







Smarter Mobility

For transport of the future, today

In 2018 there were more than 3 million electric vehicles worldwide and the market is growing, with electric car stock set to range between 9–20 million and 50% of new buses in Europe to be electric from 2020 onwards. Electric vehicles require power, and ABB offers a total solution, from reliable DC fast charging stations for cars to innovative on-demand electric bus charging systems.

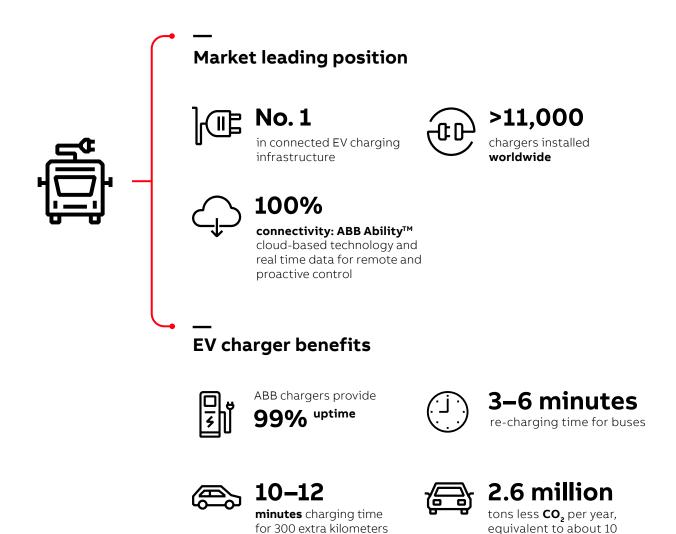


ABB has years of experience in creating, installing and maintaining charging infrastructure, including several nationwide charger networks. We are laying the foundations for a future of smarter, reliable, and emission-free mobility, accessible by everyone, everywhere.

million cars

Highlights

Results from Part Three of the 2019 Energy News and ABB Electricity Survey are now in. We had more than 500 respondents complete this year's survey, providing insight into the sector.

In response to Part Three of our survey, which had a customer, convergence and carbon focus, the sector thought:



Customer

By comparison it looks like the retail sector is ahead on customer focus, maybe unsurprisingly. With the transmission sector scoring lowest, there seems to be 'room for improvement'?



Convergence: Data

We are very split on whether customers would be happy for us to share their data. Do we just need to ask, or just ensure we deliver real value when doing so?



Convergence: Demand response

We are thinking education is the key to unlocking customers' willingness to participate in demand response and distributed energy markets.



Net zero - Impact on large users

The most likely response is a mix of reactions including seeking offsets. The least likely response was downsizing or shutting down.



Electricity Price Review (EPR)

We asked this question before the Government's response to the EPR recommendations were published, but our survey respondents seemed to have pretty mixed views on our responsibilities to the New Zealand customer

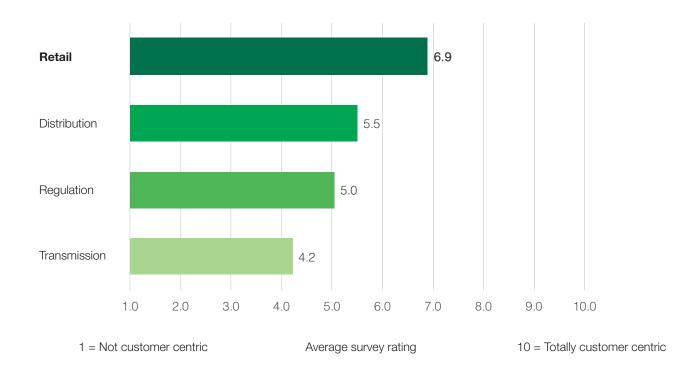
Read on for the detailed results...





Question 1

Which sub-sector focuses most on creating positive outcomes for consumers by maximizing service and/or product offerings and building relationships? Score each sub-sector out of 10, with '10' being totally consumer-centric and '1' being they totally ignore outcomes for end users.





Distribution – 5.5

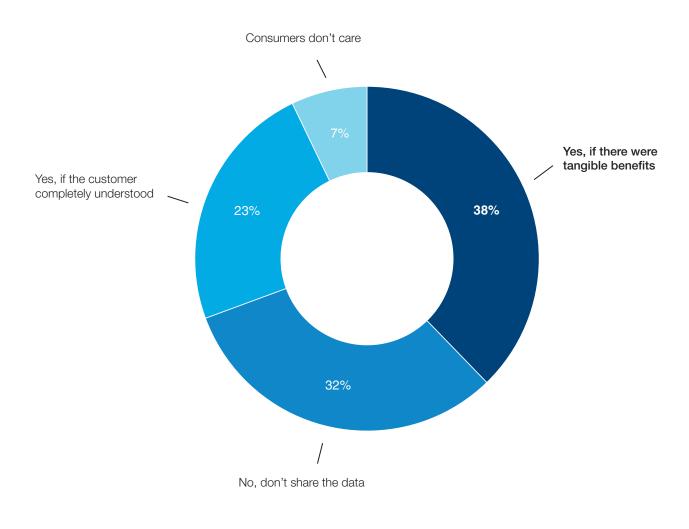
Regulation – 5.0

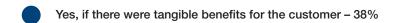
Transmission – 4.2



Question 2

Other entities, such as Google and Facebook, give their users an option to use their personal data to on-sell to third parties for benefits. Do you think electricity customers would be comfortable allowing this with their usage data? Select the response you most agree with:



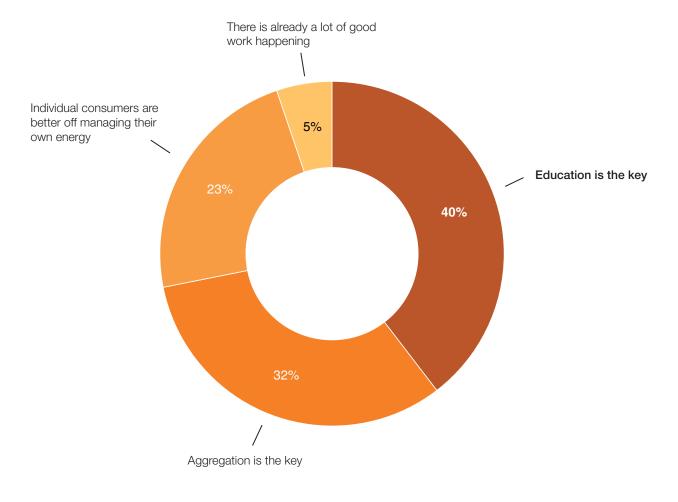


- No, they would not be happy with the loss of privacy and there aren't any great benefits to be had 32%
- Yes, if the customer completely understood what the data would be used for 23%
- Most couldn't care one way or another and wouldn't want to be bothered with this 7%



Question 3

Consumers are buying more energy technology items - like electric vehicles, solar panels and energy storage equipment - that can enable them to benefit by selling excess energy (or demand response) back to the grid when the time suits. How can the industry work with these consumers to best realise these benefits? Pick the option you agree with the most:

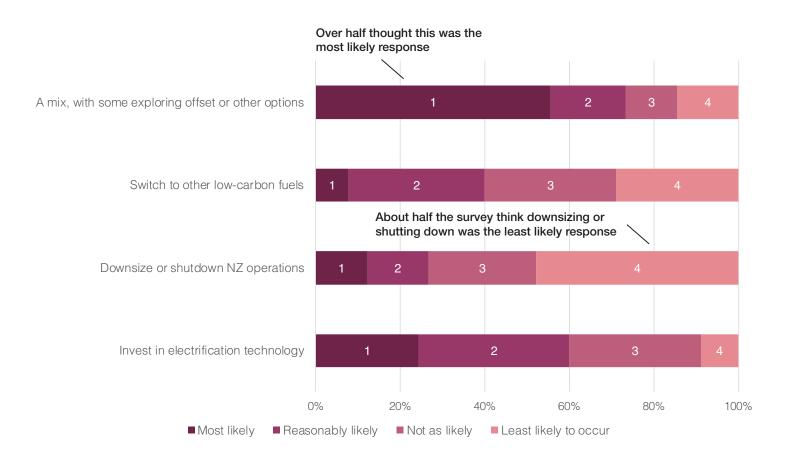


- Education is the key, most customers that are buying these items aren't aware of all the different ways they can benefit 40%
- Aggregation is the key, find a way to aggregate the available energy (and load response) and integrate this with system operation 32%
- Individual consumers are better off managing their own energy and load and maximising returns, they just need to be provided the home energy systems to manage that for them 23%
- There is already a lot of good work happening between the sector and consumers on how this technology can be mutually beneficial 5%



Question 4

The Government is aiming for a net zero carbon economy by 2050. How will the transition to lower emissions affect large energy users and the electricity sector? Rank the following in order from most likely to happen to the least with 1 being the most likely and 4 being the least likely:

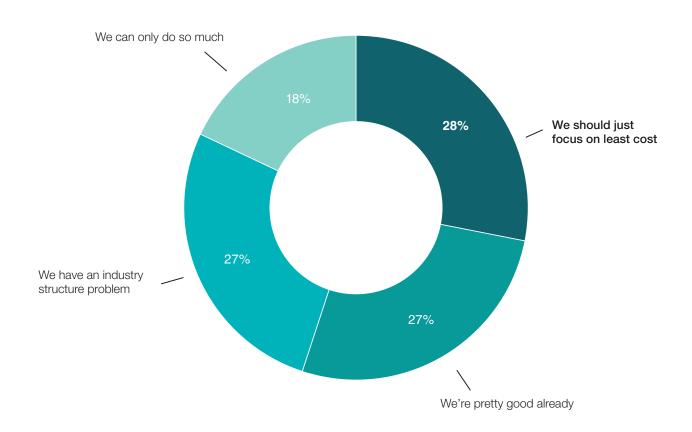


| | Most Likely | • | - | Least likely |
|--|-------------|-----|-----|--------------|
| Option | 1 | 2 | 3 | 4 |
| Invest in electrification technology | 24% | 36% | 31% | 9% |
| Downsize or shutdown NZ operations | 12% | 14% | 26% | 48% |
| Switch to other low-carbon fuels | 8% | 32% | 31% | 29% |
| A mix, with some exploring offset or other options | 56% | 18% | 12% | 14% |



Question 5

The Electricity Price Review (EPR) final report is expected to highlight the industry's responsibility to the customer. How responsible is the sector for being fair to its customers over and above providing an affordable service? Choose the option you most align with:





- We're pretty good already 27%
- We have an industry structure problem 27%
- We can only do so much 18%



About ABB

ABB (ABBN: SIX Swiss Ex) is a technology leader that is driving the digital transformation of industries. With a history of innovation spanning more than 130 years, ABB has four customer-focused, globally leading businesses: Electrification, Industrial Automation, Motion, and Robotics & Discrete Automation, supported by the ABB Ability™ digital platform. ABB's Power Grids business will be divested to Hitachi in 2020. ABB operates in more than 100 countries with about 147,000 employees.

ABB has been established in New Zealand for over 85 years and employs around 400 people across 9 locations nationwide.

In addition to sales and service locations, ABB has two manufacturing facilities in New Zealand located in Henderson, Auckland and Napier. www.abb.com

About Energy News

Energy News is New Zealand's online news and information service for the energy sector. The website was launched in 2008 and now boasts more than 5,000 readers every month from 300 subscribing organisations. Its readership consists of New Zealand energy sector organisations and service companies spanning the electricity, oil and gas, petroleum and alternative energy value chain.

The subscription-based site provides daily news, executive interviews, opinion and commentary. It also hosts a suite of information resources including two large databases of asset owners and energy resources. Other information includes 30-minute electricity prices, supply and demand monitoring, petroleum permit deadline summaries and an oil price monitor.

Thanks to our industry advisory panel, who are helping to develop the surveys this year.

