

# Summary of Survey Findings

## 1) Consumer Survey Findings

### UMR Executive summary

#### 2.1 Executive summary

##### ■ Slim majority think electricity retailers are competitive

Although a majority (56%) of those who pay the household electricity bill or who have a say on who their electricity retailer is ('bill payers') rate electricity retailers as competitive, a large minority (36%) do not think they are. Also, 20% rate their competitiveness as 'just adequate'<sup>1</sup>. These results are very similar for all general public respondents, 86% of which in this survey were either the bill payer or had a say on who their retailer was.

##### ■ Only petrol companies rated as significantly less competitive than electricity retailers

Compared with six other retail businesses, only petrol companies were rated as significantly less competitive than electricity retailers. Supermarkets, electrical goods stores, banks and other financial services, and telephone companies were rated as more competitive. Although fewer rated online bookstores as competitive, almost half did not know enough about them to provide a rating, but among those that did a narrow majority thought they were competitive.

##### ■ High level unsure or have no firm opinions on electricity industry

Most respondents either did not know enough to rate the electricity industry on aspects of its competitiveness, reliability and efficiency or they chose a neutral rating reflecting that they had no firm opinions.

##### ■ More rate electricity industry reliability and efficiency as good

More of the general public rated the electricity industry as good<sup>2</sup> than poor on the following statements:

- *The New Zealand electricity market ensures electricity is generated and supplied efficiently.*
- *There is a reliable supply of electricity each day, that is, a good balance is achieved between the cost of power cuts versus the cost of maintaining power lines, which is funded by the fixed daily charge on your electricity bill.*
- *There is enough electricity to meet ongoing needs, that is, a good balance is achieved between the cost of having some power stations sitting idle most of the time against*

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<sup>1</sup> Competitiveness was measured on a 0-10 scale where 0 meant 'not at all competitive', 5 meant 'just adequate' and 10 'extremely competitive.'

<sup>2</sup> Ratings were on a 0-10 scale where 0 meant 'very poor', 5 'neutral' and 10 'extremely good'. Those who gave a 6-10 rating are described as rating a statement as 'good', those who gave a 0-4 rating are described as rating statements as 'poor'. Those who chose the neutral 5 rating are deemed to have no firm opinions on the statements.

*the cost and risk of power shortages when there is a long drought that limits hydro generation.*

#### ■ **Level of competition in electricity industry rated poorly**

More of the general public rated the electricity industry as poor<sup>3</sup> than good on the following statements:

- *The current level of competition between electricity retailers ensures that prices consumers pay only rise in line with costs to the electricity companies.*
- *The current level of competition among electricity generators ensures they build the most efficient power stations and generate electricity as cheap as possible.*
- *The New Zealand electricity market ensures that the right mix of power stations is built in time to meet growing demand for power.*

## **2.2 Survey profile**

A very high proportion (86%) of those surveyed were bill payers. This is in line with other surveys we have conducted which have asked exactly the same question.

This report focuses on the general public's perceptions as opposed to the bill payer. As the latter represent such a high proportion of the general public, there is no significant difference between the results of the two groups. However, some differences do arise between bill payers and non-bill payers. Where this occurs this is noted as will be the case for other demographics.

## **2.3 Electricity retailers rate relatively low as competitive**

Of seven retail sectors measured, electricity retailers were rated as more competitive than petrol stations (petrol prices), but less competitive than supermarkets, electrical goods stores, banks and other financial services, telephone companies (including mobile phone services). Competitiveness was somewhat on a par with online bookstores though only slightly more than half (54%) were able to rate them.

#### ■ **Electricity retailers**

Slightly more than half (56%) rated electricity retailers as competitive and 36% rated them as uncompetitive. However, 20% rated their competitiveness as 'just adequate'. Significant differences arose across the following:

- only 43% of those from rural areas rated electricity retailers as competitive compared, for example, with Auckland where 58% rated them as competitive.
- females (61%) were more likely to rate them as competitive than males (50%).

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<sup>3</sup> Ratings were on a 0-10 scale where 0 meant 'very poor', 5 'neutral' and 10 'extremely good'. Those who gave a 6-10 rating are described as rating a statement as 'good', those who gave a 0-4 rating are described as rating statements as 'poor'. Those who chose the neutral 5 rating are deemed to have no firm opinions on the statements.

- those in the highest income band (over \$70,000 per annum) were least likely to rate them as competitive (49%).
- those who rated the electricity industry poorly for its current level of competition between retailers to ensure prices rise in line with increased costs were far more likely (48%) to rate electricity retailers as uncompetitive in this question too. Similarly, those who rated the electricity industry as good were far more likely (67%) to rate electricity retailers as competitive.

#### ■ **Supermarkets - most competitive**

Supermarkets were rated the most competitive with 73% rating them so and 24% as uncompetitive. As was the case for most of the retailers, a large minority (23%) rated their competitiveness as 'just adequate'. The only notable difference was that females (77%) were more likely to rate them as competitive than males (69%).

#### ■ **Electrical goods stores - second most competitive**

Electrical goods stores were rated second most competitive with 68% rating them so and 17% as uncompetitive. A large minority (20%) rated their competitiveness as 'just adequate'. Apart from the very high levels of those unable to provide a rating for online bookstores (see below) this category attracted the highest number of those 'unsure' who were unable to provide a rating (15%).

#### ■ **Banks and other financial services - third most competitive**

Banks and other financial services were rated third most competitive with 66% rating them so and 26% as uncompetitive. A large minority (23%) rated their competitiveness as 'just adequate'. The only notable differences were that more females (69%) rated them as competitive than males (61%) and that more younger people rated them as competitive than older people. For instance, 72% of those under 30 rated them as competitive compared to 64% of those over 60.

#### ■ **Telephone companies including mobile phone services - fourth most competitive**

Telephone companies including mobile phone services were rated fourth most competitive with 62% rating them so and 32% as uncompetitive. A large minority (18%) rated their competitiveness as 'just adequate'. Again more females (70%) rated them as competitive than males (55%). More younger people rated them as uncompetitive than older people. For instance, 35% of those under 30 rated them as uncompetitive compared to 28% of those over 60. Also, only 51% of those on incomes over \$70,000 rated them as competitive compared to 72% of those on incomes of less than \$15,000.

#### ■ **Petrol stations (petrol prices) - least competitive**

Petrol stations were rated least competitive with 41% rating them so and 55% as uncompetitive. A large minority (20%) rated their competitiveness as 'just adequate'. More males (65%) rated them as uncompetitive than females (48%). Similarly, more of those on incomes over \$70,000 (68%) rated them as uncompetitive compared to those on less than \$15,000 (49%).

### ■ **Online bookstores - many unsure**

Online bookstores stood out among those tested for having a very high number (46%) unsure and unable to rate their competitiveness compared to 28% who rated them as competitive and 26% who rated them as uncompetitive. Age was a significant factor in being able to provide a rating with 70% of those over 60 unable to do so compared to 29% of those under 30. Of those able to provide a rating the most noticeable difference was that rating of their competitiveness declined with age. For instance, 32% of those under 30 who gave a rating rated them as competitive compared with only 15% of those over 60.

## 2.4 **Rating of aspects of the electricity industry**

Of six aspects of the electricity industry's performance that were measured, those that related to efficient supply and reliability rated better than those related to competitiveness though none rated particularly well as no aspect was rated as 'good' by a majority. The measures for all aspects though showed that a large number either said they did not know enough to be able to provide a rating or provided a 'neutral' rating of 5 reflecting that they did not have firm opinions either way.

### ■ **Market ensures electricity is generated and supplied efficiently - rated best**

A plurality (42%) rated the electricity industry as good for *'The New Zealand electricity market ensures electricity is generated and supplied efficiently'* and 21% rated it as poor with 24% providing a neutral answer and 13% unsure. Differences across demographics included:

- more males (27%) rated this as poor than females (15%) who also opted for 'unsure'/neutral more (41% females; 33% males).
- younger people being slightly more likely to rate it as good with 48% of those under 30 rating it this way compared to 40% of those over 60.
- a slight difference by income with 47% of those on incomes over \$70,000 rating this as good compared to 41% of those on incomes less than \$15,000.
- those that rated electricity retailers as uncompetitive were more likely to rate this as poor with 34% doing that compared to 15% of those who rated them as competitive.

### ■ **Reliable supply of electricity each day - rated second best**

A plurality (37%) rated the electricity industry as good for *'There is a reliable supply of electricity each day, that is, a good balance is achieved between the cost of power cuts versus the cost of maintaining power lines, which is funded by the fixed daily charge on your electricity bill'* and 19% rated it as poor with 23% providing a neutral answer and 21% unsure. Differences across demographics included:

- more males (24%) rated this as poor than females (15%) who also opted for 'unsure'/neutral more (49% females; 38% males).
- more of those on higher incomes gave a good rating with 46% of both those on over \$70,000 a year as well as those on \$50,001-\$70,000 doing so.

- those that rated the industry as poor for the other measures in this section were also far more likely to rate it as poor for this statement too. This was most marked in the case of *'The New Zealand electricity market ensures electricity is generated and supplied efficiently'* - of those who rated that as poor, 50% also rated this statement as poor.
- those who rated electricity retailers as uncompetitive were more likely to rate this statement as poor (29%) than those who rated them as competitive (15%).

#### ■ **Enough electricity to meet ongoing needs - finely balanced rating**

A plurality (27%) rated the electricity industry as good for *'There is enough electricity to meet ongoing needs, that is, a good balance is achieved between the cost of having some power stations sitting idle most of the time against the cost and risk of power shortages when there is a long drought that limits hydro generation'* and 22% rated it as poor with 24% providing a neutral answer and 27% unsure. Differences across demographics included:

- more males (34%) rated this as good than females (21%) who also opted for 'unsure'/neutral more (57% females; 44% males).
- those under 30 gave a slightly higher rating for good (33%) compared to those over 60 (25%).
- 36% of those on incomes over \$70,000 a year gave a rating of good compared to 24% on incomes of less than \$15,000 who also opted for 'unsure'/neutral more (54%) compared to those on the highest income band (41%).
- those that rated the industry as poor for the other measures in this section were also far more likely to rate it as poor for this statement too. This was most marked for those who rated reliability of supply as poor with 50% of those who did that rating this statement as poor too.
- more of those who rated electricity retailers as uncompetitive rated this statement as poor (31%) than those who rated them as competitive (18%).

#### ■ **Level of competition between retailers ensures consumer prices only rise in line with electricity companies' costs - rates most poorly**

A plurality (39%) rated the electricity industry as poor for *'The current level of competition between electricity retailers ensures that prices consumers pay only rise in line with costs to the electricity companies'* and 21% rated it as good with 23% providing a neutral answer and 17% unsure. Differences across demographics included:

- more males (44%) rated this as poor than females (33%) who also opted for 'unsure'/neutral more (45% females; 35% males).
- those over 60 gave a higher rating for poor (43%) compared to those under 30 (28%).
- 55% of those on incomes over \$70,000 a year gave a rating of poor compared to 28% on incomes of less than \$15,000 who also opted for 'unsure'/neutral more (42%) compared to those on the highest income band (30%).
- 41% of bill-payers rated this as poor compared to 25% of non-bill payers.
- again those that rated the industry as poor for the other measures in this section were also far more likely to rate it as poor for this statement too. This was most

marked for those who rated the level of competition to ensure the most efficient power stations were built as poor with 63% of those who did that rating this statement as poor too.

- more of those who rated electricity retailers as uncompetitive rated this statement as poor (52%) than those who rated them as competitive (33%).

#### ■ **Level of competition ensures most efficient power stations built and generation is as cheap as possible - rates poorly**

A plurality (36%) rated the electricity industry as poor for *'The current level of competition among electricity generators ensures they build the most efficient power stations and generate electricity as cheap as possible'* and 22% rated it as good with 23% providing a neutral answer and 19% unsure. Differences across demographics included:

- more males (49%) rated this as poor than females (33%) who also opted for 'unsure'/neutral more (46% females; 36% males)
- 49% of those on incomes over \$70,000 a year gave a rating of poor compared to 29% on incomes of less than \$15,000 who also opted for 'unsure'/neutral more (46%) compared to those on the highest income band (29%)
- again those that rated the industry as poor for the other measures in this section were also far more likely to rate it as poor for this statement too.
- those who rated electricity retailers as uncompetitive were more likely to rate this statement as poor (49%) than those who rated them as competitive (31%).

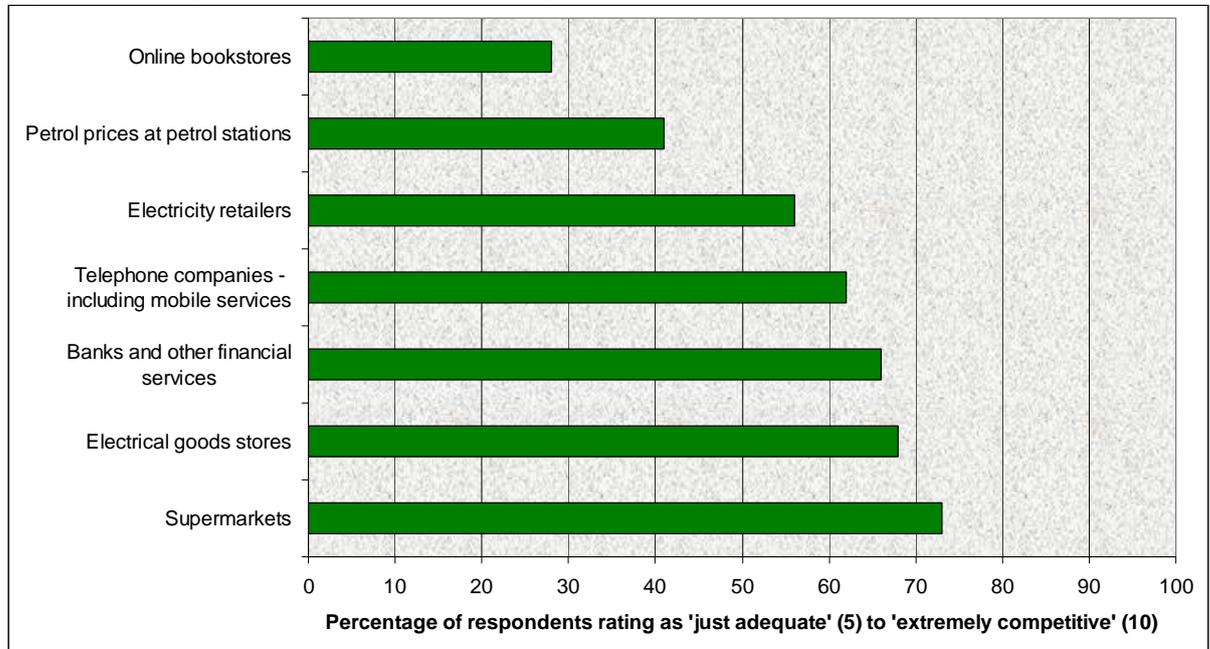
#### ■ **Electricity market ensures the right mix of power stations built in time to meet demand - rates poorly too**

A plurality (34%) rated the electricity industry as poor for *'The New Zealand electricity market ensures that the right mix of power stations is built in time to meet growing demand for power'* and 22% rated it as good with 21% providing a neutral answer and 23% unsure. Differences across demographics included:

- more males (43%) rated this as poor than females (25%) who also opted for 'unsure'/neutral more (52% females; 34% males).
- those under 30 gave a slightly higher rating for good (28%) compared to those over 60 (21%).
- 42% of those on incomes over \$70,000 a year gave a rating of poor compared to 27% on incomes of less than \$15,000 who also opted for 'unsure'/neutral more (46%) compared to those on the highest income band (35%).
- those that rated the industry as poor for the other measures in this section were also far more likely to rate it as poor for this statement too. This too was most marked for those who rated the statements about the level of competition as poor (the previous two statements).
- more of those who rated electricity retailers as uncompetitive rated this statement as poor (48%) than those who rated it as competitive (27%).

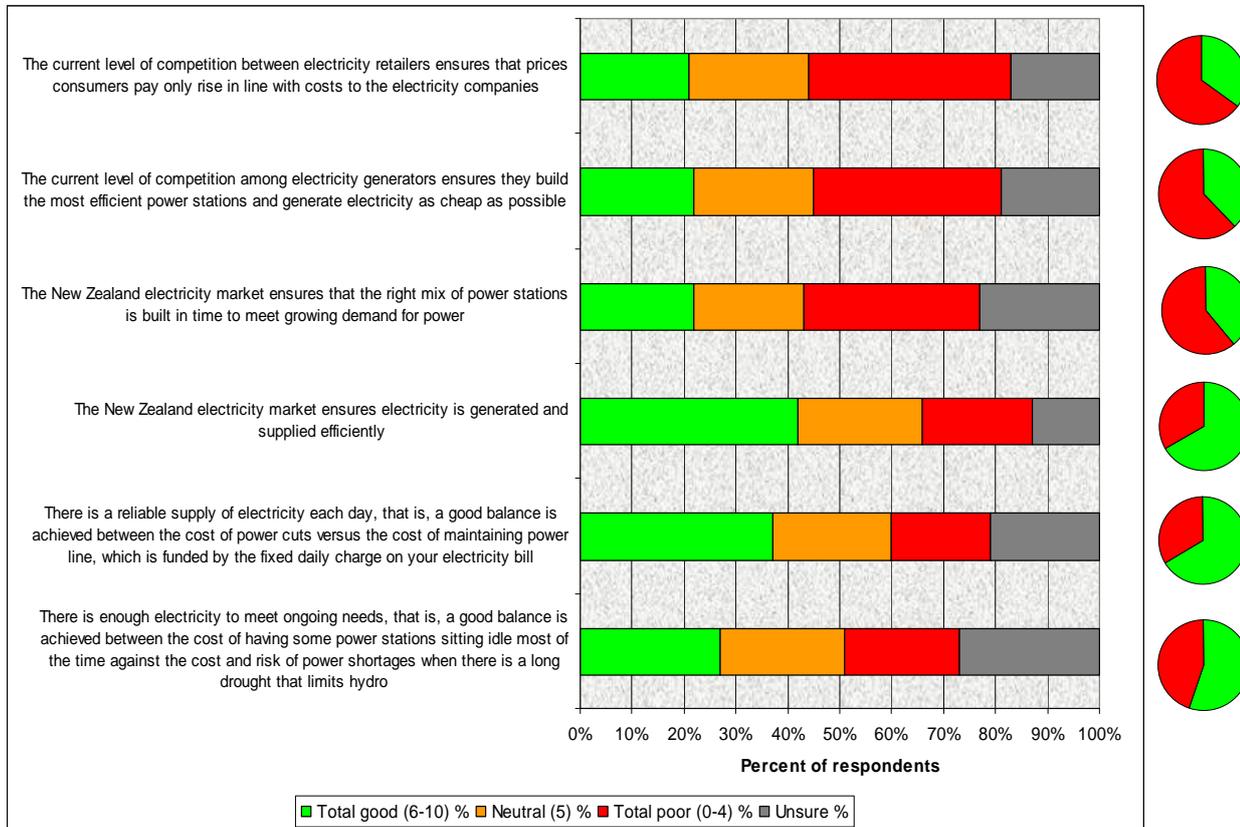
## Graphs prepared by Electricity Authority

Figure 1: Rating competitiveness for a range of businesses



**Figure 2: Rating aspects of the electricity industry**

The proportion of 'total poor' to 'total good' ratings for each aspect are shown in the small pie graphs to the right of the main graph.



## 2) Sector Stakeholder Survey Findings

### UMR Executive summary

#### 2.5 Overview

The electricity industry was rated generally poorly for many of the aspects measured. Electricity retailers were not rated as competitive as most of the six other retail sectors they were compared with. While the industry rated well for its day-to-day reliability of supply, it rated poorly for competition, efficiency and meeting long-term supply needs. The survey showed weak levels of understanding of key aspects of competition that were tested with a high proportion unable to give a rating.

#### 2.6 Retailer comparisons

The competitiveness of electricity retailers was measured against the competitiveness of six other types of retailers.

##### ■ A minority think electricity retailers are competitive

Only a minority (38%) of those surveyed rate electricity retailers as competitive and a large minority (35%) do not think they are. Also, 23% rate their competitiveness as 'just adequate'<sup>4</sup>. Of seven different types of retailers tested, electricity retailers rated ahead of only petrol stations (petrol prices) as competitive. Electrical goods stores, supermarkets, online bookstores, telephone companies and banks and other financial services were rated as more competitive in that order.

#### 2.7 Rating aspects of the electricity industry

Six aspects of the electricity industry were rated on a 0-10 scale where 0 meant 'very poor' and 10 'very good'.

##### ■ Only reliability of daily supply rated well

Only one of six statements about the electricity industry's performance was rated as 'good'<sup>5</sup> by a majority of those who did the survey and that was:

- *There is a reliable supply of electricity each day, that is, a good balance is achieved between the cost of power cuts versus the cost of maintaining power lines, which is funded by the fixed daily charge on your electricity bill.* (65% rated as good, 6% as poor and 23% gave a neutral rating of '5').

##### ■ Level of competition in electricity industry rated most poorly

The statements that rated most poorly related directly to the level of competition with slightly more than half rating its performance as poor in this area.

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<sup>4</sup> Competitiveness was measured on a 0-10 scale where 0 meant 'not at all competitive' and 10 'extremely competitive.' A rating of '5' is deemed as 'just adequate.'

<sup>5</sup> Ratings were on a 0-10 scale where 0 meant 'very poor', 5 'neutral' and 10 'extremely good'. Those who gave a 6-10 rating are described as rating a statement as 'good', those who gave a 0-4 rating are described as rating statements as 'poor'. Those who chose the neutral 5 rating are deemed to have no firm opinions on the statements.

- *The current level of competition among electricity generators ensures they build the most efficient power stations and generate electricity as cheap as possible. (52% rated as poor, 27% as good and 19% gave a neutral rating of '5').*
- *The current level of competition between electricity retailers ensures that prices consumers pay only rise in line with costs to the electricity companies. (51% rated as poor, 30% as good and 13% gave a neutral rating of '5').*

#### ■ **Electricity industry rated poorly for efficiency and meeting longer term supply needs**

The industry rated generally poorly for efficiency and its ability to meet longer term supply needs.

- *The New Zealand electricity market ensures that the right mix of power stations is built in time to meet growing demand for power. (46% rated this as poor and 28% as good with 12% giving a neutral rating of '5').*
- *There is enough electricity to meet ongoing needs, that is, a good balance is achieved between the cost of having some power stations sitting idle most of the time against the cost and risk of power shortages when there is a long drought that limits hydro generation. (35% rated this as poor and 36% as good with 25% giving a neutral rating of '5').*
- *The New Zealand electricity market ensures electricity is generated and supplied efficiently. (31% rated this as poor and 40% as good with 25% giving a neutral rating of '5').*

## 2.8 **Competition in the electricity industry**

Levels of agreement with 10 statements reflective of a workably competitive market were rated on a 0-10 scale where 0 meant 'strongly disagree' and 10 'strongly agree'.

#### ■ **Highest level of agreement with spot price statements**

The highest level of agreements were for two statements related to the spot market with slightly more than half of those surveyed agreeing with them:

- *Prices in the spot market when hydro lake levels are well below average reflect the outcomes expected in a workably competitive market. (52% agree, 24% disagree, 15% neutral with a '5' rating and 9% don't know).*
- *Prices in the spot market generally reflect the outcomes expected in a workably competitive market. (51% agree, 24% disagree, 13% neutral with a '5' rating and 11% don't know).*

#### ■ **Highest level of disagreement with retail market**

The highest level of disagreement was with the statement related to the retail market with almost half in disagreement:

- *Prices in New Zealand's retail electricity market reflect the outcomes expected in a workably competitive market. (45% disagree, 38% agree, 12% neutral with a '5' rating and 5% don't know).*

#### ■ **High level of 'don't know' for all other statements**

Of the remaining statements between one-third and half did not have an opinion to provide a rating. Of these, two had higher levels of agreement than disagreement among those who provided a rating:

- *Prices for voltage support reflect the outcomes expected in electricity futures contracts reflect the outcomes expected a workably competitive market. (25% agree, 18% disagree, 24% neutral with a '5' rating and 33% don't know).*
- *Prices in the ASX market for short-term (e.g. up to 6 months ahead) electricity futures contracts reflect the outcomes expected a workably competitive market. (25% agree, 23% disagree, 13% neutral with a '5' rating and 39% don't know).*
- *Prices for black start reflect the outcomes expected in a workably competitive market. (16% agree, 10% disagree, 24% neutral with a '5' rating and 49% don't know).*

The following had higher levels of disagreement than agreement among those who provided a rating:

- *Prices in the over-the-counter hedge market reflect the outcomes expected in a workably competitive market. (38% disagree, 15% agree, 13% neutral with a '5' rating and 33% don't know).*

Of those who identified how they purchased electricity and gave an answer (n=20), only one agreed with this statement, 13 disagreed and six were neutral.

- *Prices in the ASX market for long-term (e.g. 3 year ahead) electricity futures contracts reflect the outcomes expected a workably competitive market. (32% disagree, 18% agree, 19% neutral with a '5' rating and 31% don't know).*
- *Prices for frequency keeping reflect the outcomes expected in electricity futures contracts reflect the outcomes expected a workably competitive market. (24% disagree, 19% agree, 21% neutral with a '5' rating and 35% don't know).*

And opinions were evenly divided for:

- *Prices in the Instantaneous Reserves (IR) market reflect the outcomes expected in a workably competitive market. (29% agree, 29% disagree, 19% neutral with a '5' rating and 33% don't know).*

## **2.9 Efficiency in the electricity industry**

Levels of agreement with eight statements relating to the efficiency of the wholesale, hedge and retail markets together with transmission and distribution arrangements were rated on a 0-10 scale where 0 meant 'strongly disagree' and 10 'strongly agree'. A ninth statement measured overall efficiency.

### **■ Overall efficiency rated poorly**

The overall efficiency of the wholesale, retail and transmission/distribution arrangements for coordinating electricity production and consumption and for facilitating timely and innovative investment in the electricity system rated poorly. Less than half (40%) agreed these were efficient mechanisms for facilitating such investment, 35% disagreed and 5% did not know.

### ■ **Highest agreement with wholesale market coordinating production and consumption**

The highest level of agreement was with the wholesale market being an efficient mechanism for coordinating production and consumption with 57% in agreement, 19% disagreeing, 16% neutral giving a rating of '5' and 8% don't know. This was the only statement to attract agreement from the majority of those surveyed.

### ■ **Highest disagreement with retail market facilitating timely and innovative investment**

The highest level of disagreement was with the retail market facilitating timely and innovative investment in the electricity system with 55% in disagreement, 27% in agreement, 13% neutral giving a rating of '5' and 5% don't know. This was the only statement to attract disagreement from the majority of those surveyed.

### ■ **Higher levels of disagreement for those statements relating to facilitating timely and innovative investment**

There were higher levels of disagreement with statements related to facilitating timely and innovative investment than for coordinating production and consumption. Apart from the retail market detailed above, there were relatively high levels of disagreement for the following in facilitating timely and innovative investment:

- the wholesale market (44% disagree, 32% agree, 16% neutral and 8% don't know);
- the hedge market (44% disagree, 19% agree, 17% neutral and 21% don't know);
- transmission and distribution arrangements (37% disagree, 33% agree, 19% neutral and 11% don't know).

### ■ **Coordinating production and consumption**

Apart from the wholesale market detailed above, there were somewhat high levels of disagreement for the following in coordinating production and consumption:

- the retail market (41% disagree, 34% agree, 19% neutral and 7% don't know);
- the hedge market (38% disagree, 20% agree, 21% neutral and 21% don't know);
- transmission and distribution arrangements (28% disagree, 36% agree, 24% neutral and 12% don't know).

## **2.10 Reliability in the electricity industry**

Levels of agreement with five statements measuring the reliability of supply of electricity were rated on a 0-10 scale where 0 meant 'strongly disagree' and 10 'strongly agree'.

### ■ **Most agree on day-to-day reliability**

Only one of the statements attracted clear majority agreement and this related to the day-to-day reliability of supply.

- *There is an efficient level of day-to-day reliability e.g. dealing with localised power outages, frequency and voltage stability.* (68% agree, 12% disagree, 16% neutral with a '5' rating and 3% don't know).

### ■ **Most disagree that consumers understand the trade-offs**

Most disagreed that consumers appreciated and understood the trade-offs between costs and reliability.

- *Consumers appreciate and understand the trade-offs between costs and reliability.* (15% agree, 66% disagree, 15% neutral with a '5' rating and 4% don't know).

#### ■ **About half agree investors understand the trade-offs**

About half agreed that investors appreciated and understood the trade-offs between costs and reliability.

- *Investors appreciate and understand the trade-offs between costs and reliability.* (48% agree, 21% disagree, 21% neutral with a '5' rating and 9% don't know).

#### ■ **Less than half convinced about long-term reliability**

Less than half agree that over the next 10 years the level of reliability will improve.

- *Over the next 10 years the level of reliability will improve.* (45% agree, 27% disagree, 25% neutral with a '5' rating and 4% don't know).

#### ■ **Weak agreement with cost of reliability appropriately balanced against risk of shortages**

Only about one-third agreed that the level of security of supply was efficient as the costs of reserve generation and demand side response balanced the risk of shortages.

- *The current level of security of supply is efficient as the cost of reserve generation and demand response capability is appropriately balanced against the cost and risk of power shortages.* (34% agree, 33% disagree, 25% neutral with a '5' rating and 8% don't know).

## 2.11 Current market arrangements

Fourteen current market arrangements within the electricity sector were rated on a 0-10 scale where 0 meant 'very poor' and 10 'very good.' None of the statements was rated good by a majority of those surveyed. Four arrangements attracted a high percentage (40%-47%) of don't know - ASX electricity futures market, over the counter hedge market, instantaneous reserves market and other ancillary reserves markets.

#### ■ **More rate 9 arrangements poor than good**

More rated the following arrangements poor than they did good:

- encouraging efficient investment and innovation in distribution (53% poor, 21% good, 13% neutral and 12% don't know);
- demand side response (44% poor, 27% good, 13% neutral and 16% don't know);
- minimising barriers to entry for new retail companies or existing companies expanding into new areas (42% poor, 21% good, 23% neutral and 15% don't know);
- minimising barriers to entry for new generation projects and/or new generation companies (39% poor, 25% good, 20% neutral and 16% don't know);
- effectiveness of regulatory arrangements overall (39% poor, 30% good, 21% neutral and 8% don't know);

- encouraging efficient investment and innovation in generation (36% poor, 33% good, 19% neutral and 13% don't know);
- retail market (34% poor, 31% good, 24% neutral and 9% don't know);
- ASX electricity futures market (26% poor, 16% good, 20% neutral and 40% don't know);
- Over the counter hedge market (24% poor, 14% good, 23% neutral and 41% don't know).

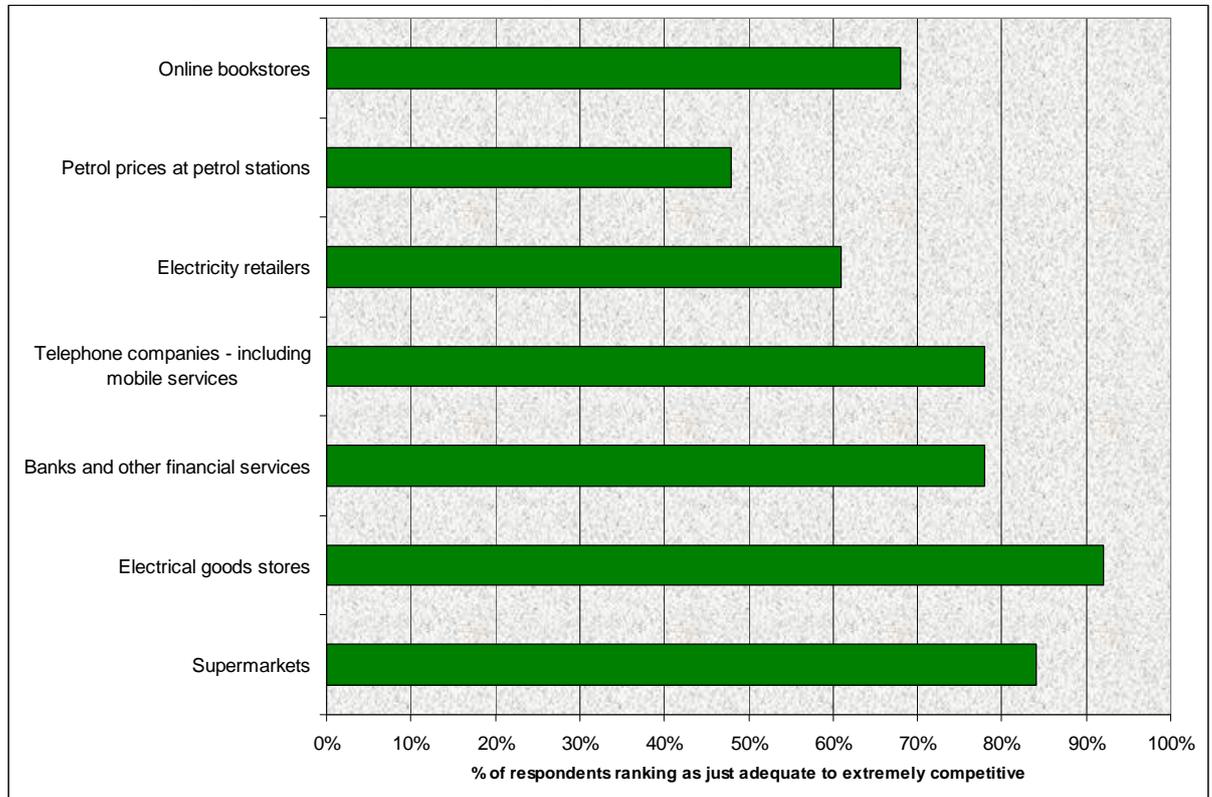
■ **More rate 5 arrangements good than poor**

More rated the following arrangements good than they did poor:

- wholesale spot market (38% good, 20% poor, 20% neutral and 21% don't know);
- ensuring an appropriate balance between reliability and cost (35% good, 34% poor, 27% neutral and 5% don't know);
- encouraging efficient investment and innovation in transmission (34% good, 33% poor, 21% neutral and 11% don't know);
- instantaneous reserves market (20% good, 13% poor, 23% neutral and 43% don't know);
- other ancillary services markets (14% good, 10% poor, 28% neutral and 47% don't know).

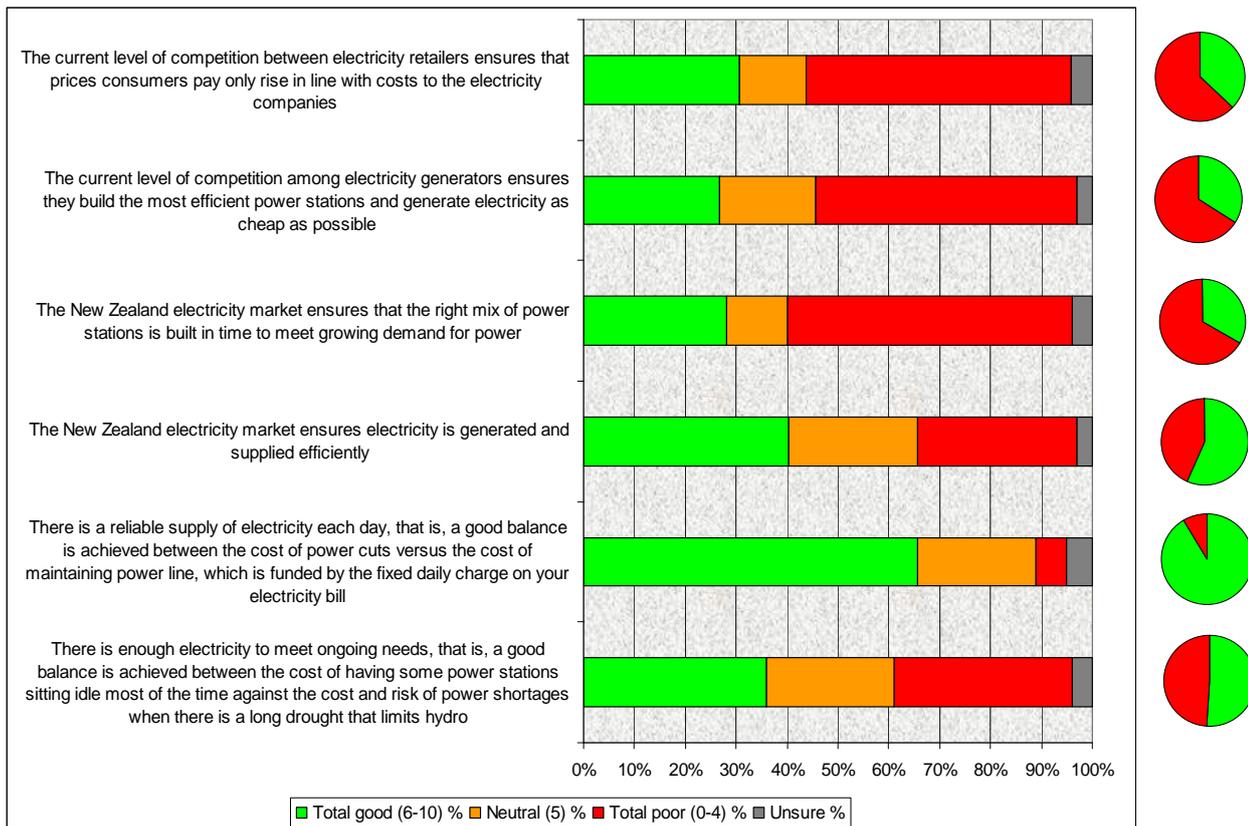
## Graphs prepared by Electricity Authority

Figure 3: Rating competitiveness for a range of businesses



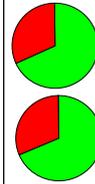
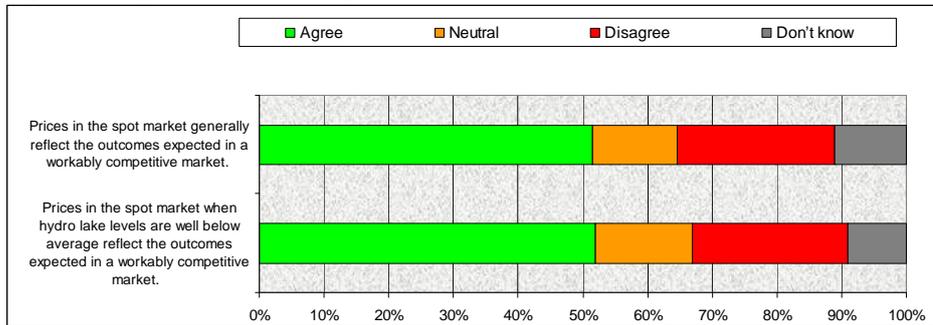
**Figure 4: Rating aspects of the electricity industry**

The proportion of 'total poor' to 'total good' ratings for each aspect are shown in the small pie graphs to the right of the main graph.

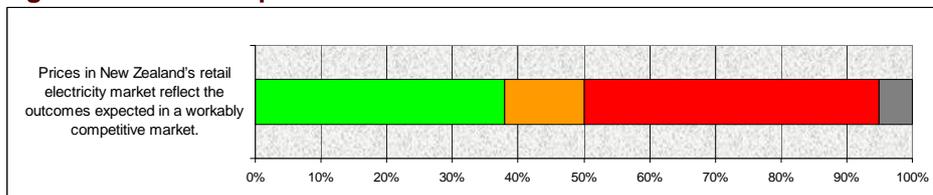


# Competition

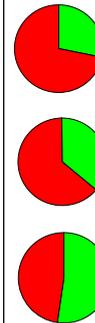
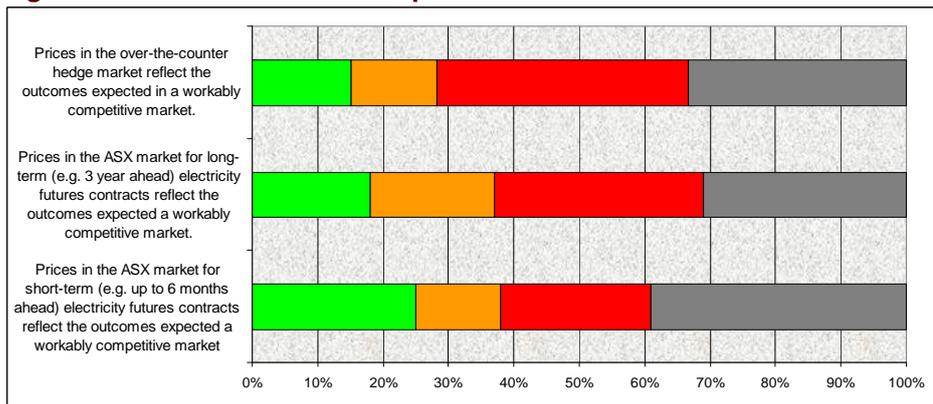
**Figure 5: Spot Market Competition**



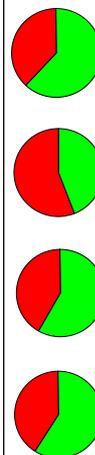
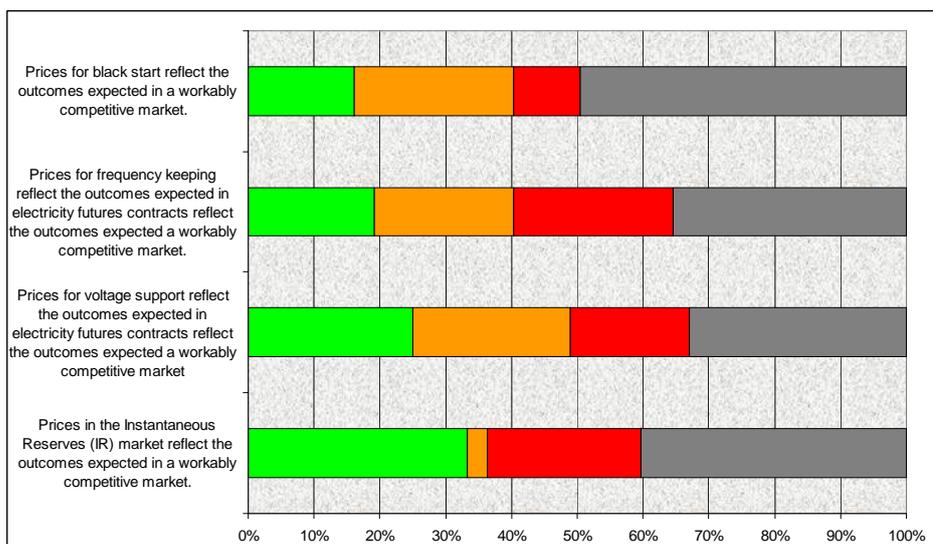
**Figure 6: Retail competition**



**Figure 7: Financial markets competition**

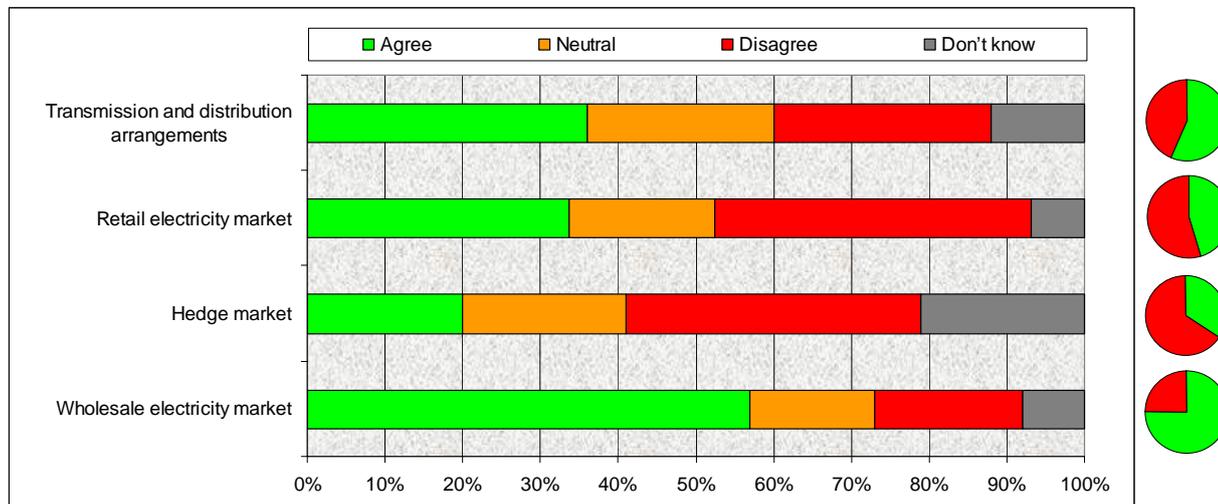


**Figure 7: Ancillary services competition**

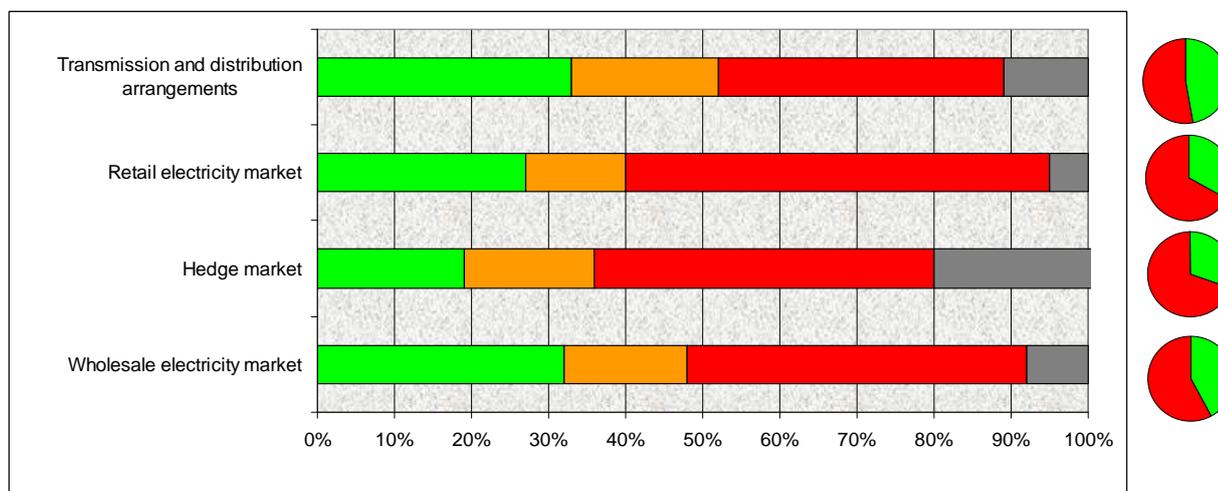


# Efficiency

**Figure 8: Efficiency A. An efficient mechanism for coordinating electricity production and consumption**



**Figure 9: Efficiency B. An efficient mechanism for facilitating timely and innovative investment in the electricity system**



# Reliability

Figure 10: Reliability

