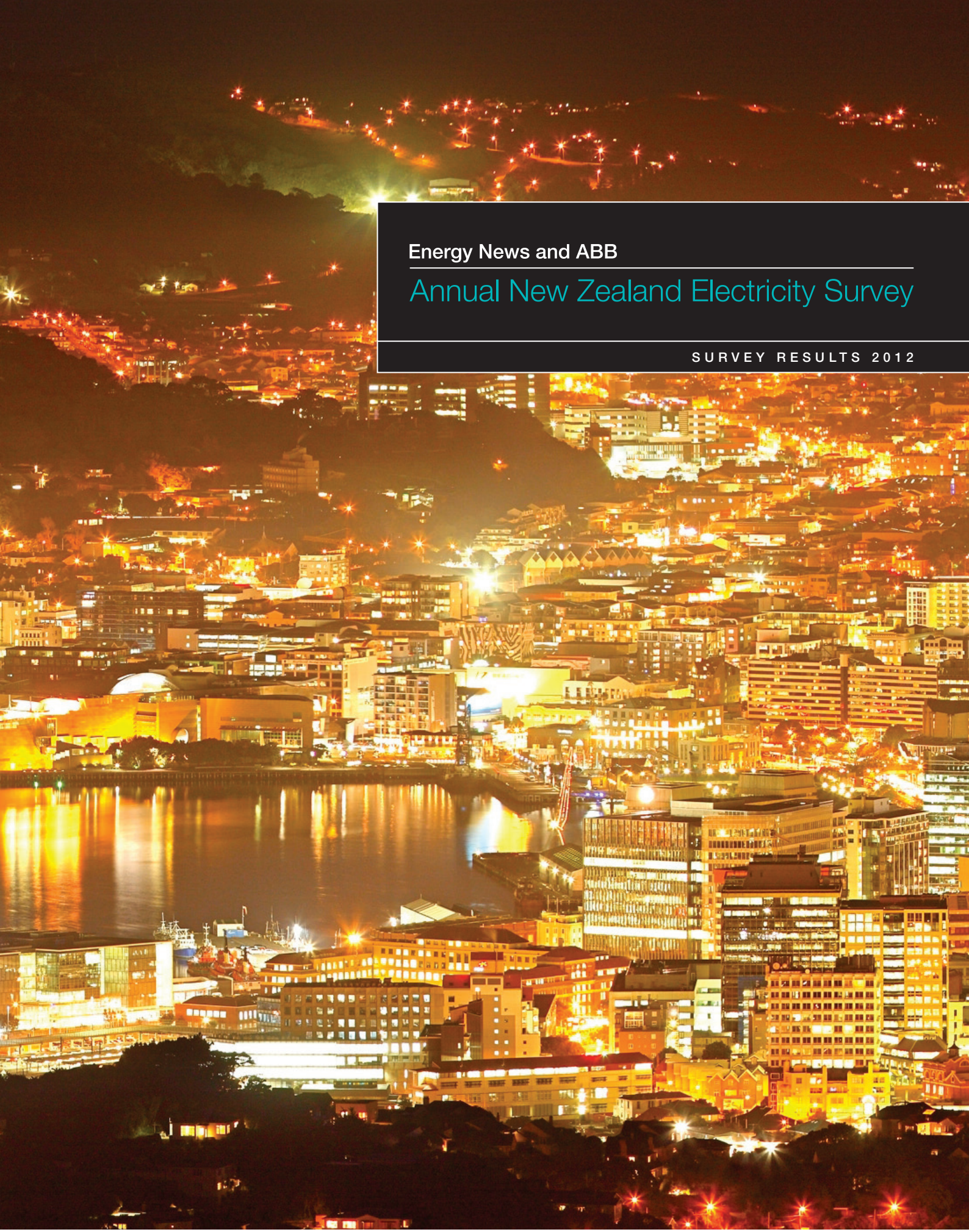

Energy News and ABB

Annual New Zealand Electricity Survey

SURVEY RESULTS 2012

ENERGY NEWS
www.energynews.co.nz

Power and productivity
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Introduction

In today's information society, a prompt and accurate flow of information is critical for decision-making at all levels. Expert opinions, research and accepted methodologies are well tested and complemented by surveys. Increasingly the digital age is making tools like surveys a vital part of any decision-making process.

Energy News and ABB are delighted to release the results of the Annual New Zealand Electricity Survey.

The survey was completed throughout May 2012 by 407 participants – predominantly professionals working in the energy sector. Participants were polled on issues ranging from renewable energy incentives to the Brownlee reforms. A breakdown of the sample by organisation type may be found on page 12.

Participants in the Annual New Zealand Electricity Survey had the option of being anonymous, but interestingly, nearly half the participants were prepared to put their name forward and nearly everyone rated completing the survey a worthwhile exercise.

The survey questions and range of responses were designed by an advisory panel that was chaired by John Hancock from HP. Panel members are listed on page 13 of this document and we thank them for their involvement.

This document contains some fascinating reading and we look forward to conducting the survey again in 2013.

Please email any feedback to matt.freeman@freemanmedia.co.nz.

We welcome suggestions of questions and response choices for discussion by the advisory panel in 2013.

Matt Freeman
Publisher – Energy News

About ABB

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 145,000 people.

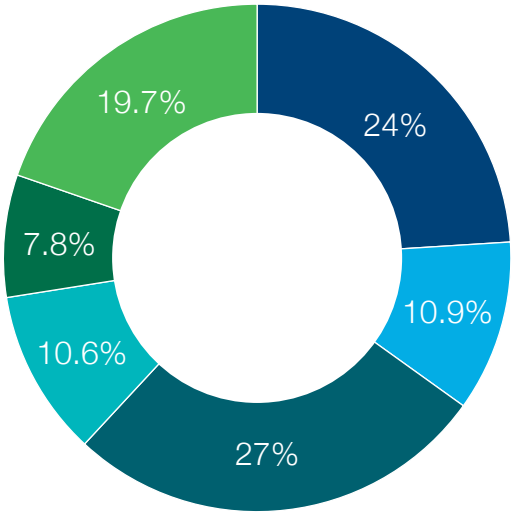
About Energy News

Energy News is New Zealand's online news and information service for the energy sector. The website (www.energynews.co.nz) was launched in 2008 and now boasts over 5000 readers every month from 240+ subscribing organisations. Its readership consists of New Zealand energy sector organisations and services companies spanning the electricity, oil and gas, petroleum and alternative energy value chain.

The subscription-based site provides executive interviews, news, opinions and commentary on a daily basis. It also hosts a suite of information resources including two large databases of the sector participants and energy resources. Other information tools include 30-minute electricity supply and demand monitoring, petroleum permit deadline summary, and an oil price monitor.

Question 1

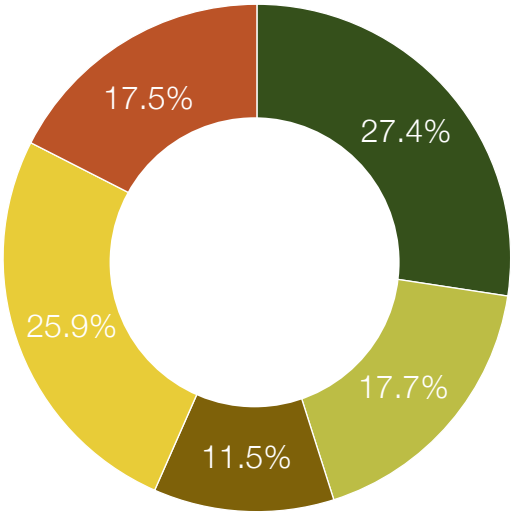
With the impending retirement of the Huntly coal-fired units (1000 MW) this raises some questions around generation fuel mix. What should replace it? Taking an NZ Inc view and thinking about transmission capacity, dry-year risk, fuel diversity, smart grids and fuel availability, what do you think Huntly should be replaced with as it's phased out?



- One new mainframe gas-fired generator (assume gas availability) – 24%
- Lots of small sub-25 MW generation – 10.9%
- Eight mid-sized, geographically positioned gas-fired peakers (assume gas availability) – 27%
- Demand response and energy efficiency – 10.6%
- Solar PV and battery storage at a residential level – 7.8%
- Scale renewables – 19.7%

Question 2

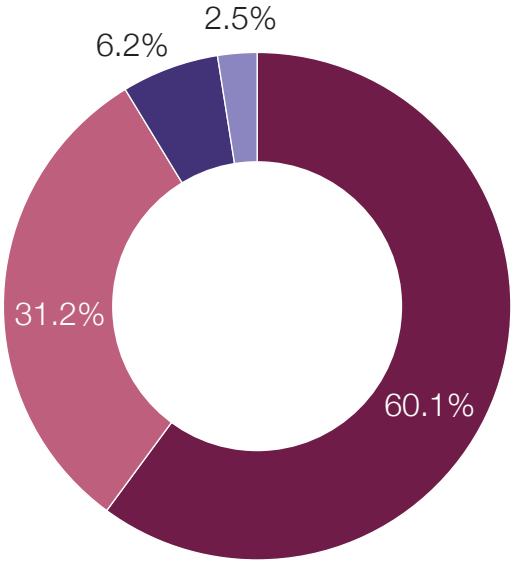
Do you agree with the government's target of 90 percent of electricity generation coming from renewable sources by 2025?



- Yes – 27.4%
- Yes but from an emissions reduction point of view we should be focusing on transport – 17.7%
- Yes but this will only work with a significant amount of residential solar PV – 11.5%
- No. We already have a high level of penetration of renewables by world standards and we should otherwise leave fuel mix to the market(s) – 25.9%
- No. Achievement of 90 percent would result in an unstable electricity supply – 17.5%

Question 3

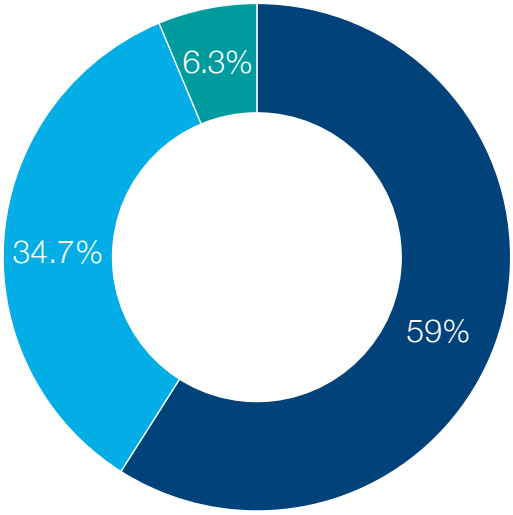
As a consumer, how much more would you be prepared to pay for green electricity?



- Nothing at all – 60.1%
- 10 percent more – 31.2%
- 20 percent more – 6.2%
- 30+ percent more – 2.5%

Question 4

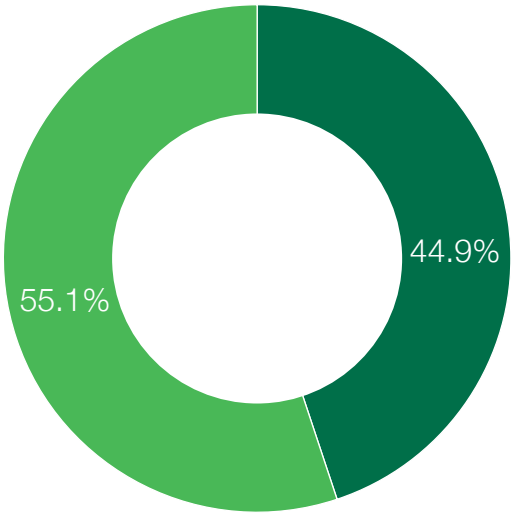
As we continue to build large scale renewables generation around the country, the transmission grid will continue to need building out, strengthening and smartening. What do you think about the costs associated with this?



- I am comfortable with the cost of the renewables-related grid upgrades being borne by the state and shared amongst all consumers – 59%
- More mechanisms should be in place to pass more of this cost on to the renewable generators – 34.7%
- New grid build should be paused beyond the current round of projects – 6.3%

Question 5

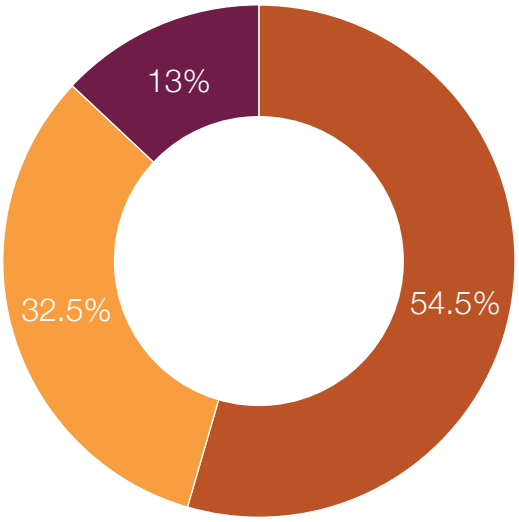
Overseas, governments have allowed the direct subsidy of new technologies like solar photovoltaics and solar hot water heating for residential customers. Government handouts for this sort of thing aren't really in the kiwi spirit, but are we missing a trick?



- Yes. The benefits of environmentally sustainable technologies aren't reflected in prices, so you can't rely on market signals alone to make sure we invest in these technologies early enough – 44.9%
- No. Subsidies lead to inefficient investment and we all wind up paying in the long run – 55.1%

Question 6

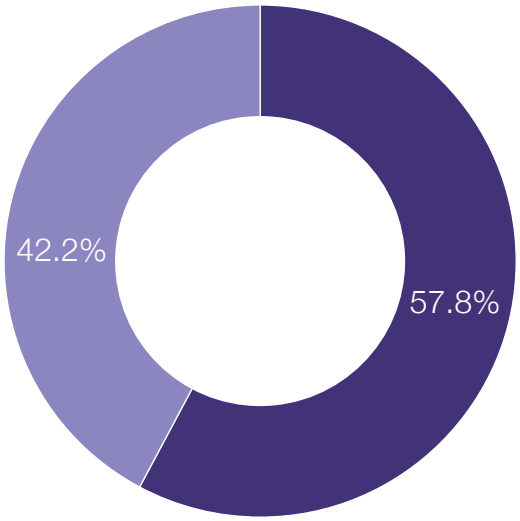
Since the Rogernomic reforms of the late 1980s, the New Zealand Government has seen its role to set policy but leave implementation up to the market. Industry regulation has been 'light-handed'. The local rollout of smart meters by electricity retailers is distinctive globally in that it is occurring without any regulatory mandate or cost recovery. Some interesting characteristics are emerging in the market. Who do you think should own the smart meter?



- Metering is part of the natural monopoly service that distribution businesses provide and should be mandated and price controlled for the benefit of all market participants and consumers. These meters and the data associated with them can then be available to any retailer on that network – 54.5%
- Leave this to the market and avoid locking in technologies – 32.5%
- Irrelevant – 13%

Question 7

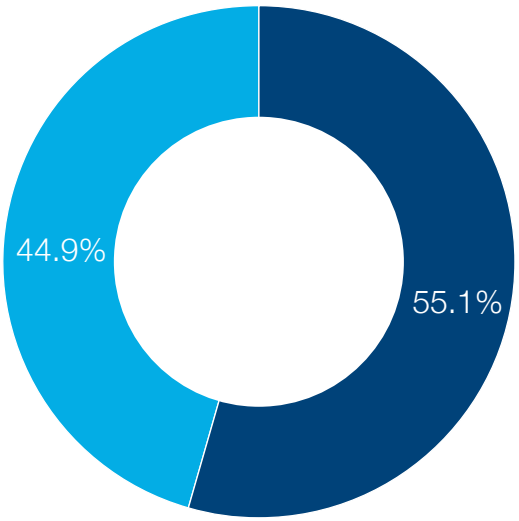
On the subject of regulation, what do you think about the Commerce Commission's somewhat unique regulation of lines companies where 12 of our lines businesses are exempt and the remainder subject to default price/ quality paths?



- It's a nonsense – best practice incentive regulation of natural monopoly pipes and wires is mature and effective overseas. This attempt to come up with something different is plain inefficient – it adds to uncertainty and invites litigation – 57.8%
- We're different – New Zealand is so small and has so many lines businesses of such diverse scale and ownership that an overseas regime would be overkill here – 42.2%

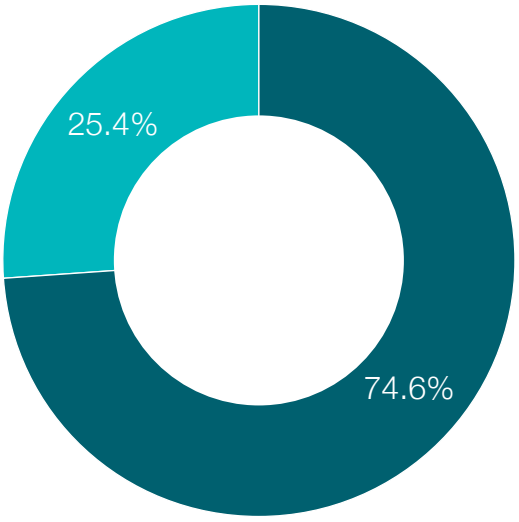
Question 8

Carbon pricing is a sensitivity in the economics of renewable generation. Since the government introduced legislation the carbon price in New Zealand has fallen from $25 to $7, just as it has elsewhere in the world and substantially weakening the price signal for reducing emissions and developing renewables. What do you think?



Is this a sign of market failure?

- Yes – 55.1%
- No – 44.9%

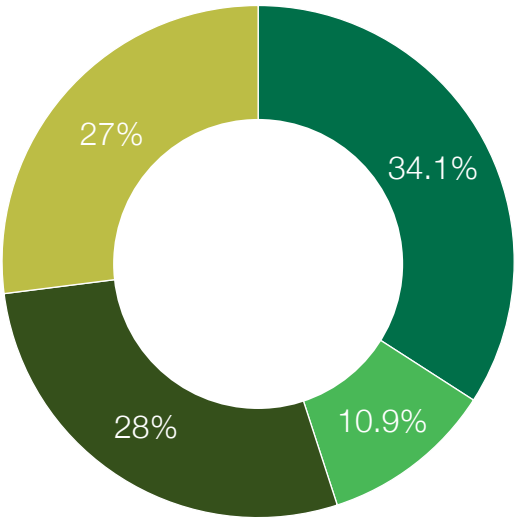


If we imposed a carbon tax would you support using the revenue from this scheme to fund emissions reductions projects?

- Yes – 74.6%
- No – 25.4%

Question 9

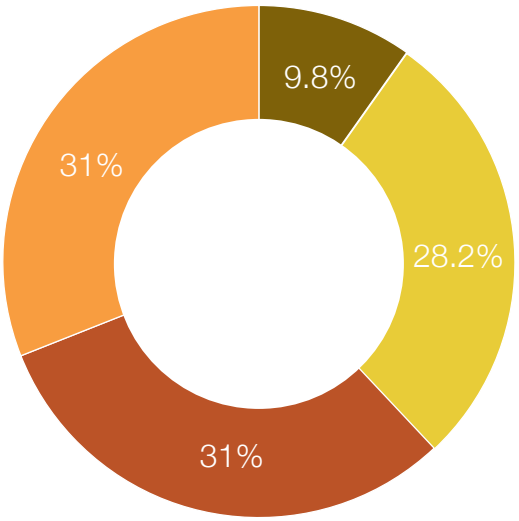
Following on from the previous question, what would you do with the present emissions trading scheme?



- Leave the system as it is and give it time – 34.1%
- Peg the price of carbon – 10.9%
- Scrap the scheme and replace it with a carbon tax – 28%
- Scrap the scheme completely – 27%

Question 10

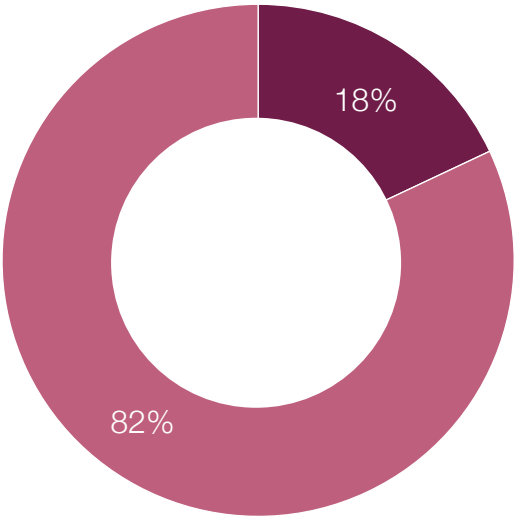
Most New Zealand consumer-facing organisations are using social media as an option for customer engagement. Would you as a consumer engage with your electricity retailer via social media?



- Yes, I already do – 9.8%
- Yes but they need to make it worthwhile to do so – 28.2%
- Don't know but the current way the industry engages is highly restrictive and it needs to adopt all media possible for different market segments – 31%
- No. It is just a fad and no-one will use these technologies for a product like electricity – 31%

Question 11

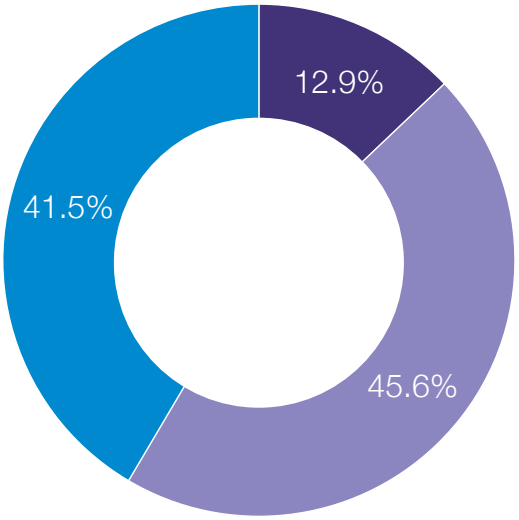
Do you engage with other consumer-facing organisations (phone companies, insurance companies, local and central government) via social media?



- Yes – 18%
- No – 82%

Question 12

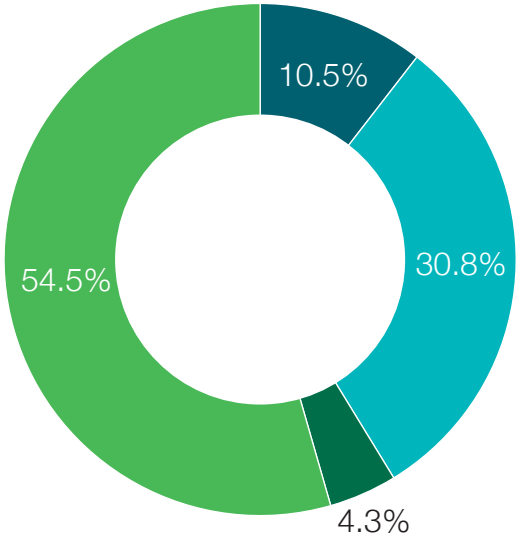
New Zealand energy professionals and engineers in general seem to be working all round the world and we have some trouble retaining them here. We also have trouble importing talent. While a number of companies are already exporting their energy expertise and competing well, should we be doing more to encourage IP export rather than human export?



- No. The market is working – 12.9%
- Yes, there is room for some action. Government and the industry should be further encouraging local energy businesses with talent pools to contract or sell their services offshore and tap into richer income streams – 45.6%
- Yes but leave it up to industry to work out – 41.5%

Question 13

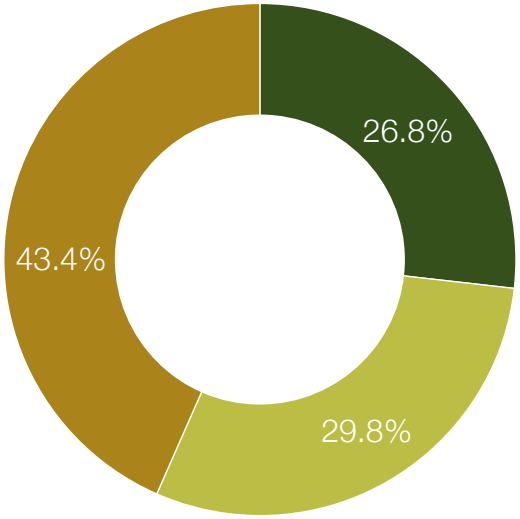
The average age of a transformer on Transpower's network is 31 years and the oldest is over 80 years. New Zealanders are great at maintaining old assets with a 'number 8 wire' mentality. This…



- is a triumph – 10.5%
- flies in the face of conventional asset management – 30.8%
- is making it difficult to attract young new engineers – 4.3%
- is a commercial reality we face due our scale – 54.5%

Question 14

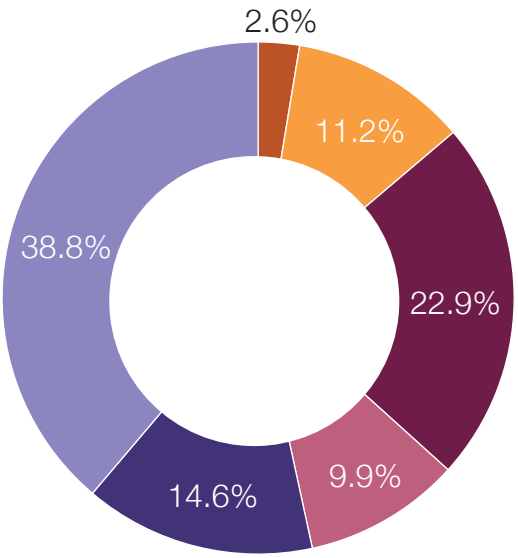
New Zealanders thrive on a legend of frugal innovation where world-beating best practice is born from the constraints of isolation – world class engineering made on a tight budget. Is the legend really true in the electricity industry?



- Yes – there are countless examples of home-grown solutions which are a fraction of the cost of international ones, but more effective – 26.8%
- No, it's a myth – we spend far too much time and money trying to invent world-beating solutions which never take off and where we could just be a "fast follower" of leading practice from overseas – 29.8%
- I'd like to believe it's true, but in my heart, I suspect I'm kidding myself – 43.4%

Question 15

Two years into the Brownlee Reforms and quite a lot has happened. Think back to some of the objectives of the reforms, one of which was to encourage new competition in the retail electricity space. Of course not a lot has happened here. Choose one of the options below that best summarises your thoughts on retail competition:

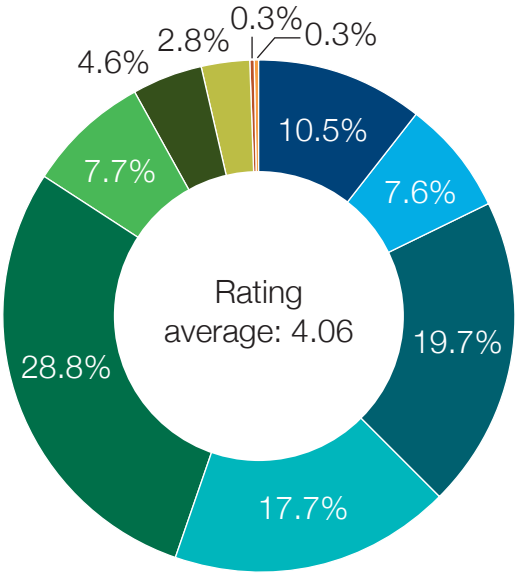


- Prudential requirements for new entrant retailers are too severe – 2.6%
- Hedge market is still not a tool for retailers without generation – 11.2%
- Too soon to tell – 22.9%
- The asset swaps and subsequent retail patch movements have created too much de-stabilisation for a new entrant – 9.9%
- Until there is parity between hedge market and generator-retailers' internal transfer prices this will undermine confidence in the hedge market – 14.6%
- Until there is true separation of generation and retail, no new entrant retailers will prosper – 38.8%

Question 16

The Brownlee Reforms

Rate the success of the Brownlee Reforms to date out of 10:

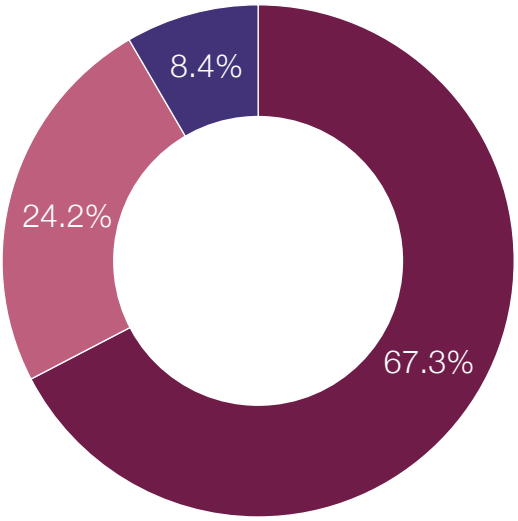


- 1 (Failure) – 10.5%
- 2 – 7.6%
- 3 – 19.7%
- 4 – 17.7%
- 5 (Mid-term pass) – 28.8%
- 6 – 7.7%
- 7 – 4.6%
- 8 – 2.8%
- 9 – 0.3%
- 10 (Complete success) – 0.3%

Rating average: 4.06

Question 17

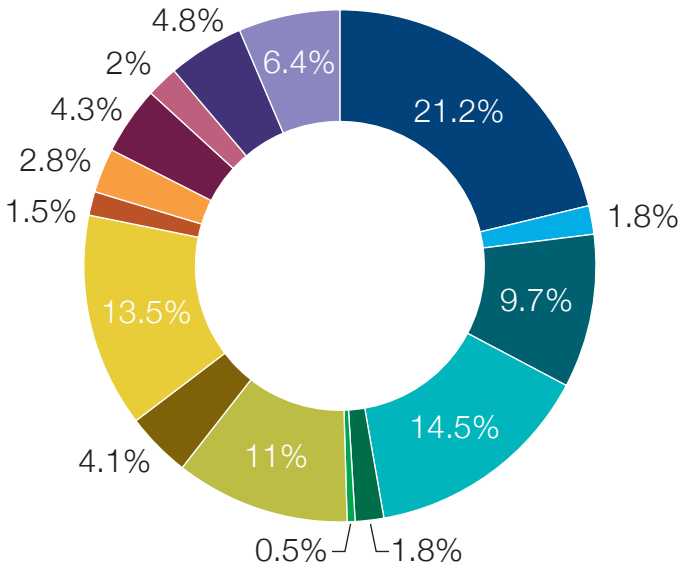
Wide-scale adoption of electric vehicles is possibly one of the most disruptive technology changes the industry will face in coming years – a car has a similar peak demand to a home. Uncoordinated vehicle charging could completely overload existing lines. How should we prepare for this?



- It's up to the market to work out how best to roll electric vehicles out – when it's economic, people will buy them and lines businesses will have to work out how to cope – 67.3%
- The impact on distribution network loadings will be too difficult to manage without regulation of connection terms and lines business control of vehicle charging – 24.2%
- It'll never happen, so we don't need to worry – 8.4%

Question 18

Please choose one option below to describe where you work or your connection to this survey.



- Gentailer – 21.2%
- Small retailer – 1.8%
- Transmission – 9.7%
- Distribution – 14.5%
- Other infrastructure – 1.8%
- Upstream oil and gas – 0.5%
- Transport fuels – 0%
- Professional services company – 11%
- Equipment supplier – 4.1%
- Consultant – 13.5%
- Lobby/association – 1.5%
- Regulator – 2.8%
- Government department/ agency – 4.3%
- Consumer – large – 2%
- Consumer – 4.8%
- Other – 6.4%

The survey panel

John Hancock
Director, Utilities
HP Asia Pacific

John Hancock is the Asia Pacific Director for the Utilities industry at HP, the world's largest technology company. Much of this role involves bringing HP's experience in world class utility operations from overseas to the Asia Pacific region.

John has over 20 years of experience in the commercialisation and liberalisation of utility companies around the world. He holds a Masters Degree in Theoretical Physics and Philosophy from Oxford University, and a Masters of Business Administration specialising in Strategy Implementation from the University of Bradford Management Centre.

Grant Gillard
Managing Director
ABB Limited,
New Zealand

Grant Gillard is the Managing Director of ABB Limited, New Zealand. In this role he has hands-on responsibility for ABB's New Zealand operations. ABB employs over 700 staff in New Zealand at twelve locations.

Grant holds a Master of Engineering degree from the University of Auckland, and has had professional engineering and management experience in a number of diverse technologies and industries.

Matt Freeman
Publisher
Energy News

Matt Freeman is the Founding Editor of Energy News and Managing Director of Freeman Media, which runs a range of events in the energy sector including Downstream, The New Zealand Petroleum Club, New Zealand Petroleum Summit and the Deloitte Energy Excellence Awards.

His career has included sales, marketing and management roles at Telecom, Flight Centre, Gulliver's Pacific and operating his own travel agency business in Australia.

Murray Dyer
Director
Simply Energy

Murray Dyer is a Founding Commercial Director of Simply Energy Limited, a specialist generation and retail supply business, which provides solutions to independent generators and commercial clients. Simply Energy has spent the last two years in the Deloitte Fast50 as one of the fastest growing companies in New Zealand.

Since graduating from Lincoln University with a Finance and Economics Degree, Murray has spent 18 years working in energy, commodity and financial markets in Australasia, Asia and London.

John Small
Economist
Covec Consultants

John Small is a Director of Covec Consultants, one of New Zealand's leading consulting firms in the areas of economics, research, forecasting and public policy.

John holds a PhD in Economics, and has worked in all major network industries, in banking and finance, agriculture, food processing, and on regional economic development, applying the tools and techniques of economics to issues at the boundary between public policy and private business.

Bruce Stubbing
Director
Smart Power

Bruce Stubbing is a Director of Smart Power, an energy management company that provides a range of services, from hands-on management through to consultancy services, energy audits, tendering and negotiating energy supply contracts and utility bill verification.

Bruce specialises in customer networks, embedded networks, transmission, network supply negotiations and power quality issues. He is experienced in all aspects of line company operations having spent over 25 years in various engineering and management positions within the former Auckland Electric Power Board and Mercury Energy.

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Certainly.

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