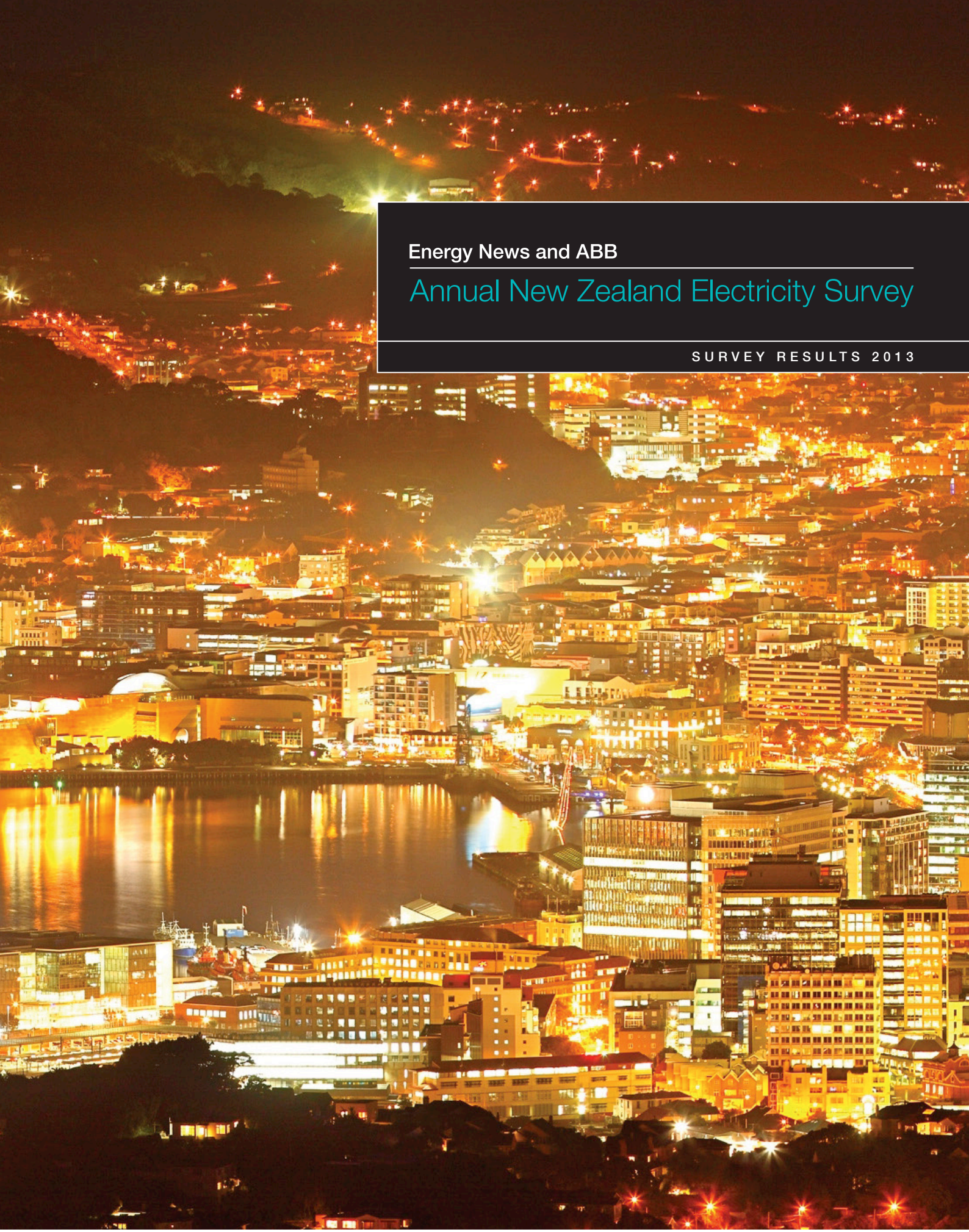


Energy News and ABB

Annual New Zealand Electricity Survey

SURVEY RESULTS 2013

ENERGY NEWS
www.energynews.co.nz

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. The digital age is increasingly making tools like surveys a vital part of any decision-making process.

Energy News and ABB are pleased to announce the results of the Annual New Zealand Electricity Survey 2013. This document contains some fascinating reading and insight into the current issues facing the industry, and what should be done about them.

The survey, in its second year, ran for four weeks throughout March and April and was completed by around 330 industry participants. A breakdown of the sample by organisation type is available in Question 19. Almost all participants rated completing the survey a worthwhile exercise, and many provided valuable feedback for next year.

Eighteen thought-provoking questions tested respondents' views on electricity matters including retail pricing, metering, and dry-year risk management. The survey questions and range of responses were guided by an advisory panel chaired by John Hancock. The panel members are listed at the end of the document; we would like to thank them for the input.

Please email any feedback to margaret.mccrone@freemanmedia.co.nz. We welcome any and all suggestions for questions and responses for 2014.

Margaret McCrone - Research Analyst
Freeman Media (publisher of 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.

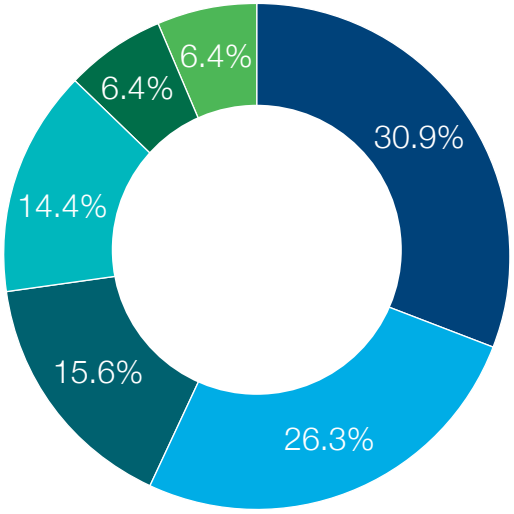
About Energy News

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 5,000 readers every month from 275+ 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 summaries and an oil price monitor.

Question 1

While certainly not an exhaustive list, which of the following do you think are the most significant issues facing the New Zealand electricity sector in 2013? Please rank your choices one through six, with one being the most significant:



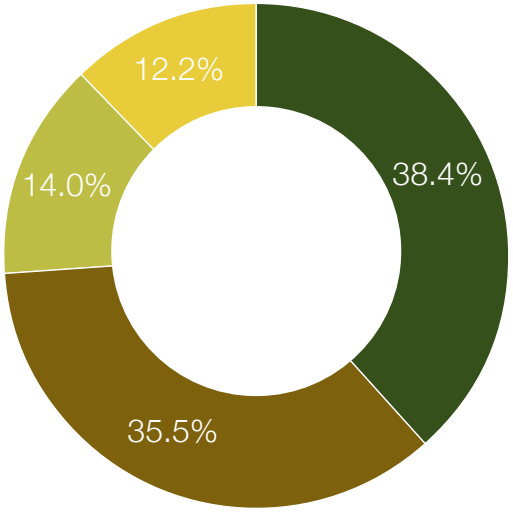
1. The flat demand outlook and the implications for retail competition and asset utilisation – 30.9%
2. Regulation (whether in the form of supposed over-regulation, not enough regulation in specific areas, or what you think to be incorrect regulation of specific areas) – 26.3%
3. The impact of the partial privatisation of one or more state-owned enterprises – 15.6%
4. Lack of competition – 14.4%

5 =. Improving stakeholder and public engagement – 6.4%

5 =. Increasing energy poverty and the resulting risk of political intervention – 6.4%

Question 2

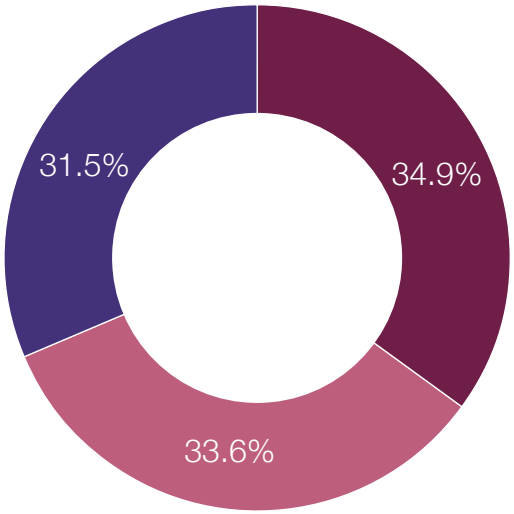
Which of the following do you think are the best new opportunities for New Zealand electricity companies in the near term? Again keep in mind this is not an exhaustive list and rank your choices one through four, with one being the best opportunity:



1. Exploring and adopting new technologies – 38.4%
2. Driving energy efficiency in the industrial, commercial and residential sectors – 35.5%
3. Product and market diversification – 14.0%
4. Expansion into international markets (in terms of export of intellectual property or New Zealand-made products, or the investment in offshore electricity initiatives) – 12.2%

Question 3

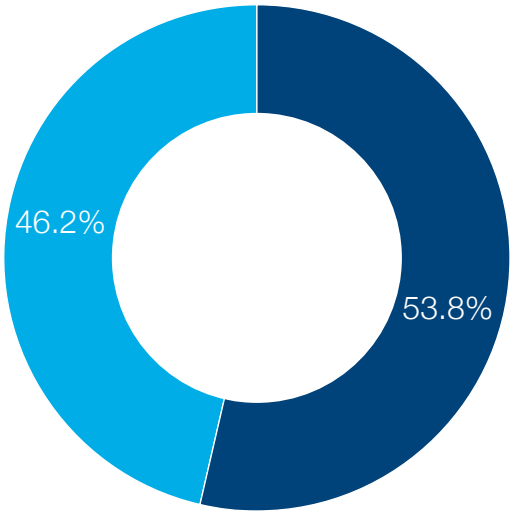
Electricity affordability is being increasingly highlighted as an issue in the media. Many lower and middle income New Zealanders are struggling to pay their power bills. Which of the following best describes what you think should be done about this? Choose one statement:



- There is scope for the Government to regulate the industry to protect consumers from price hikes – 34.9%
- The industry could do more and take a more active role in guiding and supporting customers to pay and/or reduce their bills – 33.6%
- This is not an industry problem but rather a wider societal problem around the costs of living. The Government needs to respond via social welfare – 31.5%

Question 4

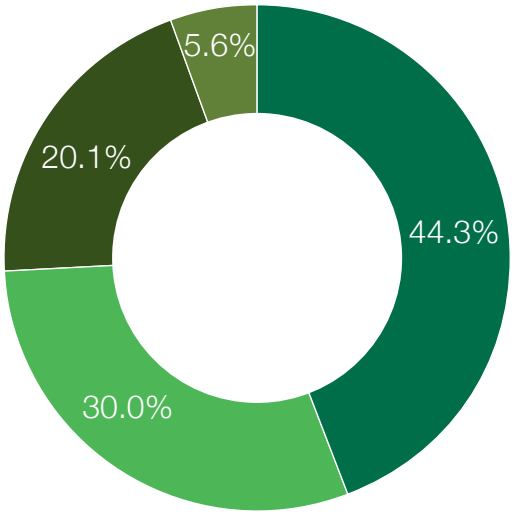
The Electricity Authority wants to increase the propensity of consumers to shop around for their electricity supplies. It also wants to ensure that the prices they face are constrained by competition and reflect the real costs of that supply. But is that going to be enough to maintain consumer confidence in 'the market'?



- Yes, but the Electricity Authority and the industry will have to ensure the market is actually competitive and be able demonstrate this – 53.8%
- No. Irrespective of competition, electricity costs have now breached the pain barrier for many households. Prices must reduce or remain stable in nominal terms to avoid a bigger backlash – 46.2%

Question 5

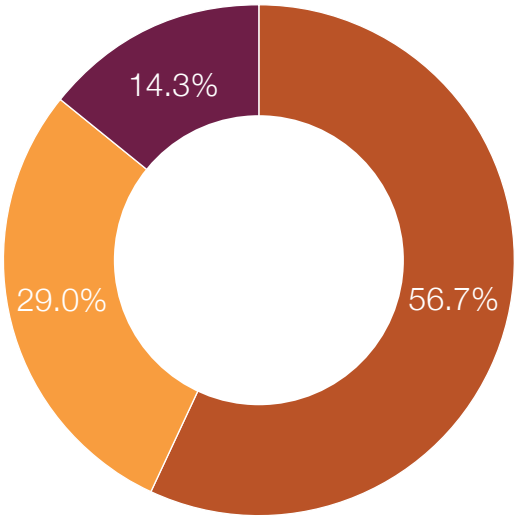
Further on the subject of competition, following a series of one-off campaigns and structural measures such as 'What's My Number' and the asset swaps, which of the following best describes your thoughts around competition in the retail electricity market? Choose one statement:



- Baseline competition and consumer awareness have improved – 44.3%
- Improvements in competition and retail pricing were short-lived and campaign-based and we are back to the status quo – 30.0%
- There have not been any improvements in competition – 20.1%
- Baseline competition and consumer awareness have improved but only in some lesser populated geographic regions – 5.6%

Question 6

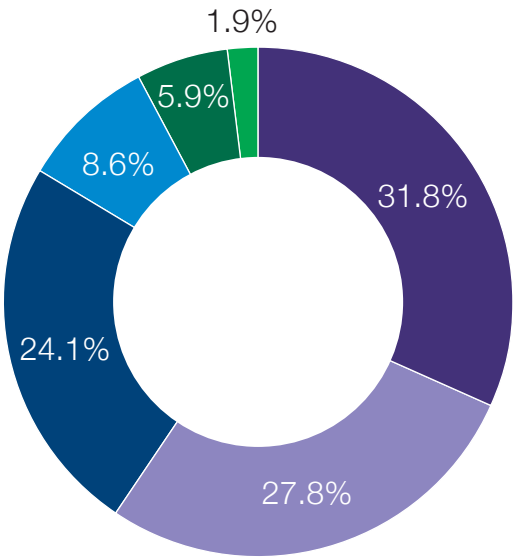
Addressing the Electricity Authority's 'What's My Number' campaign - which sought to stimulate retail competition and improve customer engagement – which of the following statements best fits your view? Choose one statement:



- The savings identified for many users weren't large enough to overcome scepticism that they would soon be overtaken by future price rises – 56.7%
- It disciplined retailers to the ultimate benefit of consumers, and led to increased innovation and efficiency from providers – 29.0%
- The initiative delivered no real benefit and increased costs on participants – 14.3%

Question 7

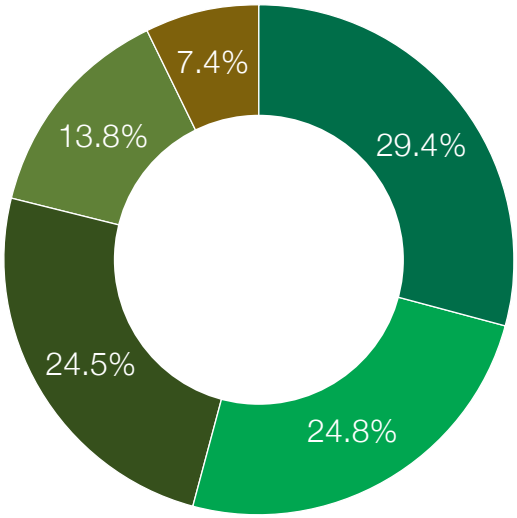
Of the following, which do you think are the biggest pressures underpinning rising retail electricity costs? Rank your choices one through six, with one being the biggest, according to what best describes your thoughts:



1. Increased transmission costs – 31.8%
2. Increased retail margins – 27.8%
3. Rising generation costs – 24.1%
4. Increased distribution costs – 8.6%
5. Declining household demand – 5.9%
6. Higher marketing costs due to increased switching – 1.9%

Question 8

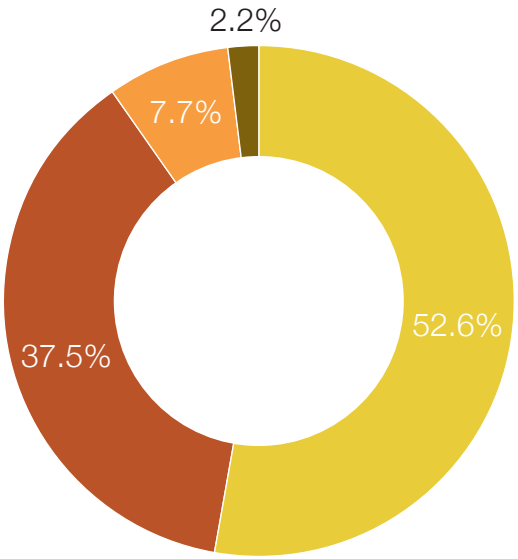
Some smart technologies promise to deliver benefits to customers who are engaged and wish to manage their energy use and costs. What do you think is the biggest issue standing in the way of consumer uptake of smart technologies such as smart appliances, electric vehicles, and home energy management systems? Choose one statement that best describes your view:



- Price - it's too expensive, particularly for those who are already struggling to pay their bills – 29.4%
- A general lack of interest - few consumers are sufficiently engaged – 24.8%
- Network tariffs are generally not cost-reflective, meaning consumers have yet to see price signals that would make investment worthwhile – 24.5%
- Lack of scale - without central government incentives, take-up will be too slow and dispersed to deliver any volume benefits – 13.8%
- Reluctance of the industry to agree on standards – 7.4%

Question 9

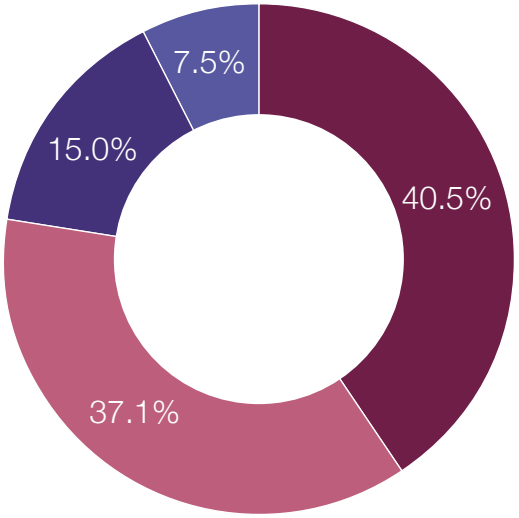
Advanced or 'smart' meters have now been deployed to almost half of the country's households. The half-hourly consumption data can be used by retailers to offer innovative new products and by lines companies for network management. Two-way communication also has the potential to allow consumers to respond to high electricity prices and subsequently flatten peak system demand. How well do you think the market-based roll-out of smart meters is delivering to consumers? Choose one statement that best describes your view:



- Just okay. Online billing and automated meter reads are good but the real benefits have been slower than expected – 52.6%
- It's a shambles. Customers have paid for the deployment through higher bills. Retailers and lines companies don't look like they'll ever be able to deliver the suite of benefits – 37.5%
- Pretty good. Consumers are benefiting from lower cost-to-serve and more initiatives are just around the corner – 7.7%
- Very well. Consumers with the meters are starting to see some real innovation and engagement from both retailers and lines companies – 2.2%

Question 10

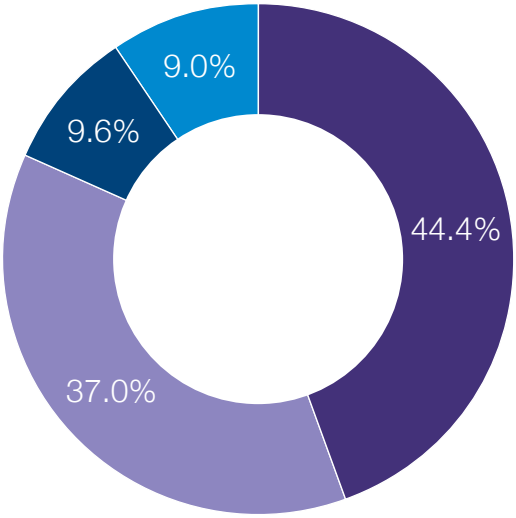
The flat demand outlook has seen most large-scale generation plans put on hold. Genesis Energy has removed one Huntly coal unit from the market and has scheduled another for storage late 2014. Contact Energy has also signalled its combined cycle plants at Stratford and Otahuhu could be closed or converted to open cycle operation. What is needed to ensure an orderly retirement of thermal capacity while also maintaining dry-year security? Choose one statement that best describes your thoughts:



- We need a capacity market to ensure we don't fall short when conditions change – 40.5%
- Nothing. The market works and only surplus plant will be retired – 37.1%
- The market-maker requirements for the ASX should be extended to include winter products out 10 years in order to help support the contracting of 'reserve' plant – 15.0%
- The government should retain an option to match any sale agreement that would see thermal plant dismantled and sold overseas – 7.5%

Question 11

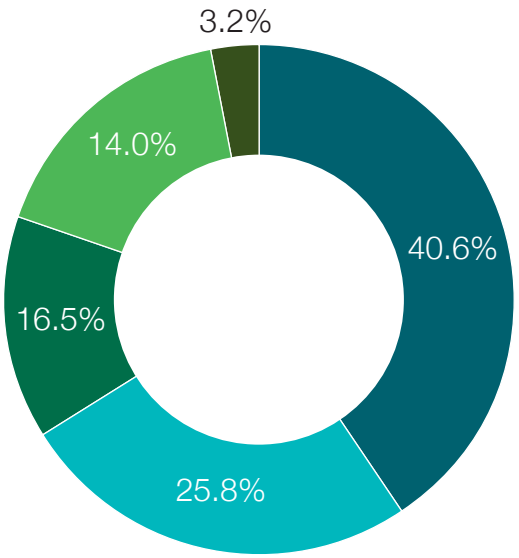
Two decades ago, many believed the electricity industry would move away from large-scale centralised generation toward more smaller, distributed generation. Is that happening now, and what does that mean for future generation and transmission investment? Choose one statement that best fits your opinion:



- Yes, but the contribution from distributed generation will be limited and there will always be a need for a core grid – 44.4%
- No. The type and scale of generation investment will vary over time depending on the economics of construction and fuel supply for the different technologies – 37.0%
- Yes, and home-scale wind and solar technology may accelerate the trend – 9.6%
- No. The recent change reflects the rising cost of gas-fired generation during the late 2000s and the smaller scale of many renewable options developed instead – 9.0%

Question 12

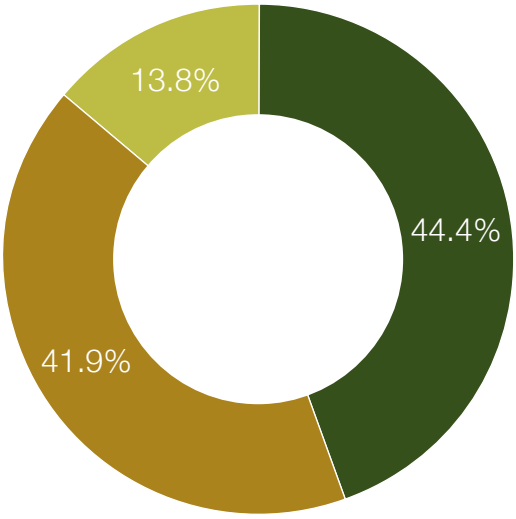
Commentators have commended the industry for its handling of the 2012 dry winter. Of the following options, what were the biggest drivers of that performance? Rank your choices one through five, with one being the biggest, according to what best fits your opinion:



- 1. Ample thermal capacity – 40.6%
- 2. Improved hedging options – 25.8%
- 3. The risk of customer compensation pay-outs – 16.5%
- 4. Low global aluminium prices – 14.0%
- 5. Stress testing disclosures – 3.2%

Question 13

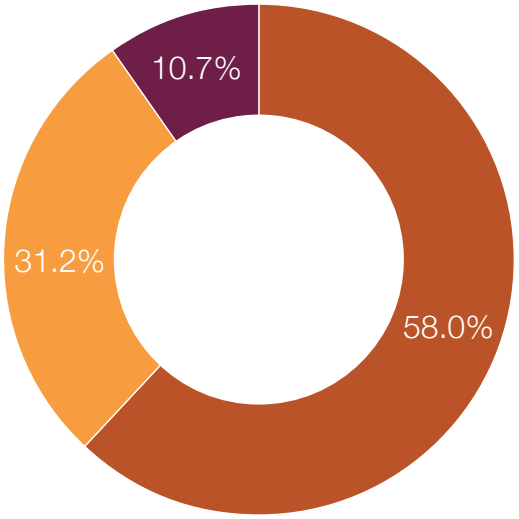
The decision and approval to build the North Island Grid Upgrade, the Whakamaru to South Auckland line, as 400 kV-capable was controversial at the time. Some take the view that weak current and forecast demand has shown the decision to be a mistake. Do you agree? Choose one statement that best describes your thoughts:



- No. The Electricity Commission's decision to approve the development but delay the expansion to full 400 kV capacity achieved a pragmatic balance between supply security and the inherent uncertainties in demand forecasting – 44.4%
- No, it is more important that this capacity is available ahead of time, even if we don't need it now. We may need it suddenly if Otahuhu B were to be mothballed or demand from the Rio Tinto aluminium smelter were to be significantly reduced – 41.9%
- Yes. The Electricity Commission's decision to approve the upgrade removed any pressure on the industry to develop widespread load-control initiatives and peaking generation capability in Auckland. 'Smart' products now being offered could have been installed much earlier and the upgrade deferred for several years – 13.8%

Question 14

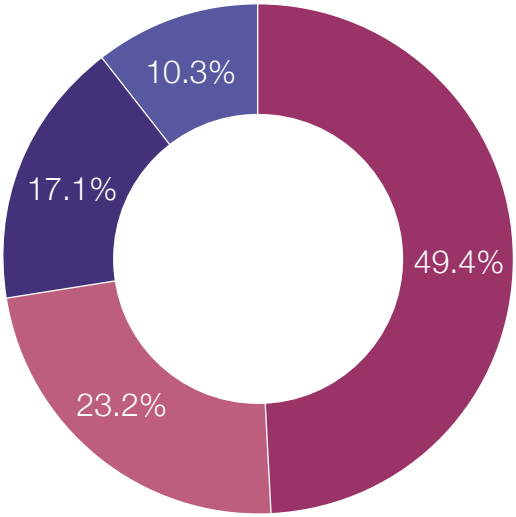
Section 54Q of the Commerce Act requires the Commerce Commission to promote incentives, and avoid imposing disincentives, for lines companies to invest in energy efficiency and demand side management. How can regulations achieve this? Of the following statements, choose one that best fits your view:



- Regulation has to ensure that lines companies can achieve returns from energy efficiency and demand-side management that are at least as high as those from investment in network capacity – 58.0%
- The commission should be prepared to penalise lines companies that aren't moving fast enough to offer demand-side management tools – 31.2%
- Increased information disclosure requirements should be sufficient to realise the benefits of 54Q – 10.7%

Question 15

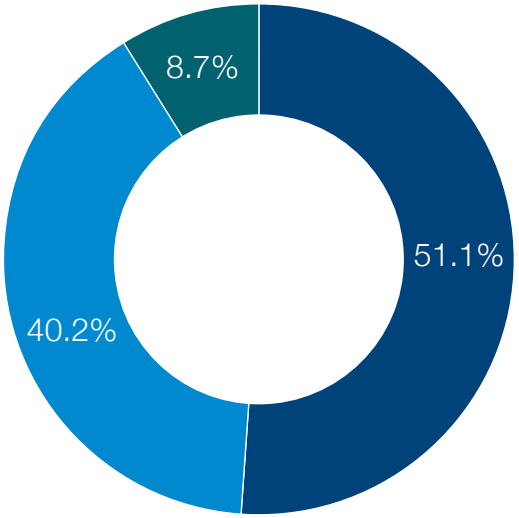
Retailers, distributors, load aggregators and Transpower all have an interest in accessing load for demand response. Consumers stand to benefit, either through reduced or deferred lines and transmission charges or through more dynamic retail offerings. But does the regulatory framework ensure the right agencies will control the load at the right times? Choose one statement that best fits your view:



- No. It's one thing for regulation to require something, it's another matter for parties to come up with robust commercial arrangements to make that effective – 49.4%
- No. There are a lot of non-emergency network benefits from peak-lopping and load smoothing. Aren't the owners and operators of those assets going to have more incentive than retailers and aggregators to deliver that value to their customers? – 23.2%
- Yes. And if all those parties got busy they could share in a considerably expanded interruptible load market – 17.1%
- Yes. But lines companies are going to face higher costs competing for some loads, and that is only going to increase once dispatchable demand becomes an option for larger users – 10.3%

Question 16

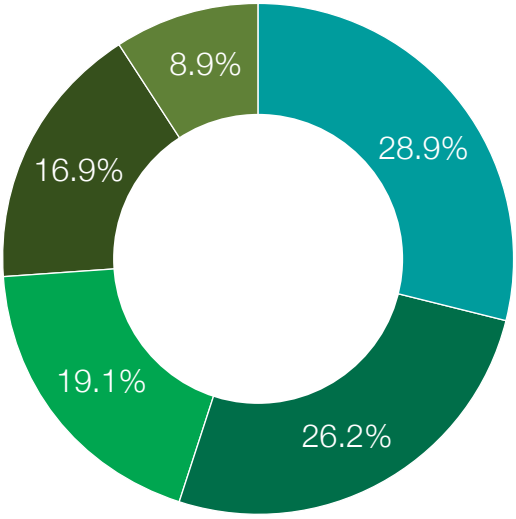
Water allocation is becoming an increasingly high profile issue in New Zealand politics. Generators have traditionally enjoyed privileged access to water. Choose one statement that best describes your thoughts from the following:



- Attitudes need to change. Water should be allocated to its highest-value use – 51.1%
- This should continue – 40.2%
- This should change – 8.7%

Question 17

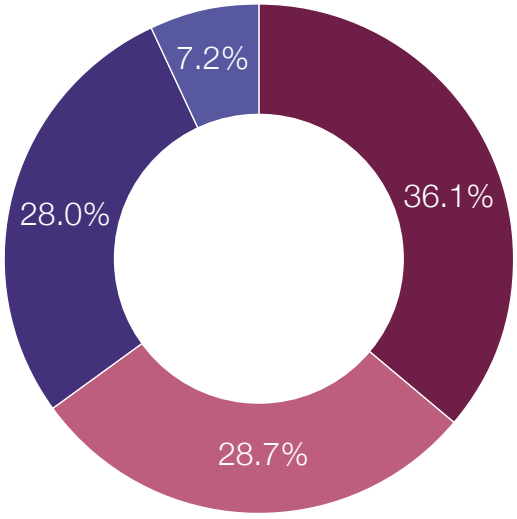
Climate change matters. What is the main thing the electricity industry should do to help contribute to emissions reduction? Choose one statement that best describes your thoughts from the following:



- Decarbonise what we do: continue to transition to low-carbon, renewable generation – 28.9%
- This is nothing to do with the industry. Central government should ensure the industry sees a price for carbon to enable appropriate investment decisions to be made – 26.2%
- Decarbonise what our customers do: help consumers use electricity more efficiently – 19.1%
- Decarbonise the vehicle fleet: provide the infrastructure and market conditions required to promote electric vehicles – 16.9%
- Man-made climate change is a myth – 8.9%

Question 18

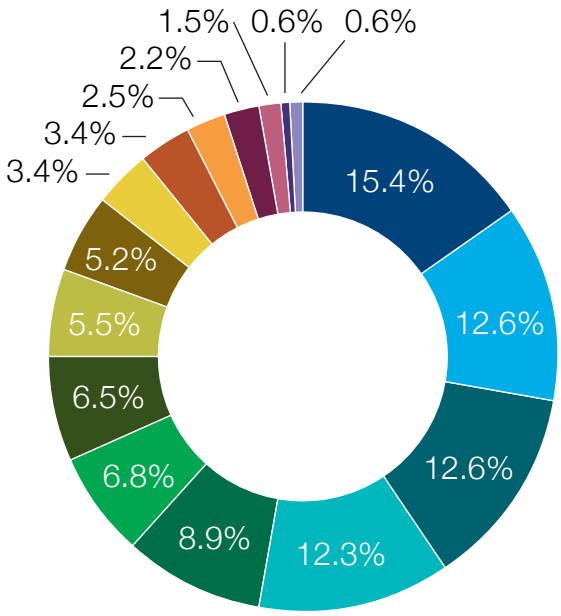
Most New Zealand consumer-facing organisations are using social media as an option for customer engagement. Would you as a consumer engage with your electricity retailer via social media? Choose one statement:



- 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 – 36.1%
- Yes, but they need to make it worthwhile to do so – 28.7%
- No, it is just a fad and no-one will use these technologies for a product like electricity – 28.0%
- Yes, I already do – 7.2%

Question 19

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



- Consultant – 15.4%
- Professional services company – 12.6%
- Gentailer – 12.6%
- Distribution – 12.3%
- Consumer – 8.9%
- Other – 6.8%
- Equipment supplier – 6.5%
- Transmission – 5.5%
- Government department/ agency – 5.2%
- Regulator – 3.4%
- Consumer – large – 3.4%
- Upstream oil and gas – 2.5%
- Other infrastructure – 2.2%
- Lobby/association – 1.5%
- Transport fuels – 0.6%
- Small retailer – 0.6%

The survey panel

John Hancock
CHAIR

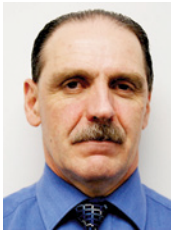
John Hancock consults to the utility industry and its suppliers with a focus on technology, market reform and incentive regulation. Immediately prior to this he was Director, Utilities for Hewlett Packard in the Asia Pacific.

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.

Fraser Clark

Fraser Clark is General Manager Operations Development at the Electricity Authority, where he has oversight of all of the systems, services and service providers that keep the market operating, and responsibility for the development of the technical elements of the market rulebook.

Previously Fraser was Chief Executive of the New Zealand Wind Energy Association. He also has industry experience in generation development, cogeneration plant operations, electricity and natural gas contracting, and energy efficiency projects for manufacturing plants.



Brian Fitzgerald

While now employed in the energy sector, Brian's background is in private sector transport and process engineering, with previous roles including 15 years in the New Zealand motor industry and 10 years in Europe working in the food, manufacturing and waste sectors; focusing on high end process control and monitoring systems.

Simon Coates

Simon Coates, a director at Concept Consulting, has over 20 years' experience in the energy sector. Prior to joining Concept, a specialist energy consultancy, Simon held a senior management position for a major New Zealand energy company, and worked in the UK as a consultant on energy and emissions markets in the UK and Europe.

Simon holds a BSc Hons (First Class) in Physics, and an MSc in Environmental Technology.

Grant Gillard

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 Ritchie

Matt Ritchie, a journalist at Freeman Media, first joined the company at the launch of Energy News in 2008. Recently Matt returned to write for Energy News following two years in the United Kingdom working as Deputy Editor for two trade titles serving pension funds and institutional investors in the UK and Europe.

Margaret McCrone

Margaret (Margie) is Freeman Media's Research Analyst and is responsible for the premium content on the Energy News website, as well as being involved in the development of new and existing Freeman Media products and services. Margie holds a Bachelors degree in Law, as well as in Arts, from Victoria University of Wellington.

Nicholas Robinson

Nicholas Robinson is General Manager, Customer Insight, Marketing and Communications at Contact Energy. Nick joined Contact in 2012 after spending 7 years at BP in the corporate headquarters leading their work on reputation, sustainability and non-financial issues management. Prior to BP he worked with the international consultancy SustainAbility, advising a wide range of clients on non-financial risk, transparency and stakeholder engagement.

David Thomas

David leads Vector's gas wholesale, gas processing, LPG and metering businesses. David has worked in nearly all parts of the energy sector over the last 27 years. Prior to joining Vector in 2008, he was general manager operations at Contact Energy, responsible for the company's power stations and generation development. He has also held roles at BP and Fletcher Challenge in New Zealand and overseas. David's tertiary qualifications include engineering, science and the Senior Executive Programme at the London Business School.

Managing complex power networks in real time?

Absolutely.

As electricity grids become more complex, they are also growing smarter. ABB's advanced energy management and communication solutions enable centralized real time monitoring and control of transmission and distribution networks, ensuring millions of users have a reliable power supply and helping utilities manage crucial functions like energy audits, outage management, billing, scheduling and power exchange. We offer a range of products, systems and services for power generation, transmission and distribution to help increase power capacity, enhance grid reliability, improve energy efficiency and lower environmental impact. With a 125 year heritage of technology innovation ABB continues to shape the grid of the future. For more information please visit us at **www.abb.com**

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