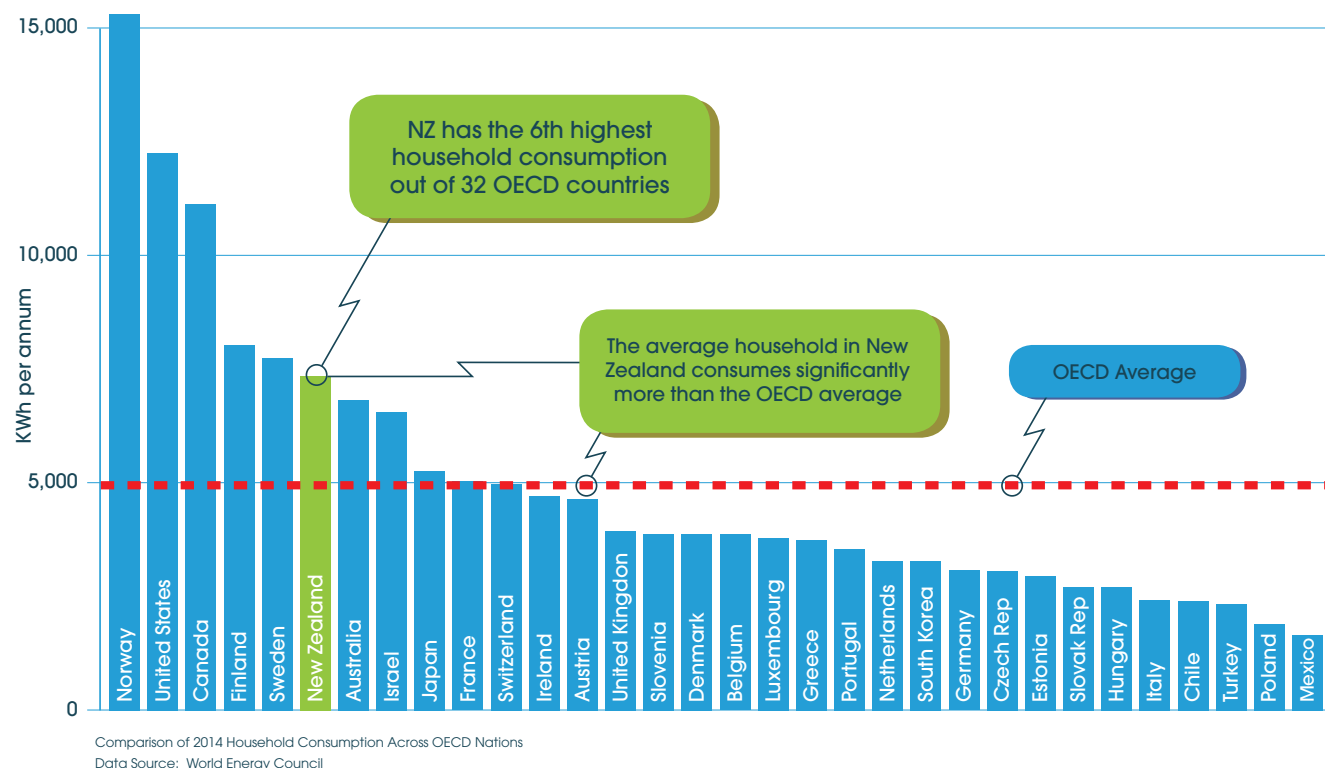
Price comparisons between are on a purchasing power parity (PPP) basis
Data Source: Ministry of Business, Innovation, and Employment (2017)

New Zealand
prices are below
OECD average

Research shows that, while many do perceive that New Zealand's residential electricity prices are high, we are actually near the middle of the range when compared to other similar countries. Among the industrialised countries that make up the OECD, NZ is 11th lowest out of 32 for residential electricity costs.

So why is there a perception that electricity in New Zealand is expensive? . . .

International comparison of residential electricity consumption



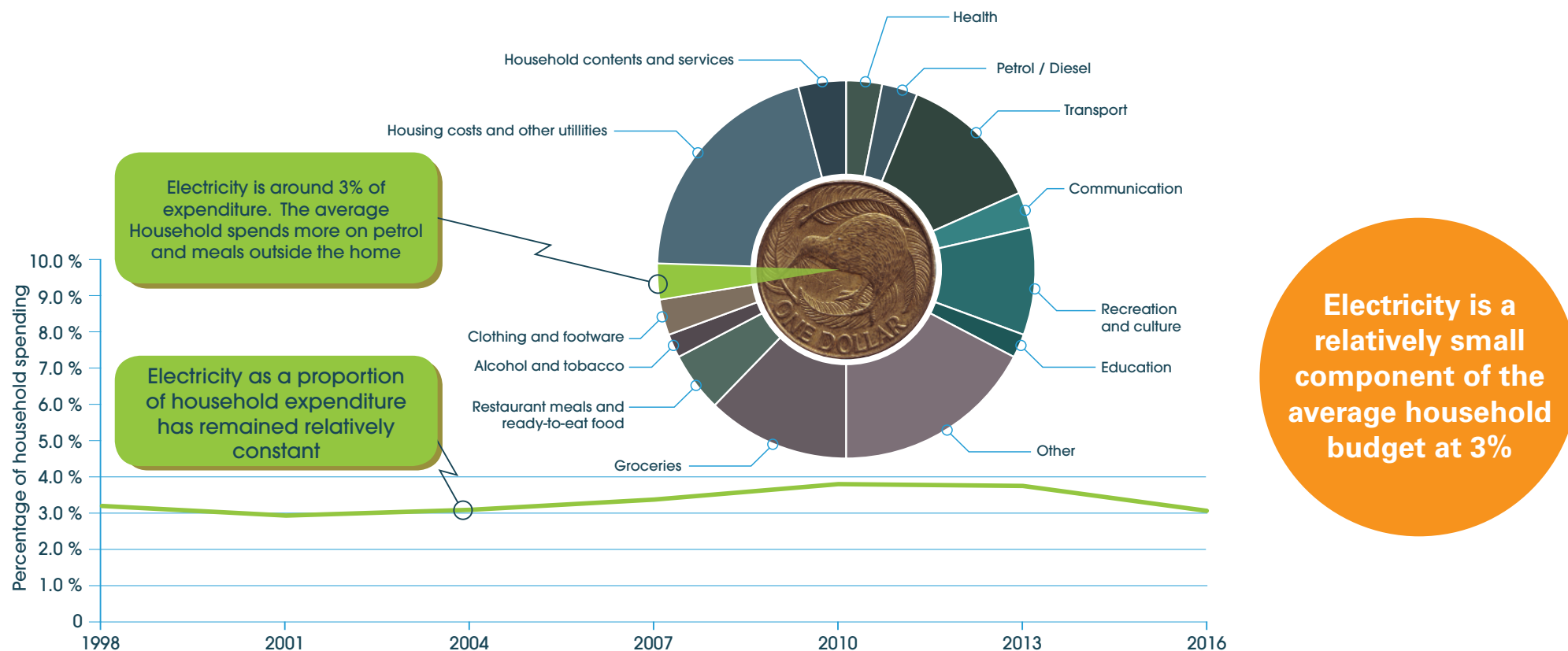
New Zealand is above the OECD average in terms of how much electricity we use

One of the main reasons that there is a perception that electricity is expensive in NZ is that our electricity consumption rate is high. We are above the OECD average, meaning that despite our comparatively lower prices, we use a lot of electricity and therefore our bills are higher. In 2013, New Zealand had the 6th-highest consumption of electricity per head of population in the OECD.

There are several structural reasons for this. One reason is that New Zealand households predominantly use electricity as their main fuel source for heating (space and water), however in other countries, there is a much higher use of gas, diesel or wood for heating. Another reason is that it takes a lot more energy to heat New Zealand homes due to the relatively poor quality of our housing stock, from lack of insulation and double-glazing, as well as low efficiency heaters and appliances. Many New Zealand homes are not warm enough and fall below the World Health Organisation's recommended minimum indoor temperature of 18°C in living areas and 16°C in bedrooms.

How does electricity compare to other household expenditure?

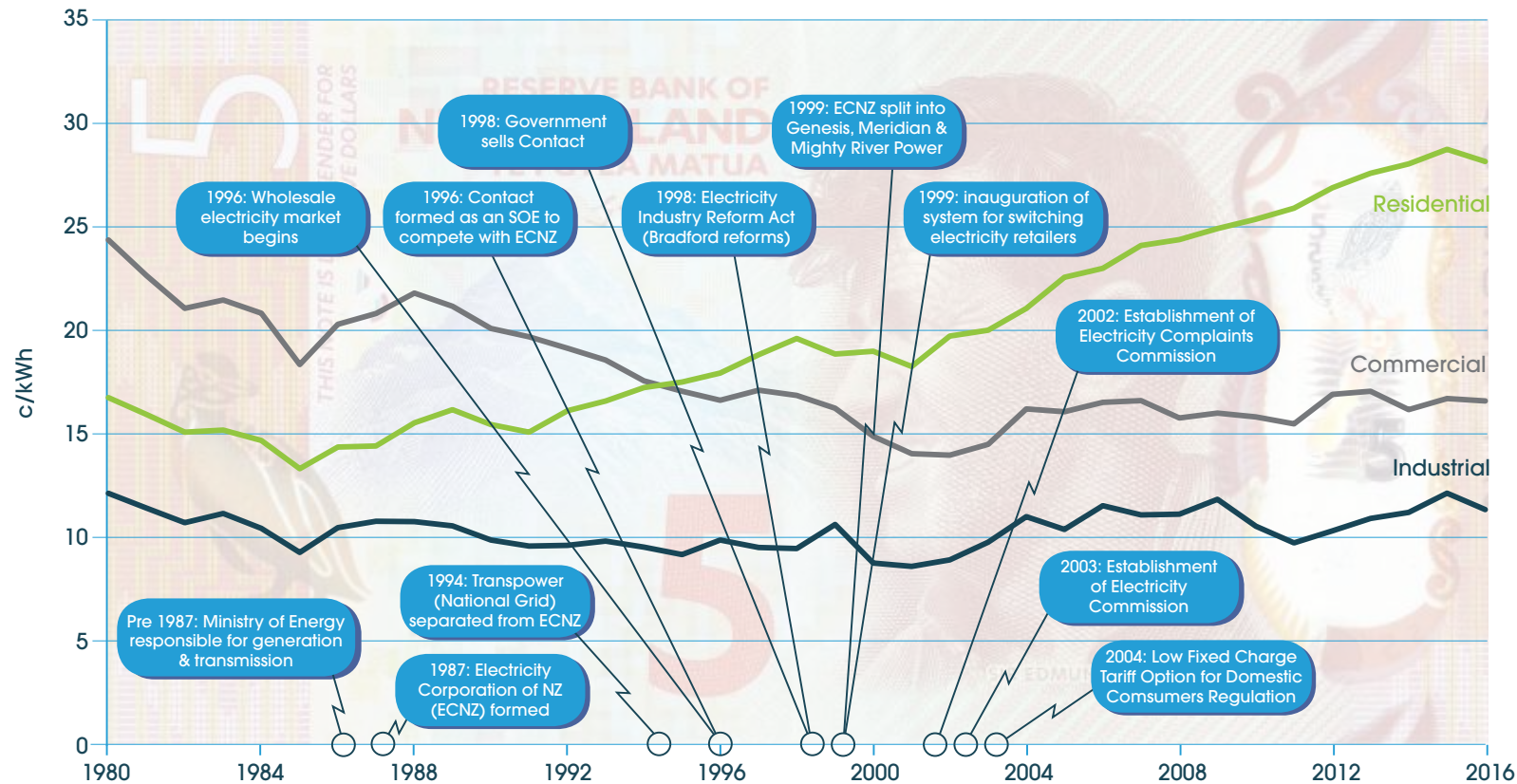
Electricity as a proportion of overall household expenditure



Despite our high use, and because of our reasonable costs, electricity is generally a low proportion (3-4%) of overall average household spend. This has remained relatively constant for the last 20 years. The proportion of the weekly spend electricity comprises is now at its lowest average proportion of New Zealanders' household budgets since 2000/01 according to the Statistics NZ's Household Expenditure Survey (HES) for 2015/16. This indicates that although electricity prices have increased overtime, so too has everything else.

Which leads us to electricity price increases....

Cost per unit of electricity in New Zealand 1980-2016



Figures shown are real

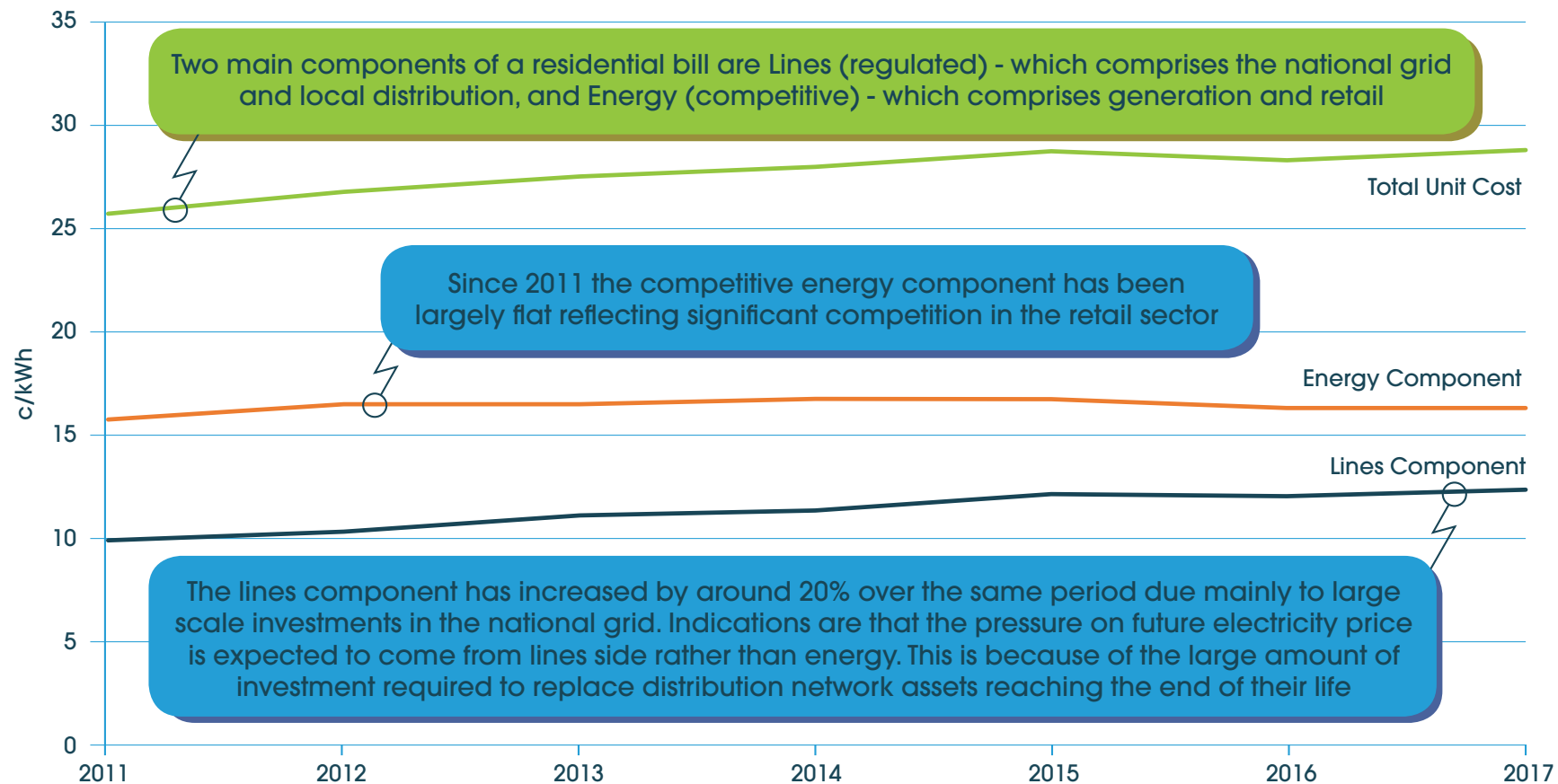
Data Source: Ministry of Business, Innovation and Employment (2016)

**Deregulation
unwound the
cross-subsidies in
electricity
pricing**

The electricity reforms of the late 1980s that resulted in deregulation of the electricity sector undoubtedly boosted residential prices markedly. However, much of this was the unwinding of the cross-subsidies that existed at that time across categories of electricity users. The residential price has increased but commercial prices have come down relatively proportionally.

More recently though, the residential price has flattened off, with the energy/retail component slightly reducing, and increases coming from the lines side (mainly due to major national grid investments)....

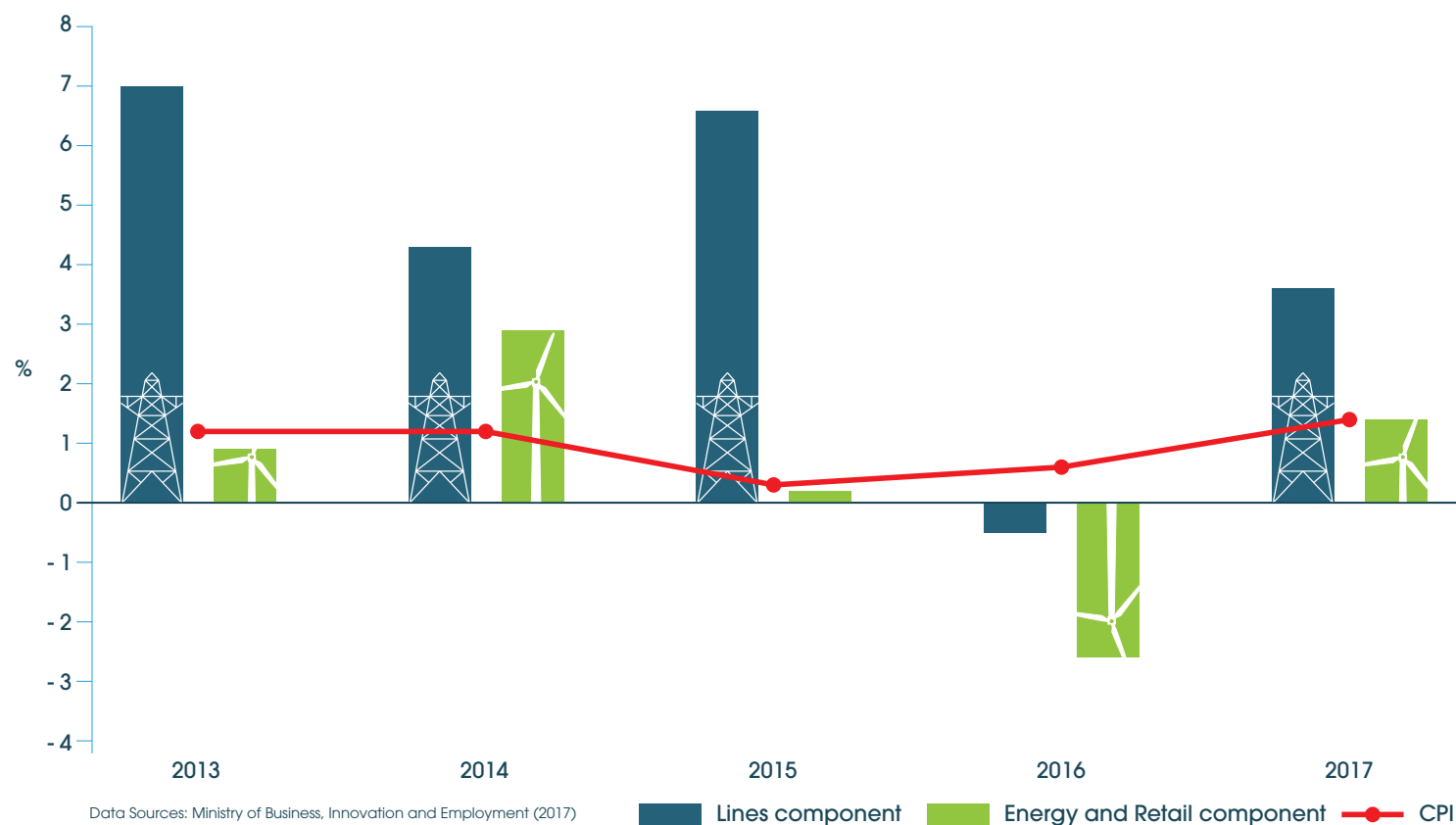
Breakdown of residential electricity price components (2011 - 2017)



Figures shown are real

Data Source: Ministry of Business, Innovation and Employment (2017)

Annual change in electricity price components compared to CPI



The energy and retail component of the price of electricity has been lower than CPI for four of the last five years

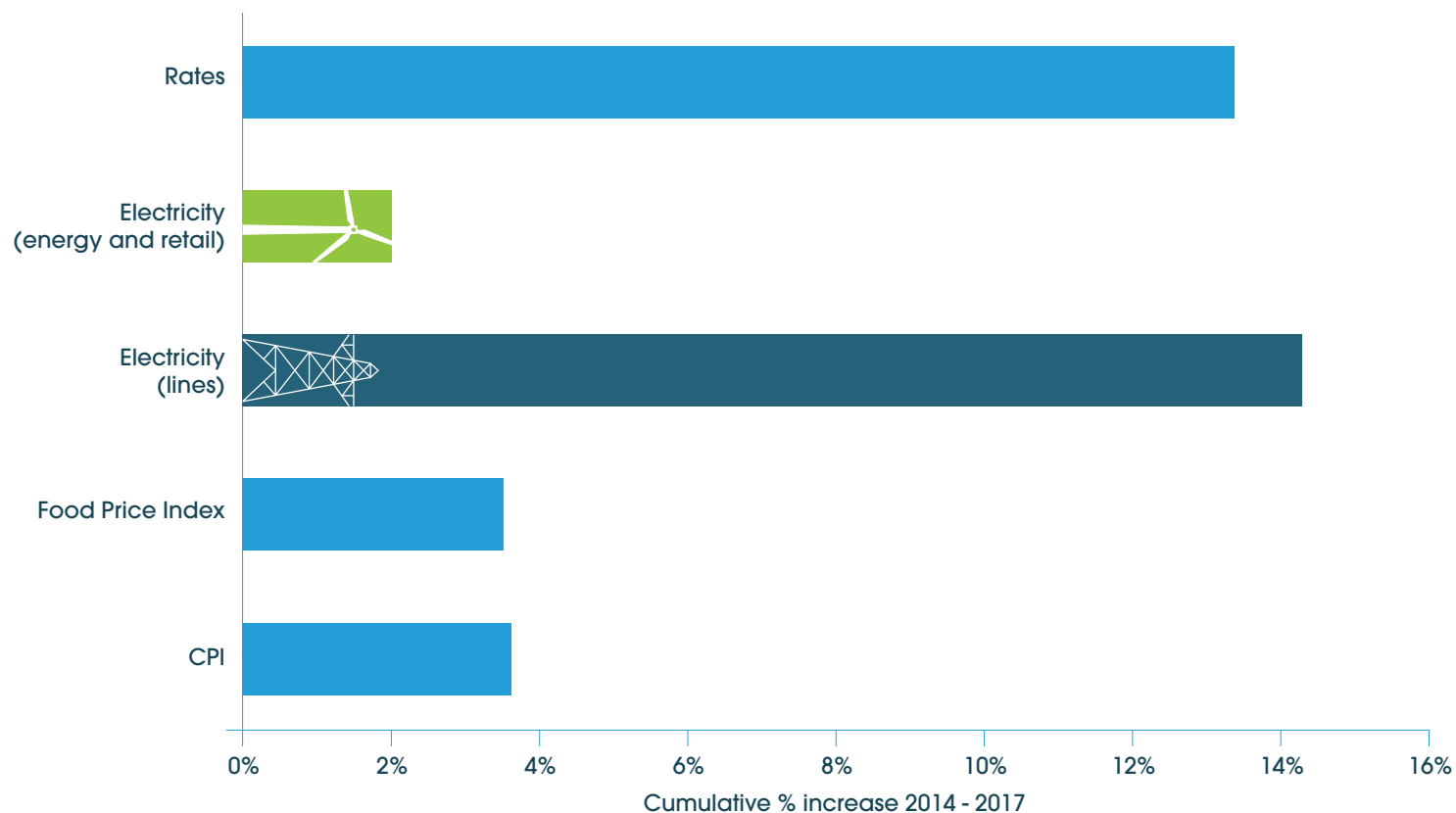
Electricity has been increasing by more than CPI in the last 5 years. Analysis based on evidence from MBIE shows that the competitive retail and energy parts of the sector have been largely keeping track with inflation. Costs from the regulated parts of the sector in distribution and transmission, with revenue set by government, have been higher. This is due to the cost of capital improvements of the networks, the nature and amount of which is subject to regulatory scrutiny.

Price rises in electricity should not be looked at in isolation from other consumer items. The cost of electricity has increased, however, this is true for most items.

How do electricity price changes compare to those of other essential costs?

How recent increases in electricity prices compare against other essential costs

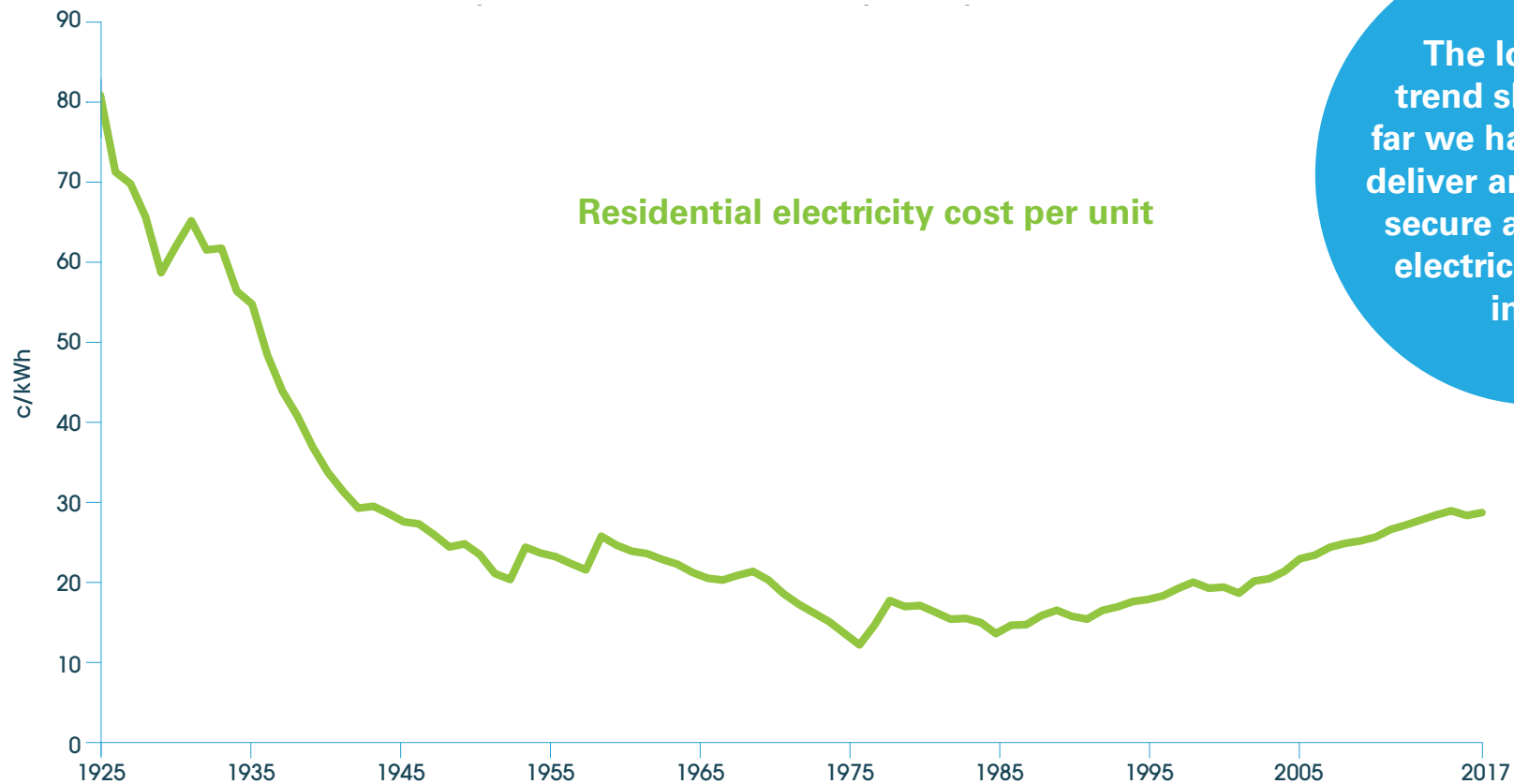
Compared to rates and food, electricity retail and energy costs have been lower



Data Sources: - CPI: New Zealand Reserve Bank - FPI: Statistics New Zealand - Rates: New Zealand Taxpayers Union
- Electricity: Ministry of Business, Innovation and Employment (2017)

A comparison of electricity cost increases when compared to other essential items such as food and rates, demonstrates the competitive market is serving customers well. Increases in cost from the competitive energy and retail components of the market have been lower than CPI and lower than food and rates increases. Costs from the regulated distribution sector have been similar to rates increases.

Long term trend in electricity pricing



The long term trend shows how far we have come to deliver an affordable, secure and reliable electricity system in NZ.

Prices are shown in Real (2017) terms.

Data Sources: Pre 1980: Table 3 from appendices of 'People, politics and power stations - Electric Power Generation in New Zealand 1880 - 1990', edited by John E. Martin, Historical Branch of the Department of Internal Affairs, published in 1991 by Bridget Williams Books Limited and the Electricity Corporation of New Zealand.

1980-2017: Ministry of Business, Innovation and Employment (March 2017).