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Objectives and method

1.1 Background and objectives

The Electricity Authority (the Authority) is an independent Crown entity respective for the efficient operation of the New Zealand electricity market. The Authority is the electricity market regulator - regulating the electricity market by developing and setting the market rules, enforcing and administering them and monitoring the market's performance.

The Authority promotes competition in, reliable supply by, and the chicker it operation of, the New Zealand electricity industry for the long-term benefit of consumers

There is a growing segment of electricity consumers on spot based electricity plans.

The Authority commissioned market research to explore and measure understanding, knowledge and attitudes towards the spot based product offering among residential and business consumers.

1.2 Method

The key objective of the research was to exclure and measure understanding, knowledge and attitudes towards the spot based product on sring across business consumers.

The results in this report are based on recentses to an online survey of n=27 business customers. Fieldwork was conducted from 29^{th} August – 3^{rd} November.

Margin of error for a 50% figure at the cov confidence level for a sample size of 27 is plus or minus 18.2%.

For the residential results the margin of error for a 50% figure at the 95% confidence level for a sample size of 523 is plus of minus 4%.

Due to rounding, some tak er may not add to 100%.

Note: This report is based on small sample sizes.

Tables

2.1 Awareness of risk

KNOWLEDGE OF HOW PRICE PAID FOR ELECTRICITY IS DETERMINED

On a scale of 1 to 5, where 1 means fully informed and 5 means not informed at a **1** - how well informed is your business about how the price you pay for electricity is determined? On a scale of 1 to 5, where 1 means fully informed and 5 means not informed at all - how well increased are you about how the price you pay for electricity is determined?

	Business customers All	Business customers Count	restructial customers All	Residential customers Count
Rase n-	70 27	N= 27	523	523
1 - Fully informed	27		525	525
2				
Total informed				
3				
4				
5 - Not informed at all				
Total not informed				
Unsure				

Base: All respondents

ADDITIONAL RISK OF SPOT PRICE ANS COMPARED TO PREVIOUS PLAN

Compared to the previous plan for your business, do you think there is additional risk to being on a spot price plan?/ Compared to your previous plan do you think there is additional risk to being on a spot price plan?

	No.	Business customers All %	Business customers Count N=	Residential customers All %	Residential customers Count N=
Base n=		27	27	523	523
Yes					
No					
Unsure					

Base: All respondents

2.2 Benefits of spot

MAIN BENEFIT OF BUSINESS BEING ON A SPOT PRICE PLAN

What do you see as the main benefit of your business being on a spot price plan?/ What do you see as the

main benefit of being on a spot price plan?				
	Business customers All %	Business customers Count N=	Residential customers All %	residential customers Count N=
Base n=	27	27	523	523

Cheaper power bill/ Saving money Control and choice over power consumption - Can shift demand to off-peak to save money Transparency of costs/ Honest/ Knowing costs More informed about usage/ Ability to track usage Not locked into a contract Fairer Can't see benefit/ Seems about the same Environmentally friendly shift usage to clean energy, use less when CO2 emissions are high, more conscious consumption

Base: All respondents Note: Multiple response question

Other Unsure

2.3 Quantification of risk

FACTORS THAT MIGHT CAUSE ELECTRICITY PRICE INCREASES OR DECREASES -COMBINED MENTIONS [BUSINESS CUSTOMERS]

As far as you are aware, what factors might cause the price your business pays for electric to either increase or decrease?

	AII %	Co int
Hydro lake levels/ Dam levels	70	
Weather/ Seasonal impact		
Demand		
Unforeseen events/ Power outages/ Lines failures/ Network fault		
Supply		
Type of power generation and associated cost/ Price of oil/ Price of fossil fuels		
Line charge changes/ Distribution costs		
Maintenance/ Infrastructure upgrades		
Peak times/ The time of day electricity is used		
Market manipulation/ Greed		
Wholesale price changes		
Tiwai Point Aluminium Smelter		
Тах		
Unsure		

Base: All respondents (n=27) Note: Multiple response question

FACTORS THAT MIGHT CAUSE ELECTRICITY PRICE INCREASES OR DECREASES -MOST INFLUENTIAL FACTOR [BUS' SS CUSTOMERS] As far as you are aware, what factors what cause the price your business pays for electricity

to either increase or decrease?

	All %	Count N=
Supply		
Demand		
Weather/ Seasonal impart		
Unforeseen events/ Prover outages/ Lines failures/ Network fault		
Hydro lake levels/ Com levels		
Line charge chanses/ Distribution costs		
Type of power generation and associated cost/ Price of oil/ Price of fossin these		
Tiwai Pcint Aluminium Smelter		
Peak times, The time of day electricity is used		
Market n. anir ulation/ Greed		
Unsi re		

Eacu: All respondents (n=27)

FACTORS THAT MIGHT CAUSE ELECTRICITY PRICE INCREASES OR DECREASES – SECOND MOST INFLUENTIAL FACTOR [BUSINESS CUSTOMERS]

As far as you are aware, what factors might cause the price your business pays for electricity to either increase or decrease?

	All	Coui."
	%	N -
Hydro lake levels/ Dam levels		
Maintenance/ Infrastructure upgrades		
Supply		
Weather/ Seasonal impact		
Market manipulation/ Greed		
Type of power generation and associated cost/ Price of oil/ Price of fossil fuels		
Unforeseen events/ Power outages/ Lines failures/ Network fault		
Wholesale price changes		
Peak times/ The time of day electricity is used		

Base: Respondents who mentioned two or more factors (n=2J)

FACTORS THAT MIGHT CAUSE ELECTRICITY PRICE IN CLEASES OR DECREASES – THIRD MOST INFLUENTIAL FACTOR [BUSINESS CUSTOMERS]

As far as you are aware, what factors might cause the price your business pays for electricity to either increase or decrease?

	All %	Count N=
Hydro lake levels/ Dam levels		
Demand		
Type of power generation and associated cost/ Price of oil/ Price of fossil fuels		
Weather/ Seasonal impact		
Supply		
Peak times/ The time of day el∈ trici, ; is used		
Market manipulation/ Greed		
Line charge changes/ Distribution costs		
Wholesale price changes		

Base: Respondents who mentioned three or more factors (n=19)

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FACTORS THAT MIGHT CAUSE ELECTRICITY PRICE INCREASES OR DECREASES – FOURTH MOST INFLUENTIAL FACTOR [BUSINESS CUSTOMERS]

As far as you are aware, what factors might cause the price yo to either increase or decrease?	our business pay	ys for electricity
	All	Coui.'
	%	Ru-
Hydro lake levels/ Dam levels		
Unforeseen events/ Power outages/ Lines failures/ Network fault		
Demand		
Supply		
Weather/ Seasonal impact		
Wholesale price changes		
Тах		

Base: Respondents who mentioned four or more factors (n=13)

FACTORS THAT MIGHT CAUSE ELECTRICITY PRICE IN TREASES OR DECREASES – FIFTH MOST INFLUENTIAL FACTOR [BUSINESS CUSTOMETS]

As far as you are aware, what factors might cause the price or business pays for electricity to either increase or decrease?

Č.	All %	Count N=
Weather/ Seasonal impact		
Unforeseen events/ Power outages/ Lines failure: / Ne fault	twork	
Line charge changes/ Distribution costs		
Demand		
Peak times/ The time of day electricity is used		
Maintenance/ Infrastructure upgrades		

Base: Respondents who mention. 1 five factors (n=9)

PERCENTAGE INCREASE IN BILL IN EVENT OF A SOUTH ISLAND DROUGHT

Events such as South Island droughts can cause electricity prices to increase for a number of months. In such a situation, how much higher percent do you think your businesses electricity bill could go per month? Please record how much higher your bill could go as a percentage

All

%

Cou. +

Less than 20% 20%-29% 30%-49% Over 50% Unsure

Base: All respondents (n=27)

LIKELIHOOD OF PRICES BEING THREE TIMES HIGHER THAN A 'ERAGE FOR THREE MONTHS

Thinking about how likely it is for prices to be 3 times higher than average for 3 months - once in how many years do you think this is likely to happen?

		All %	Count N=
Every year			
1 in 3 years			
1 in 5 years			
1 in 10 years			
1 in 15 years			
1 in 20 years			
1 in 50 years			
1 in 100 years	0		
Never			
Unsure			

Base: All respondents (n=27)

e contraction of the second se

AWARENESS OF PERIODS OF ABNORMALLY HIGH SPOT PRICES

In early June 2016 there were two trading periods with aware of this?	abnormally high spot prices	s. Were you
	All	Coun
	%	►!=
Yes		
No		
Base: All respondents (n=27)	4	

IMPACT OF ABNORMALLY HIGH SPOT PRICES ON BILL

Did the abnormally high spot prices materially a	ffect the size of your prestricity	bill?
	A.11 /o	Count N=
Yes		
No		

Base: Respondents who were aware of abnormally hig' spot prices in June 2016 (n=19)

FREQUENCY OF PRICE SPIKE CAUSED BY AN OUTAGE

How often do you think such a price spike oused by an outag	e could occur?	
0.	All %	Count
Once a month	76	11-
Once a quarter		
Once every six months		
Once a year		
Once every couple of years		
Other		
Unsure		

Base: All respondents (n=27)

2.4 Monitoring the spot price

MONITOR PRICE PAID FOR ELECT	RICITY			
Does your business monitor the spot	price?/ Do you n	nonitor the price	you pay for elec	tricity?
	Business customers All %	Business customers Count N=	Residential customers All %	Pesidontial cu. tomers Count N=
Base n=	27	27	523	523
Yes				
No				
Unsure				
Base: All respondents			2	

FREQUENCY OF MONITORING PRICE PAID FOR ELECTR'

And how often does your business monitor the spot price? And how often do you monitor the price you pay – around about...?

	Business customers All %	Lusiness customers Count N=	Residential customers All %	Residential customers Count N=
Base n=				
Constantly				
Every half hour				
Every hour	$\overline{7}$			
Every couple of hours				
Every half day				
Every day				
Every couple of days				
Every week				
Every fortnight				
Every month				
Other				

Base: Respondents who monitor the price their business pays/ Respondents who monitor the price their household pays

WAYS OF MONITORING THE SPOT PRICE

Does your business monitor the spot price in any of the follow	ving ways?	
	All %	Count N-
Notice from retailer		
5-minute real time prices		
Phone		
Pre-dispatch prices (PRS—the price responsive schedule)		
Newsletter		
None of the above		

Base: Respondents who monitor the price their business pays (n= Note: Multiple response question

MONTHLY BILL

Approximately how much was your la	test monthly bill?	
	All %	Count N=
Less than \$500		
\$500- \$4,999		
\$5,000 - \$19,999		
\$20,000- \$99,999		
Over \$100,000		
Base: All respondents (n=27)	0	

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NOTICE OF HIGH SPOT PRICES

If spot prices were 100 times higher than average – how mureceive?	ich notice would y	you expect to
	All	Count
	%	N=
Advanced notice of 24 hours		
Advanced notice of 18 hours		
Advanced notice of ?? h. urs		
Advanced notice of Chours		
Instantly (as soon as 'he price rises)		
Within 60 minutes or , igh prices occurring		
Within 1-6 hours of high prices occurring		
Within 6-12 hours		
12 hours or long or		
When your veckly bill		
No notil e		

Bas, All respondents (n=27)

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2.5 Responding to the spot price



Base: Respondents whose business has a plan for responding to high spot prices

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	S		
<i>Q</i>	UM	2	

ACTIONS TAKEN TO RESPOND TO HIGH SPOT PRICES

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You noted that your business has a plan to respond to high spot prices - what key actions does your business take?



Base: Respondents whose business has a plan for responding to high spot prices

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2.6 Demographics

DEMOGRAPHICS All % Coun % Which of the following describes the industry your business is in? Manufacturing Manufacturing Agriculture, Forestry and Fishing Information, Media and Telecommunications Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Gas and Warehousing Financial and Insurance Services Financial and Insurance Services Pantal Hiring, and Paol Estato Services Financial and Insurance Services
All % Which of the following describes the industry your business is in? Manufacturing Agriculture, Forestry and Fishing Information, Media and Telecommunications Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services Pontal Hiring, and Pool Estate Services
% 1/1 % 1/1 Which of the following describes the industry your business is in? 1/2 Manufacturing 1/2 Agriculture, Forestry and Fishing 1/2 Information, Media and Telecommunications 1/2 Electricity, Gas, Water and Waste Services 1/2 Retail Trade 1/2 Accommodation and Food Services 1/2 Transport, Postal and Warehousing 1/2 Financial and Insurance Services 1/2 Pental Hiring, and Peal Estate Services 1/2
Which of the following describes the industry your business is in? Manufacturing Agriculture, Forestry and Fishing Information, Media and Telecommunications Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services Pental, Hiring, and Peal Estate Services
Manufacturing Agriculture, Forestry and Fishing Information, Media and Telecommunications Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services Pental, Hiring, and Poal Estate Services
Agriculture, Forestry and Fishing Information, Media and Telecommunications Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services
Information, Media and Telecommunications Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services Pental Hiring, and Peal Estate Services
Electricity, Gas, Water and Waste Services Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services Reptal Hiring and Real Estate Services
Retail Trade Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services
Accommodation and Food Services Transport, Postal and Warehousing Financial and Insurance Services Poptal Hiring and Pool Estate Services
Transport, Postal and Warehousing Financial and Insurance Services
Financial and Insurance Services
Pontal Hiring and Poal Estate Services
Professional, Scientific and Technical Services
Other Services
How many people are employed by your business, including yourself?
Self-employed (Sole operator/work by myself)
1-5
6-9
10-19
20-49
50-99
100 or more
Which of the following regions best describes where you are answering the survey from?
Auckland Region
Canterbury Region
Wellington Region
Bay of Plenty Region
Taranaki Region
Tasman/Nelson Region
Waikato Region
Manawatu-Whanganui Region
Otago Region
Network (From Electricity provider)
VECT
СКНК
ORON
POCO
NELS
MPOW
HAWK
WAIK
ALPE
Multiple networks

Base: All rec ondents (n=27)

DEMOGRAPHICS (CONTINUED)		
	All %	Count N=
Retailer		
Flick Meridian Energy		
Mercury		
Contact Energy		
Base: All respondents (n=27)		
	6	0
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