

# Programme Review

The ENA residential segmentation was developed using actual usage data from participating EDBs.

This model has been converted to a predictive model that allows us to apply the segments to the entire NZ market.

Participating EDBs have received individual segment profile reports and ICP level segment ids so that they can align the segments to their customer base.

Insights HQ have been working with ENA since 2024 to build and update a residential segmentation for the NZ market. The solution has been developed and based around using geo-demographic (census) data and has been evolved over the last two years to the point that we now have a version of the segmentation for the entire NZ market based on the 2023 census data.

The segmentation solution uses a combination of electricity usage data (provided by EDBs) and Census data. The segmentation solution implemented for EA Networks is the standardised prediction model which has been established using the data provided by the early adopter EDBs. The model implemented is universally applied to all of the EDBs involved in this first phase of the project.

The usage data was aggregated at a customer level to a monthly and quarterly level (1 year's worth of data). Metrics were derived for average usage and variance in usage at an individual level. The usage data was then aggregated again to an SA1 level.

From Stats NZ / Census, the following variables were incorporated into the final segmentation solution:

#### Customer Need / Usage:

- Number of Rooms % of homes in SA1 with 8 or more rooms
- Power Usage Avg kWh usage over the last year

#### **Ability to Pay:**

- Deprivation Index (standardised Stats NZ metric showing relative SES of SA1)
- Personal Income (% \$70k+)
- FT Employment % of working age individuals working full time

# **Key Deliverables**

The segmentation solution has been delivered to the participating EDBs at an ICP level allowing them to link the segments to their own customer base.

Some EDBs have already been using the segmentation solution in their own insights programmes – eg., Vector has profiled the segments using transactional data and survey results.

Going forward we can evolve this segmentation solution based on feedback from EDBs and the ENA and any new data that becomes available.

The Residential segmentation project has been going since 2024 and has produced a number of key deliverables. The project has used an ongoing approach where interim results are fed back to the ENA and presented at various workshops / FNF sessions. The feedback provided in these sessions were incorporated into the evolving work.

Since the start of the project, we have delivered:

- Version 1 Model 2018 Census Based: 15 participating EDBs
  - Represents over 65% of the SA1s in NZ where the SA1s has more than 10 households
  - Segmentation extends to ICP level resulting in over 80% of households in scope (where the SA1has more than 10 households)
- Version 1 Model 2018 Census Based: National Propensity Model
  - A propensity model to estimate the power usage in the remaining SA1 areas so that the segmentation model could be applied.
  - The model was then compared against the actual results where we had the data from the EDBs -80+% accuracy for the EDBs compared
- Version 1 Model 2023 Census Based: National Propensity Model
  - The 2018 Census predictive model converted to the updated 2023 Census data
- ENA New Energy Concepts POC Survey: August 2025
  - IHQ/ENA worked together to develop a survey to cover NZ attitudes towards different energy saving concepts (N=1074)
  - Where data allows, survey results were linked to ENA Residential segments to allow for additional profiling of the segmentation solution

This report provides an overview of the segmentation solution using the NZ national model and a segment specific view of the ENA New Energy Concepts Survey results. The ENA has already received a separate report for the survey results so in this report we will focus on just the segment profiles.

# Overall Segmentation Profile – Ability to Pay vs Customer Needs (Usage)

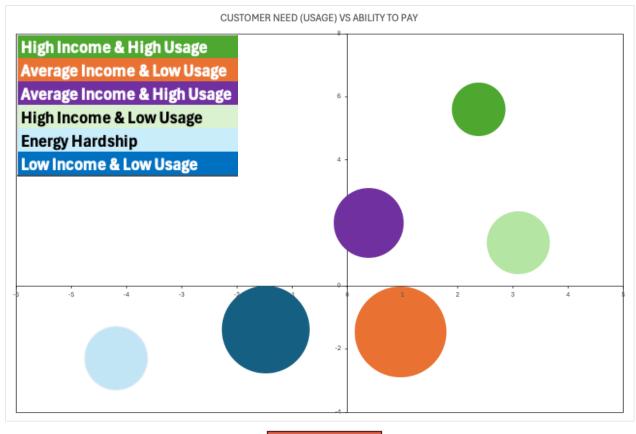
(Usage)

**Customer Needs** 

The graph to the right shows where the six segments sit in the 'Ability to Pay' vs 'Customer Need' spectrum. The size of the circle indicates the size of the segment (% of SA1's).

The High Income & High Usage and High Income & Low Usage segments are skewed towards having more ability to pay. The High Income & High Usage segment skews strongly to having more 'customer needs' (using more power, larger houses, etc).

The Energy Hardship and Low Income & Low Usage segments are clearly the customers who are going to struggle the most to pay their power bills.



Ability to Pay

### Segment Comparisons -

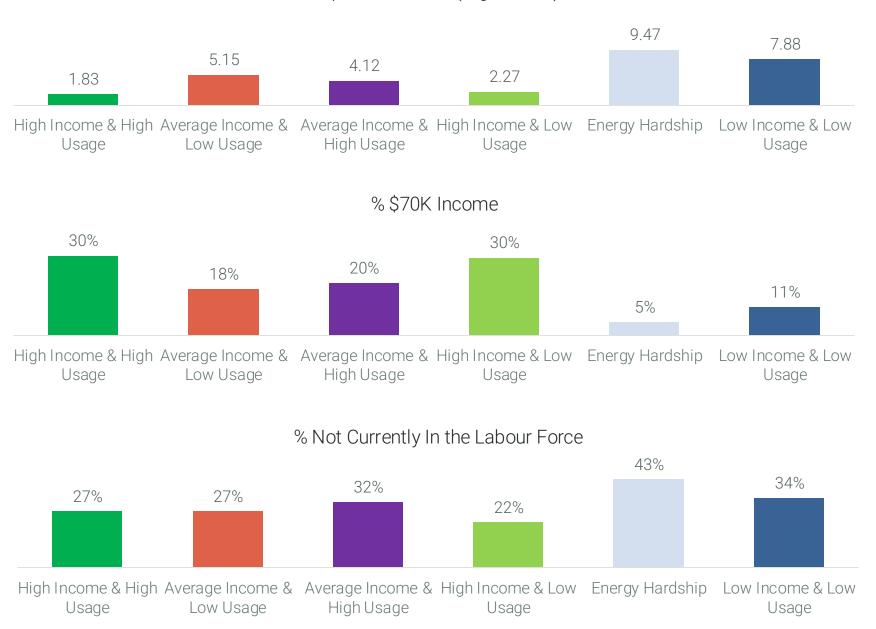
### **Ability to Pay**

The two low-income segments (Energy Hardship and Low Income & Low Usage) consistently show lower Socio-Economic results – higher Deprivation Index scores, lower % high personal income, and higher % of people not in the workforce.

On the flip side of the coin, the two upper income segments (High Income & High Usage and High Income & Low Usage), have the lowest Deprivation Index scores, higher personal incomes, and more people in the workforce.

The other two segments fall consistently in the middle of the pack for these income related metrics.

#### Deprivation Index (High is bad)



### Segment Comparisons –

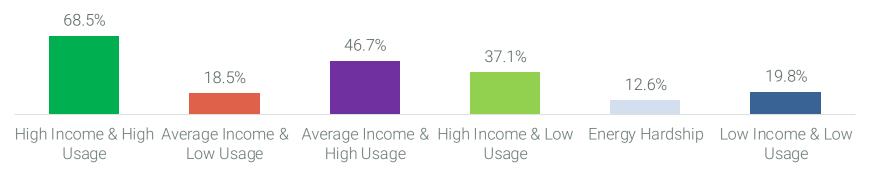
# Customer Need (Usage)

Looking at the usage profile, we can see the *High Income & High Usage* leads by a margin in terms of usage and size of home.

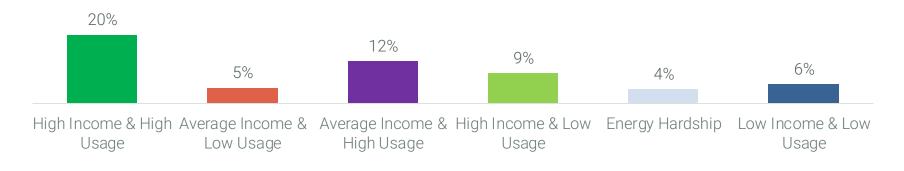
On the opposite side of the frame, Average Income & Low Usage, Energy Hardship, and Low Income & Low Usage segments have much smaller homes and generally use less power.

The Average Income & High Usage and High Income & Low Usage segments sit firmly in the middle of the pack.

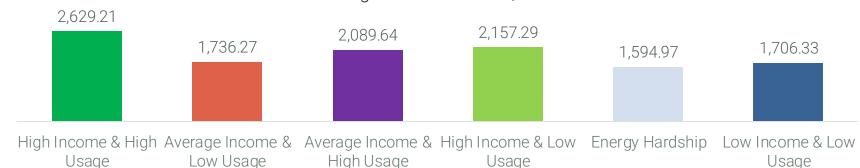
#### % Homes With 8 or More Rooms



#### % Homes with 5 or More Bedrooms



#### Average kWh Used Per Quarter



# Upper North Island

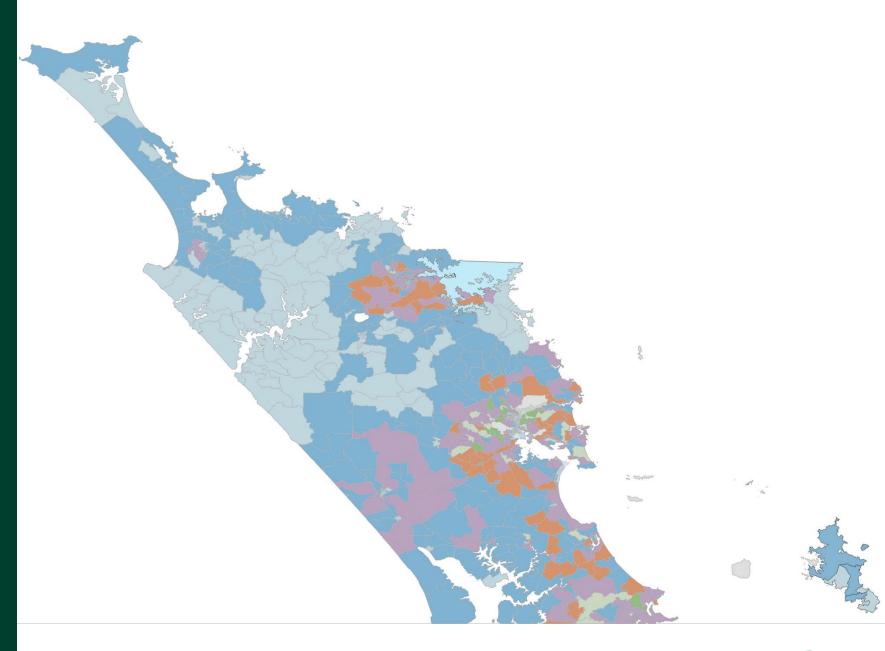
High Income & High Usage

Average Income & Low Usage

Average Income & High Usage

High Income & Low Usage

**Energy Hardship** 





# **Auckland Region**

High Income & High Usage
Average Income & Low Usage

Average Income & High Usage

High Income & Low Usage

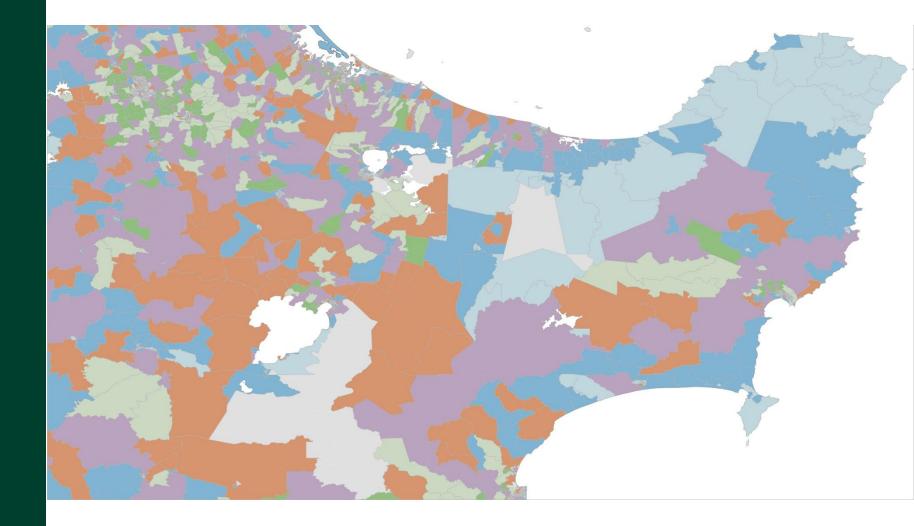
**Energy Hardship** 





### Mid-North Island - East Coast

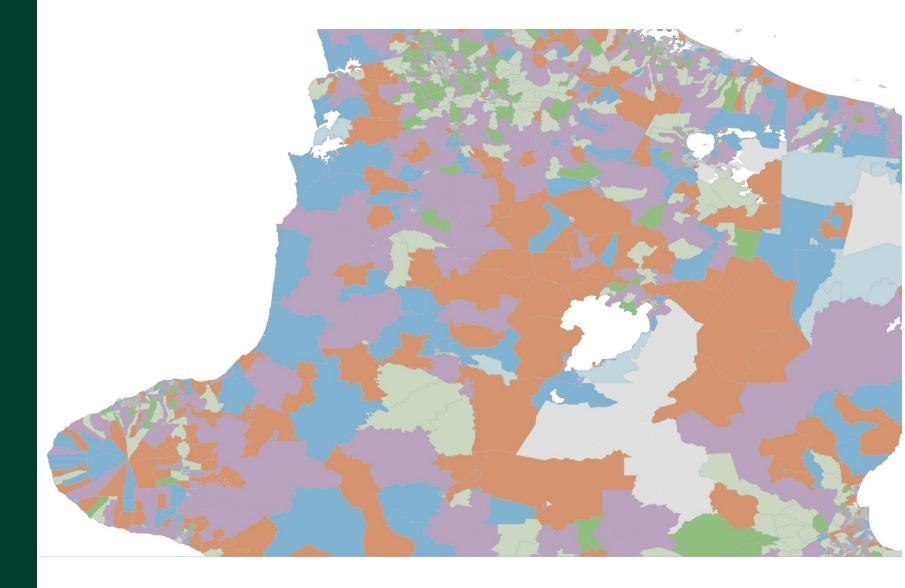
High Income & High Usage
Average Income & Low Usage
Average Income & High Usage
High Income & Low Usage
Energy Hardship
Low Income & Low Usage





### Mid-North Island - West Coast

High Income & High Usage
Average Income & Low Usage
Average Income & High Usage
High Income & Low Usage
Energy Hardship
Low Income & Low Usage





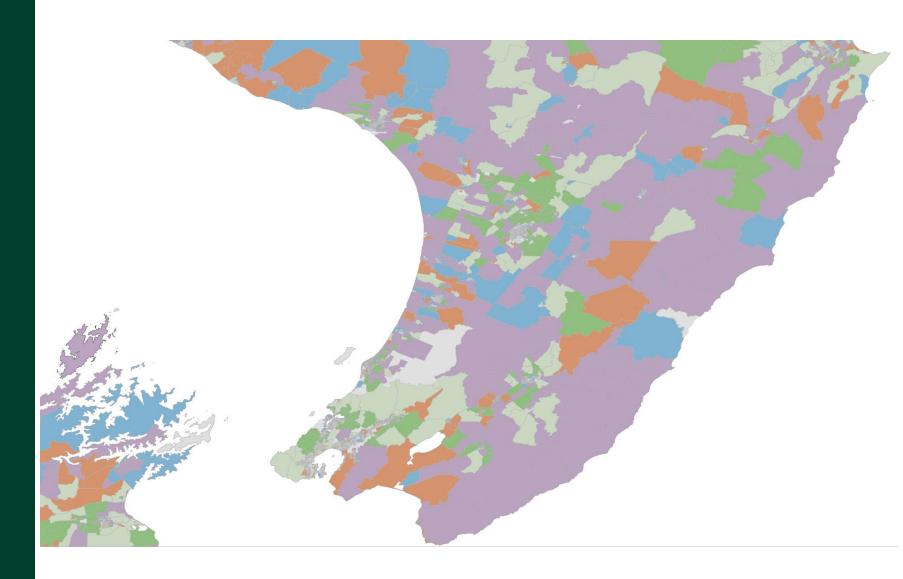
# Wellington Region

High Income & High Usage
Average Income & Low Usage

Average Income & High Usage

High Income & Low Usage

**Energy Hardship** 





# Upper South Island

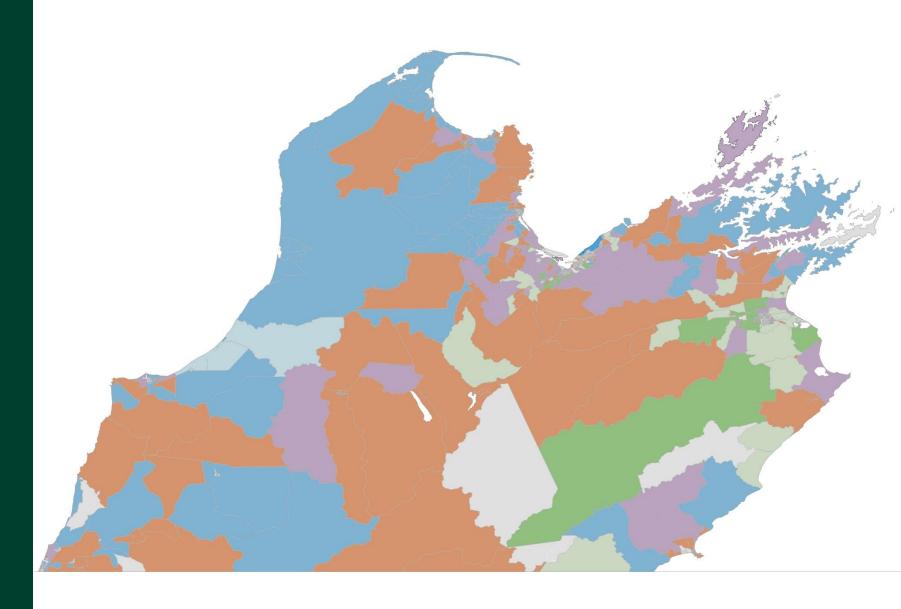
High Income & High Usage

Average Income & Low Usage

Average Income & High Usage

High Income & Low Usage

**Energy Hardship** 





# Canterbury Region

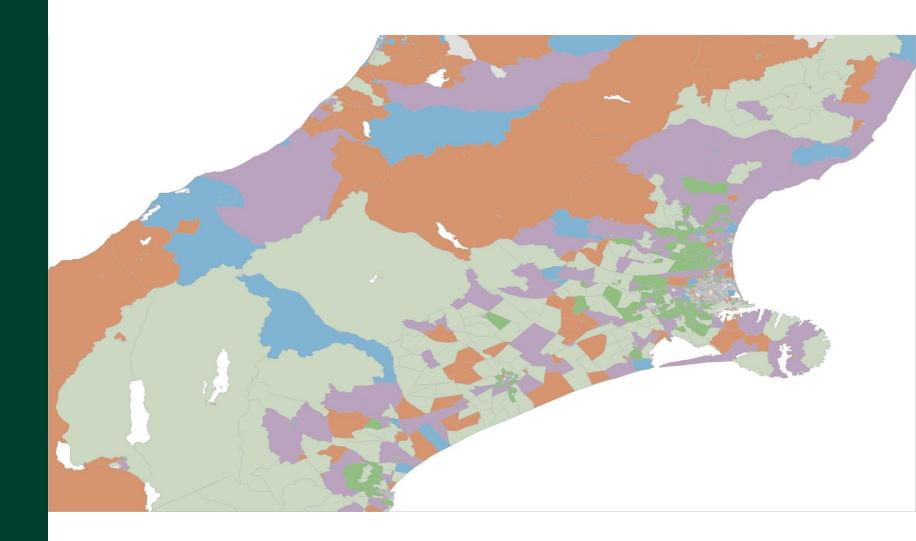
High Income & High Usage

Average Income & Low Usage

Average Income & High Usage

High Income & Low Usage

**Energy Hardship** 





# Lower South Island

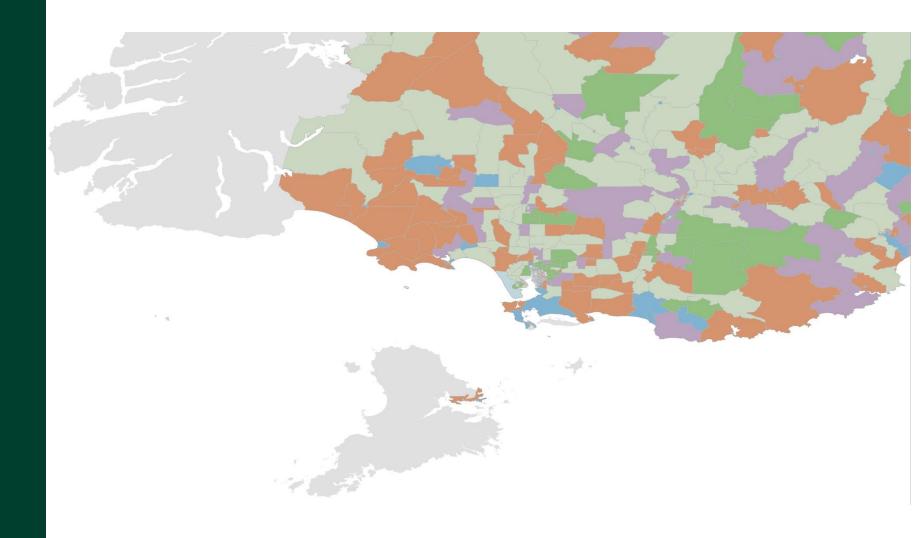
High Income & High Usage

Average Income & Low Usage

Average Income & High Usage

High Income & Low Usage

**Energy Hardship** 





### **EDB Comparisons**

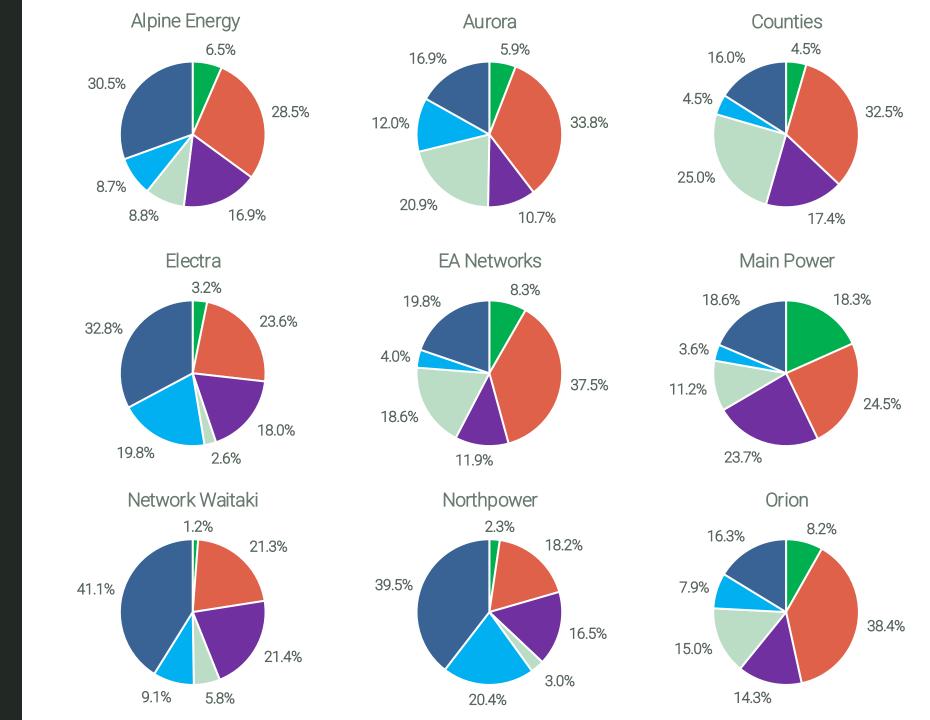
High Income & High Usage
Average Income & Low Usage
Average Income & High Usage
High Income & Low Usage
Energy Hardship
Low Income & Low Usage

The results for the 15 different EDBs are shown in the graphs over the next two pages.

The participating EDBs demonstrate a range of results reflective of the NZ population.

For example, the High Income & High Usage segment ranges from a high point of 18% of Main Power's base to a low of 0% for Top Energy.

Similarly, the *High Income & Low Usage* segment varies from a high point of 25% for Counties vs 1-2% for Top Energy and The Lines.



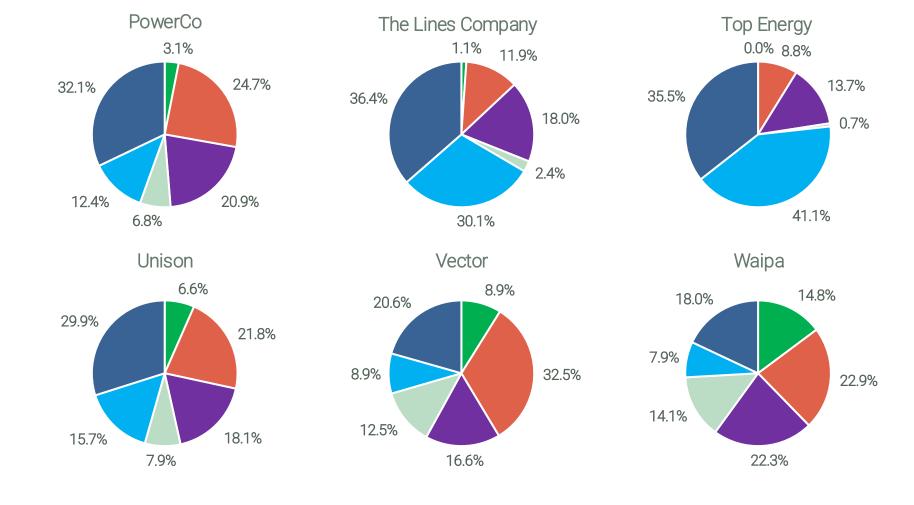
### **EDB Comparisons**

High Income & High Usage
Average Income & Low Usage
Average Income & High Usage
High Income & Low Usage
Energy Hardship
Low Income & Low Usage

Similarly, the segmentation does an effective job of identifying EDBs with bigger "Power Poverty" customer bases.

In particular, we can see the results for Top Energy and The Lines Company point to challenges for those regions of the country and those EDBs.

For Top Energy, 41% of their base fall into the *Energy Hardship* segment. For The Lines Company, that segment represents over 30% of the base. Both companies have over 35% of their base fall ingo the *Low Income & Low Usage* segment.



# **EDB Comparisons: Segment Distributions - %'s**

SA1 Level															
	Alpine				EA	Main	Network				The Lines	TOP			
Segments	Energy	Aurora	Counties	Electra	Networks	Power	Waitaki	Northpower	Orion	PowerCo	Company	Energy	Unison	Vector	Waipa
High Income & High Usage	7.2%	7.0%	18.5%	4.1%	8.0%	20.6%	1.5%	2.3%	8.3%	4.5%	1.4%	0.0%	6.5%	9.7%	14.6%
Average Income & Low Usage	27.6%	32.7%	16.6%	22.1%	36.4%	21.6%	17.6%	18.9%	38.1%	21.1%	11.2%	7.7%	21.7%	30.1%	27.2%
Average Income & High Usage	18.8%	11.4%	18.9%	19.8%	12.4%	27.4%	23.5%	15.6%	14.2%	23.3%	21.0%	13.0%	17.4%	16.8%	21.3%
High Income & Low Usage	9.0%	19.8%	20.7%	3.2%	20.0%	10.2%	7.4%	3.4%	13.5%	7.1%	3.7%	0.8%	7.5%	12.5%	13.2%
Energy Hardship	8.2%	12.6%	6.9%	18.7%	3.1%	3.3%	8.1%	22.0%	8.2%	12.7%	27.1%	45.6%	15.7%	9.3%	5.9%
Low Income & Low Usage	29.2%	16.4%	18.5%	32.0%	20.0%	16.8%	41.9%	37.8%	17.7%	31.2%	35.5%	32.9%	31.3%	21.5%	17.9%
						ICP L	evel								
	Alpine				EA	Main	Network				The Lines	TOP			
Segments	Energy	Aurora	Counties	Electra	Networks	Power	Waitaki	Northpower	Orion	PowerCo	Company	Energy	Unison	Vector	Waipa
High Income & High Usage	6.5%	5.9%	16.8%	3.2%	8.3%	18.3%	1.2%	2.3%	8.2%	3.1%	1.1%	0.0%	6.6%	8.9%	14.8%
Average Income & Low Usage	28.5%	33.8%	16.1%	23.6%	37.5%	24.5%	21.3%	18.2%	38.4%	24.7%	11.9%	8.8%	21.8%	32.5%	22.9%
Average Income & High Usage	16.9%	10.7%	19.2%	18.0%	11.9%	23.7%	21.4%	16.5%	14.3%	20.9%	18.0%	13.7%	18.1%	16.6%	22.3%
High Income & Low Usage	8.8%	20.9%	21.4%	2.6%	18.6%	11.2%	5.8%	3.0%	15.0%	6.8%	2.4%	0.7%	7.9%	12.5%	14.1%
Energy Hardship	8.7%	12.0%	5.6%	19.8%	4.0%	3.6%	9.1%	20.4%	7.9%	12.4%	30.1%	41.1%	15.7%	8.9%	7.9%
Low Income & Low Usage	30.5%	16.9%	20.7%	32.8%	19.8%	18.6%	41.1%	39.5%	16.3%	32.1%	36.4%	35.5%	29.9%	20.6%	18.0%

# **EDB Comparisons: Segment Distributions - Counts**

SA1 Level - Counts																
Segments	Alpine	Aurora	Counties	Electra	EA Networks	Main Power	Network Waitaki	Northpower	Orion	PowerCo.	The Lines Company	TOP	Unison	Vector	Waipa	Totale
ē	Energy											Energy			-	Totals
High Income & High Usage	27	80	113	24	18	99	2	16	225	72	3	0	98	852	52	1,681
Average Income & Low Usage	104	372	101	130	82	104	24	133	1,027	334	24	29	327	2,638	97	5,526
Average Income & High Usage	71	130	115	116	28	132	32	110	384	369	45	49	262	1,473	76	3,392
High Income & Low Usage	34	225	126	19	45	49	10	24	364	113	8	3	114	1,097	47	2,278
Energy Hardship	31	143	42	110	7	16	11	155	221	201	58	172	237	816	21	2,241
Low Income & Low Usage	110	186	113	188	45	81	57	266	478	494	76	124	472	1,881	64	4,635
Total	377	1,136	610	587	225	481	136	704	2,699	1,583	214	377	1,510	8,757	357	19,753
						ICP Le	evel - Coun	ts								
	Alpine				EA	Main	Network				The Lines	TOP				
Segments	Energy	Aurora	Counties	Electra	Networks	Power	Waitaki	Northpower	Orion	PowerCo	Company	Energy	Unison	Vector	Waipa	Totals
High Income & High Usage	1,751	4,763	7,059	1,365	1,272	6,818	128	1,217	16,558	4,484	133	0	6,471	49,532	3,497	105,048
Average Income & Low Usage	7,670	27,480	6,766	9,965	5,776	9,149	2,263	9,574	77,684	35,308	1,421	2,522	21,327	180,784	5,413	403,102
Average Income & High Usage	4,548	8,671	8,056	7,613	1,826	8,849	2,267	8,658	29,021	29,882	2,148	3,913	17,734	92,213	5,258	230,657
High Income & Low Usage	2,371	16,979	8,946	1,098	2,864	4,186	617	1,595	30,375	9,728	284	207	7,755	69,342	3,322	159,669
Energy Hardship	2,343	9,756	2,330	8,357	612	1,334	968	10,709	15,967	17,751	3,587	11,725	16,313	49,270	1,869	152,891
Low Income & Low Usage	8,218	13,767	8,688	13,888	3,058	6,934	4,361	20,746	32,932	45,967	4,331	10,131	29,200	114,592	4,238	321,051
Total	26,901	81,416	41,845	42,286	15,408	37,270	10,604	52,499	202,537	143,120	11,904	28,498	98,800	555,733	23,597	1,372,418





# Overall Summary of ENA Energy Concepts Survey

#### Affordability is paramount

Cost pressures dominate consumer sentiment, especially among renters and lower-income. Fixed charges and seasonal bill spikes are key pain points.

#### Consumers are engaged but constrained

Most people actively manage energy use through behavioural changes and appliance upgrades. However, adoption of smart technologies like HEMS remains low due to cost, complexity, and lack of awareness.

#### Solar and EV interest is strong but uneven

Solar ownership sits at 10%, with high satisfaction and reported savings. Yet barriers such as upfront cost, housing type, and uncertainty about ROI limit broader uptake.

EV ownership is growing, with 86% of users charging at home.

#### Demographics shape adoption of new technologies

Younger, higher-income, and mortgage-holders are more open to new technologies. Older and retired individuals are less likely to adopt due to perceived complexity and limited benefit.

#### Information access shapes decisions

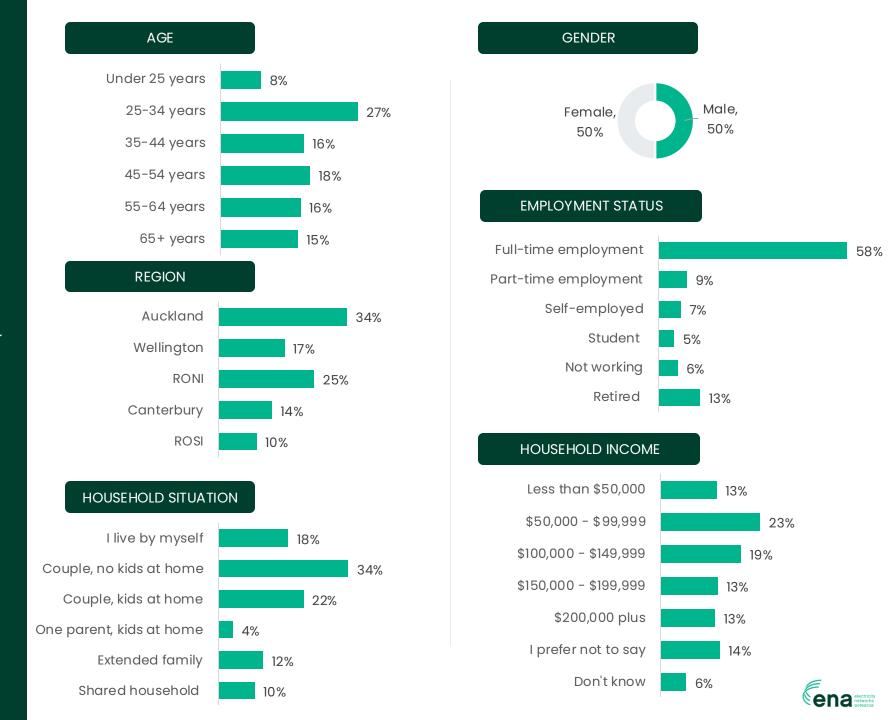
Consumers rely heavily on digital sources and peer networks for energy-related decisions. This underscores the importance of clear, accessible, and trusted information to support informed choices.



# Nationally representative sample

In August 2025, we surveyed **N=1051** people, representative of New Zealanders based on age, gender and region.

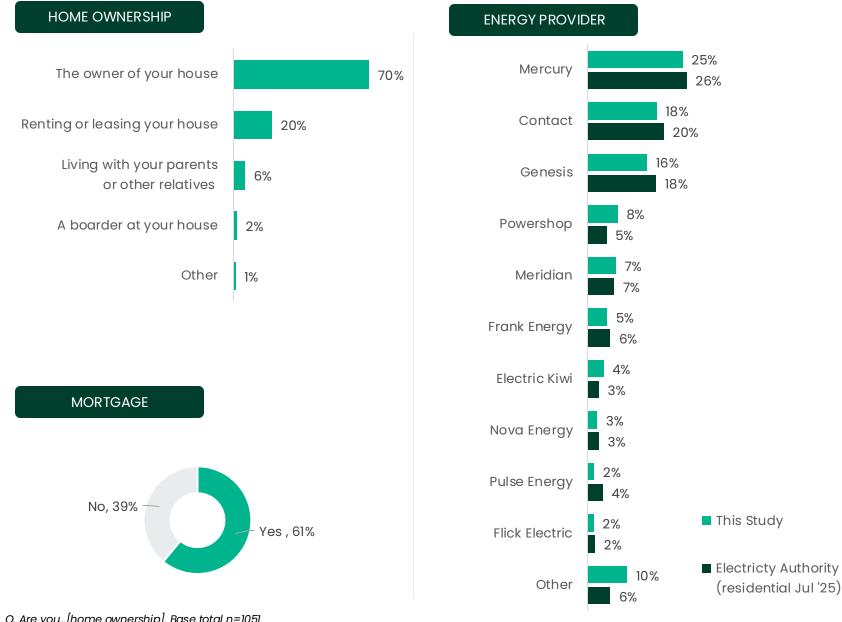
On a sample size of 1051 the margin of error is  $\pm -3\%$ .



# Good representation of electricity providers

70% owned their own homes (61% with a mortgage).

Electricity providers used align to Electricity Authority data.



Q. Are you...[home ownership]. Base total n=1051



Q. Do you have a mortgage on your home. Base homeowners n=837

Q. When it comes to who provides electricity to the home you live in the most, which of the following companies do you use for your power? Base total n=1051

# Cost is the key power concern

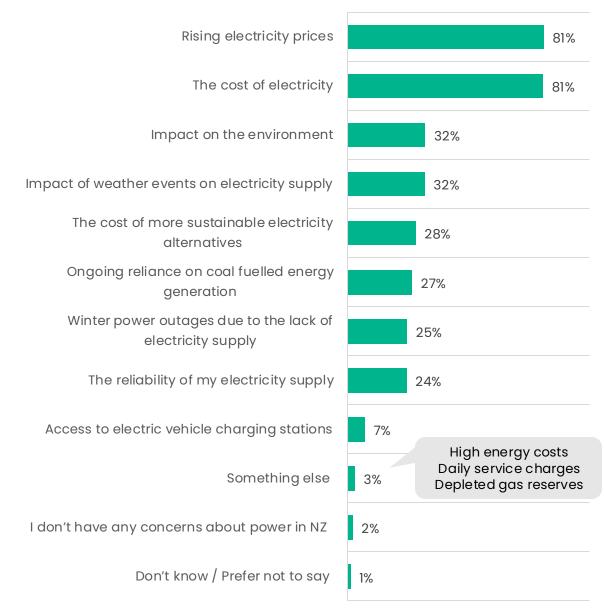
Cost is the dominant concern for New Zealanders when it comes to energy. This underscores the importance of affordability in energy-related decision-making and policy.

Cost is of more concern among low income and renters.

Under 35 YO's were more concerned with sustainability, coal use and environment.

High income individuals were more likely to mention environment and EV charging stations.

#### **ENERGY CONCERNS**





# **Energy Concern**

### **Segment Differences**

The respondents who are in the High Income & High Usage segment are less concerned across the board with the exception for 'the cost of electricity'.

The respondents from the low usage segments are more likely to be over-represented for all of the energy concerns EXCEPT for the 'the cost of electricity'.

The Energy Hardship respondents much more concerned across the board with the Low Income & Low Usage respondents being more concerned than average except for reliance on coal and the impact on the environment.

#### **ENERGY CONCERNS**

Winter power outages due to the lack of electricity supply

Impact of weather events on electricity supply

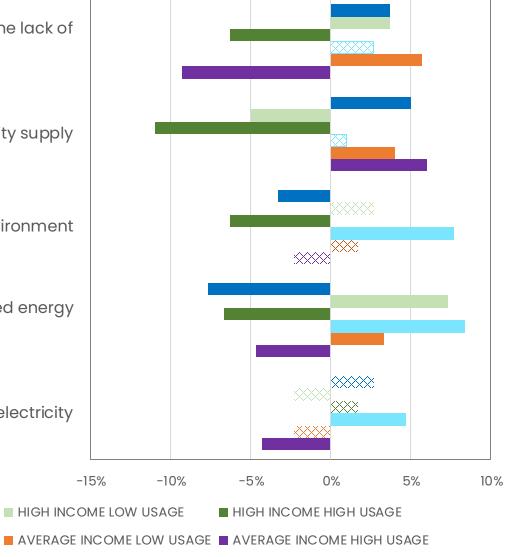
Impact on the environment

Ongoing reliance on coal fuelled energy generation

LOW INCOME LOW USAGE

ENERGY HARDSHIP

The cost of electricity



% higher or lower than the overall average



# Actions to reduce cost have the highest agreement

Most people express concern about energy costs and show a strong desire to control their energy use. There is also openness to adopting smart technologies to manage consumption.

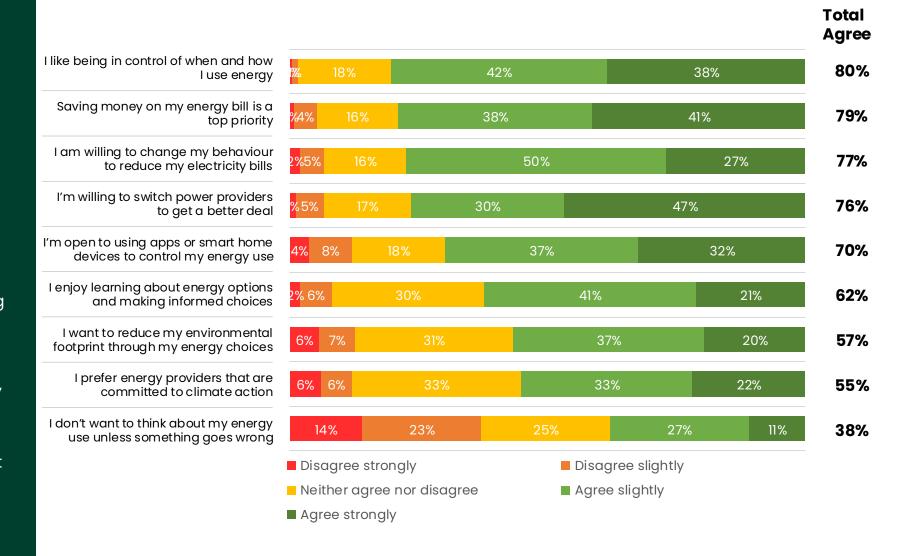
Cost-conscious behaviours (e.g. switching providers, changing usage habits) are more common among younger, higherincome, and mortgage-holders.

Smart technology adoption is favoured by under-35s and high-income earners; less so by older people.

Environmental values are more prominent among women and those in shared households.

Only thinking about energy when issues arise is more common among under 35s and Aucklanders.

#### **ENERGY ATTITUDES**





# **Energy Attitudes**

### **Segment Differences**

The respondents from the High Income & High Usage segment are much more engaged across the board – much less likely to say they 'don't want to think about their energy unless something goes wrong'.

Interestingly, the respondents from the High Income & Low Usage segment are not particularly focused on saving money or even thinking about their energy use.

Respondents from the *Energy Hardship* segment are slightly more likely to want to save money but do not appear to be that engaged in proactively managing their energy use.

#### **ENERGY ATTITUDES**

I enjoy learning about energy options and making informed choices

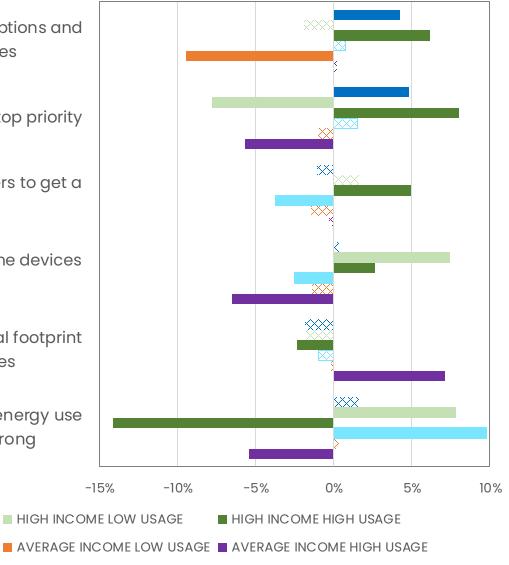
Saving money on my energy bill is a top priority

I'm willing to switch power providers to get a better deal

I'm open to using apps or smart home devices to control my energy use

I want to reduce my environmental footprint through my energy choices

I don't want to think about my energy use unless something goes wrong



% higher or lower than the overall average



ENERGY HARDSHIP

LOW INCOME LOW USAGE

# Home renovations or appliance upgrades

Many people have taken steps to reduce energy usage through renovations or appliance upgrades. These actions reflect a proactive approach to energy efficiency.

Renovations and upgrades were more common among over 65 year olds. i.e. homeowners... but also those with higher bills.

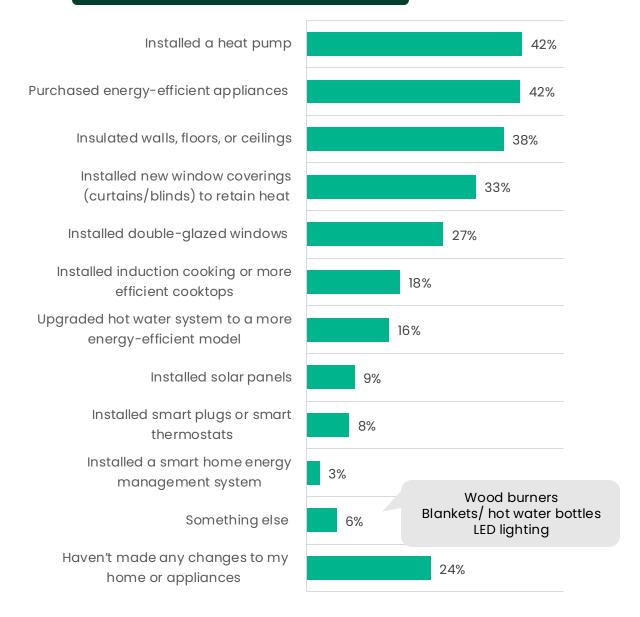
45-64 YO's were more likely to have bought new appliances, smart plugs, insulated, and double glazed.

Double glazing was more common in the South Island.

Meridian customers were more likely to have actioned many of these things.

Low income and renters were less likely to have done any of these.

#### ENERGY SAVING RENOVATIONS/UPGRADES



Q. Have you done any of the following home renovations or appliance upgrades to reduce energy usage in your home?

Base total n=1051



# Renovations / **Upgrades**

### **Segment Differences**

The respondents from the High Income & High Usage segment are much more likely to have invested money into more advanced energy saving renovations / upgrades.

Average Income & High Usage respondents are also more likely to be investing in renovations upgrades to reduce their energy costs.

Respondents from the two lower income segments are much more likely to have added insulation to the walls, floors or ceilings.

#### ENERGY SAVING RENOVATIONS/UPGRADES

Installed double-glazed windows Insulated walls, floors, or ceilings

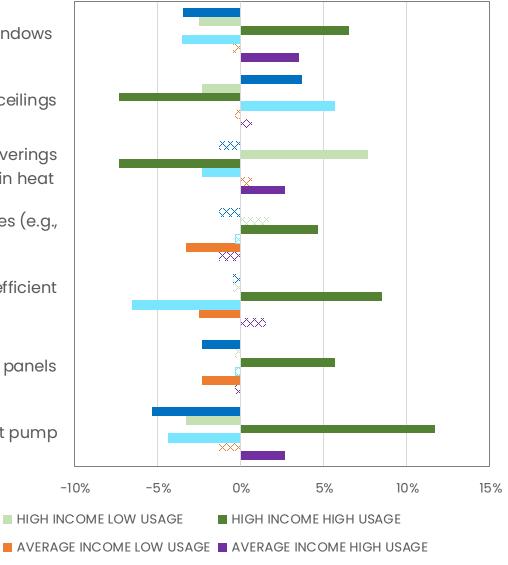
Installed new window coverings (curtains/blinds) to retain heat

Purchased energy-efficient appliances (e.g., fridge, washing machine)

Installed induction cooking or more efficient cooktops

Installed solar panels

Installed a heat pump



% higher or lower than the overall average

■ HIGH INCOME LOW USAGE LOW INCOME LOW USAGE ENERGY HARDSHIP

Q. Have you done any of the following home renovations or appliance upgrades to reduce energy usage in your home?



# Energy reducing actions

Common energy-saving behaviors include turning off lights, air-drying clothes, unplugging devices and using energy efficient lights. These everyday actions demonstrate widespread engagement with energy conservation (and cost saving).

Turning off lights is more common among women, South Islanders, and solo parents.

Air drying clothes is more likely among 55+, South islanders, and solo parents.

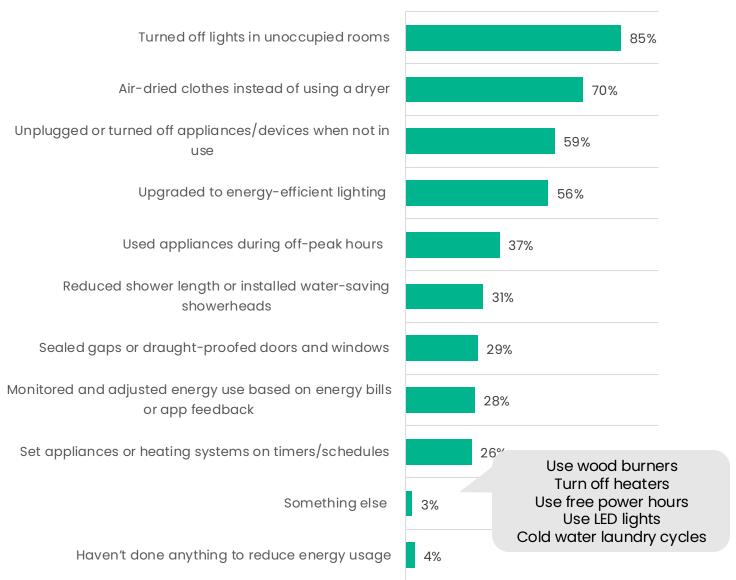
Upgrading lights is more common among over 45s, and home owners.

Using appliances in off peak is more prevalent among South Islanders, Contact, Electric Kiwi and Powershop customers.

Reducing shower length is favoured by over 65s, lower income (<\$99k) and solo parents.

Adjusting use based on bills or apps is more common among under 35s.

#### **ENERGY REDUCING ACTIONS**



Q. Have you done any of the following home renovations or appliance upgrades to reduce energy usage in your home?

Base total n=1051



# **Energy Reducing Actions**

### **Segment Differences**

While the respondents from the High Income & High Usage segment were much more likely to be willing to spend money to save money on power costs, they are much less likely to make basic chances to their behaviour.

The High Income & Low Usage segment respondents on the other hand are much more likely to be changing their behaviour to reduce their power usage.

The *Energy Hardship* respondents were much more likely to be turning off appliances when not in use, turning off lights, etc.

#### **ENERGY REDUCING ACTIONS**

Monitored and adjusted energy use based on energy bills or app feedback

Turned off lights in unoccupied rooms

Used appliances during off-peak hours

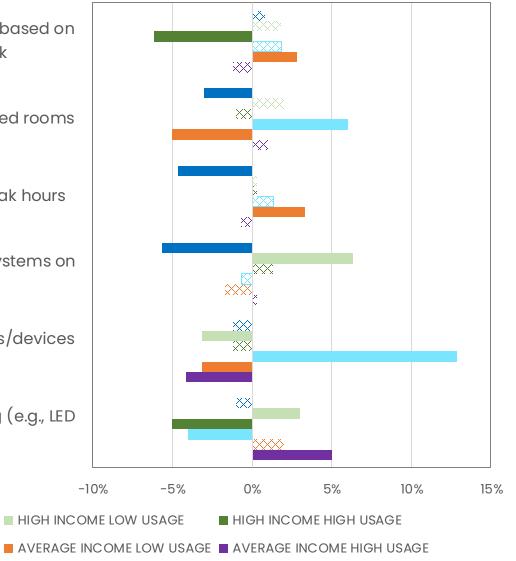
Set appliances or heating systems on timers/schedules

Unplugged or turned off appliances/devices when not in use

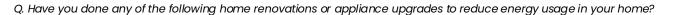
Upgraded to energy-efficient lighting (e.g., LED bulbs)

LOW INCOME LOW USAGE

ENERGY HARDSHIP



% higher or lower than the overall average





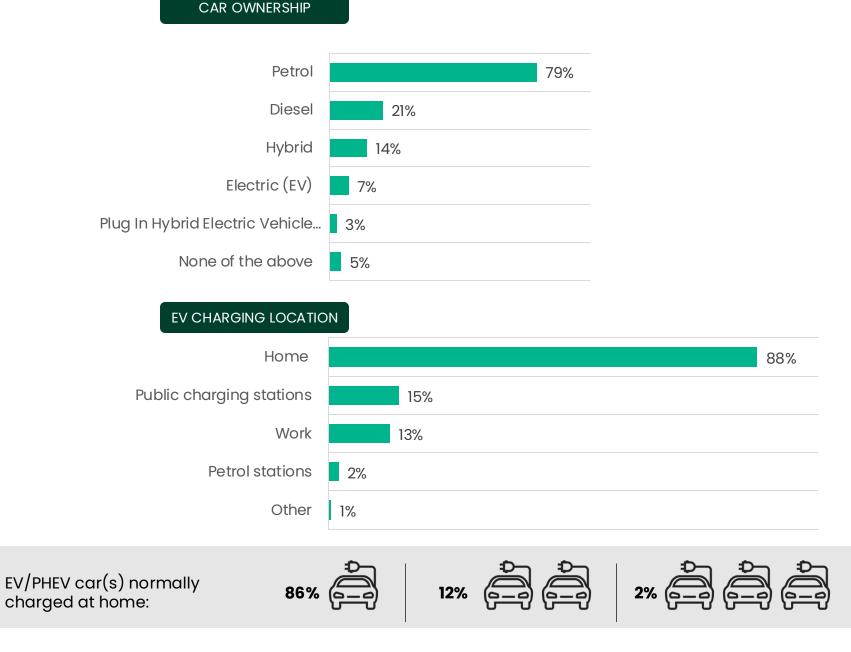
# 7-10% EV penetration with high at home charging

Electric vehicle (EV) adoption is growing, with 7% of people using EVs and 3% using plug-in hybrids.

Most EV users charge at home, highlighting the importance of residential charging infrastructure.

EV adoption increases with income.

Not surprisingly the *High Income & High Usage* segment respondents were more likely to have Evs.



- Q. Which of the following vehicle types do members of your household currently use for personal or business purposes? Base total n=1051
- Q. Where do you normally charge your EV/PHEV car(s)? Base Hybrid and Electric Vehicle Users n=105
- Q. How many EV/PHEV car(s) do you normally charge at home? Base Hybrid and Electric Vehicle Users charging at home n=92



# Over half of nonowners would consider an EV/PHEV

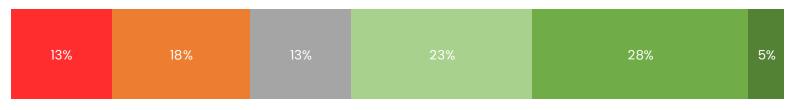
Among non-EV owners, 56% would consider purchasing an EV or PHEV in the future. This suggests strong potential for growth in the electric vehicle market.

High income, younger and those with a mortgage were more likely to consider EVs.

High Income & Low Usage segment respondents are more likely to be strongly considering getting an EV as their next vehicle.

#### EV CONSIDERATION





- I am definitely going to buy an electric vehicle or Plug In Hybrid Electric Vehicle
- Would definitely consider an electric vehicle or Plug In Hybrid Electric Vehicle
- Would probably consider
- Not sure
- Probably would NOT consider
- Definitely would NOT consider



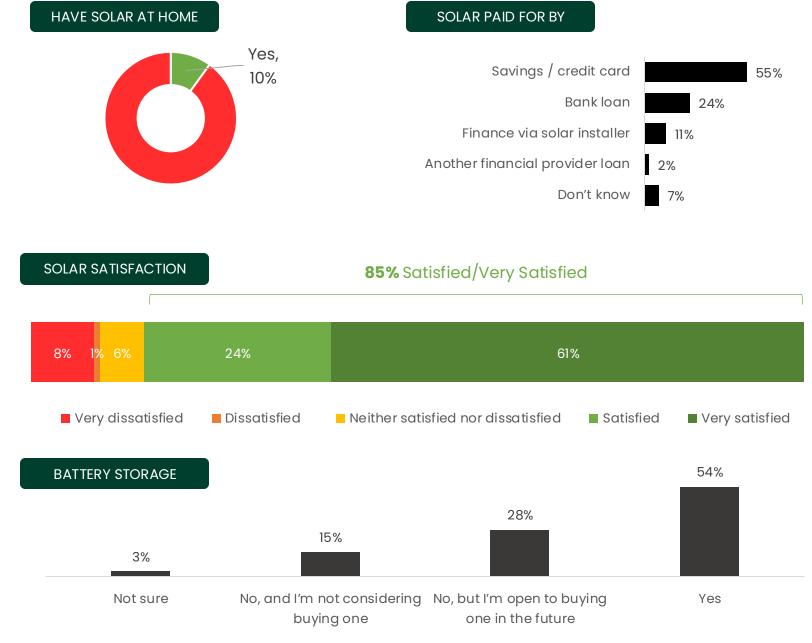
# 10% had solar at home. Most are satisfied.

10% of Kiwis have solar panels at home, and satisfaction is high at 85%.

Over half of solar customers had batteries and a further quarter were open to buying them.

Solar was more common among over 65s.

While the High Income & High Usage segment respondents were no more likely than the respondents from the other segments to have Solar installed currently, they are much more likely to have Battery Storage.



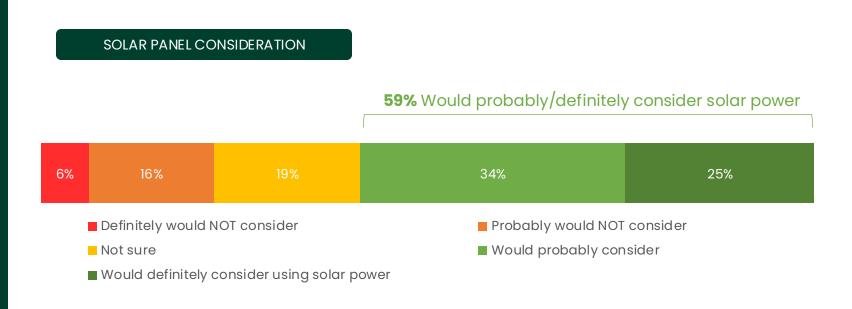
- Q. Do you have solar panels at your home? Base n=1051
- Q. How did you pay for your solar panels? Base n=109
- Q. Overall how satisfied are you with your solar panels? Base n=109
- Q. Do you have battery storage at home? Base n=109



### 6 in 10 nonowners would consider solar in the future

Interest in solar is strong, especially among under 55s, South Islanders, high income and homeowners.

The High Income & High Usage segment respondents are more likely to be strongly considering getting Solar Panels installed in the near future.

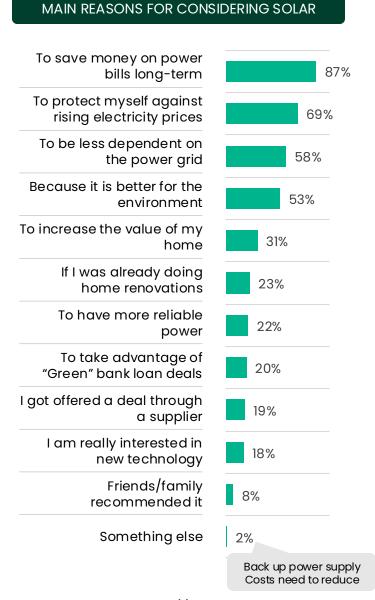


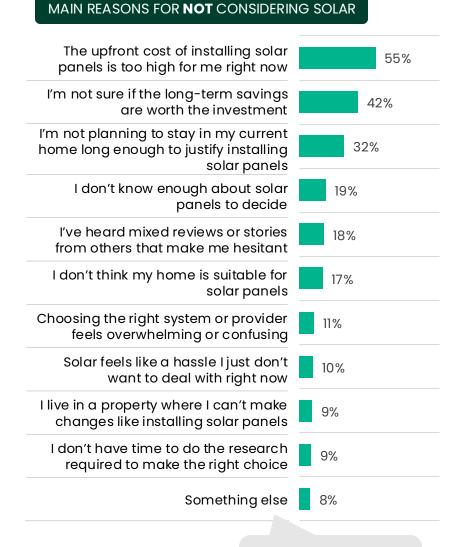


# Solar panel incentives and barriers

The main reasons for considering solar include cost savings and environmental benefits.

Main barriers include upfront costs and uncertainty about return on investment.





High upfront costs Low payback Apartment living Scepticism on performance



Q. What are the main reason(s) you would consider installing solar panels at your home? Base n=408 Q. What are the main reason(s) you might not consider installing solar panels at your home? Base n=320

# **Considering Solar**

### **Segment Differences**

The High Income & High Usage respondents are generally below average for all considerations with the exception of protecting themselves against power costs and improving the value of their homes.

Interestingly, the Low Usage segment respondents are more likely to flag more environmental concerns than the other segment respondents.

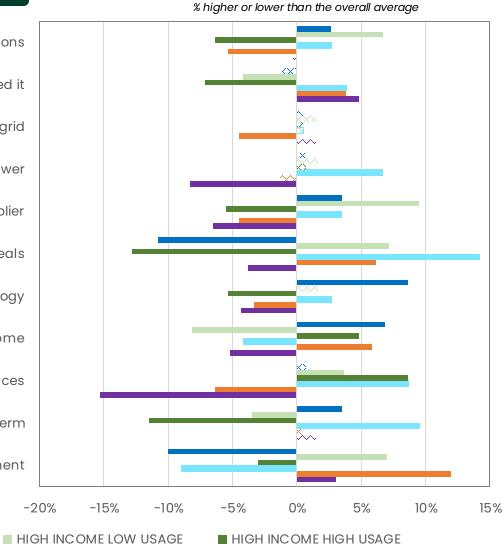
The Energy Hardship segment respondents are quite focused on the cost savings and taking advantage of green loans from their banks.

#### MAIN REASONS FOR CONSIDERING SOLAR

If I was already doing home renovations Friends/family recommended it To be less dependent on the power grid To have more reliable power I got offered a deal through a supplier To take advantage of "Green" bank loan deals I am really interested in new technology To increase the value of my home To protect myself against rising electricity prices To save money on power bills long-term Because it is better for the environment

LOW INCOME LOW USAGE

ENERGY HARDSHIP



■ AVERAGE INCOME LOW USAGE ■ AVERAGE INCOME HIGH USAGE

Q. What are the main reason(s) you would consider installing solar panels at your home?



### **NOT Considering** Solar

### **Segment Differences**

The High Income & High Usage segment respondents we significantly more likely to cite hearing mixed reviews from others as a key driver for hesitating to get solar installed.

Respondents from the Average Income & Low Usage and High Income & Low Usage segments were much more likely to say that they were not in a home that they could either install solar panels onto or were not going to be there long enough to make it worth while.

The Energy Hardship respondents either didn't have time to research or deal with the hassle of researching and selecting a solar option or were pretty confident that their home wasn't suitable.

#### MAIN REASONS FOR **NOT** CONSIDERING SOLAR

#### I don't have time to do the research required to make the right choice

Solar feels like a hassle I just don't want to deal with right

I've heard mixed reviews or stories from others that make me hesitant

I'm not planning to stay in my current home long enough to justify installing solar panels

> Choosing the right system or provider feels overwhelming or confusing

I don't know enough about solar panels to decide

I live in a property where I can't make changes like installing solar panels

I'm not sure if the long-term savings are worth the investment

The upfront cost of installing solar panels is too high for me right now

I don't think my home is suitable for solar panels (e.g., roof angle, shade, or size)

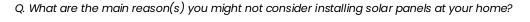


% higher or lower than the overall average

LOW INCOME LOW USAGE

■ HIGH INCOME LOW USAGE

ENERGY HARDSHIP

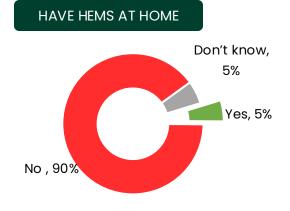


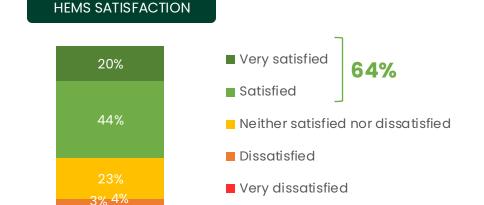


# 5% had a HEMS and 64% were satisfied with it

Ownership was driven by desire for information, control and cost savings.

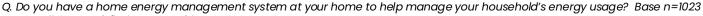
Not surprisingly, the respondents from the *High Income & High Usage* segment are much more likely to have an HEM at home currently.





#### MAIN REASONS FOR INSTALLATION

To see exactly how much energy my home is using 50% To save money by reducing how much energy my home... 46% To have more control over when and how my household... 44% To shift energy use to times when it is cheaper for my... 34% To use smart technology to run my home more efficiently 31% To identify energy-wasting habits or appliances in my... To take advantage of new 'Smart' appliances 25% To receive alerts or tips when my energy use is high 24% To reduce my household's environmental impact 23% To get the most out of my solar panels and/or home... To future-proof my home 20% Don't know 10% Included as part of Solar package Something else 6%



Q. Overall, how satisfied are you with your home energy management system? Base n=72



Q. What are the main reason(s) you have chosen to install an energy management system at your home? Base n=72

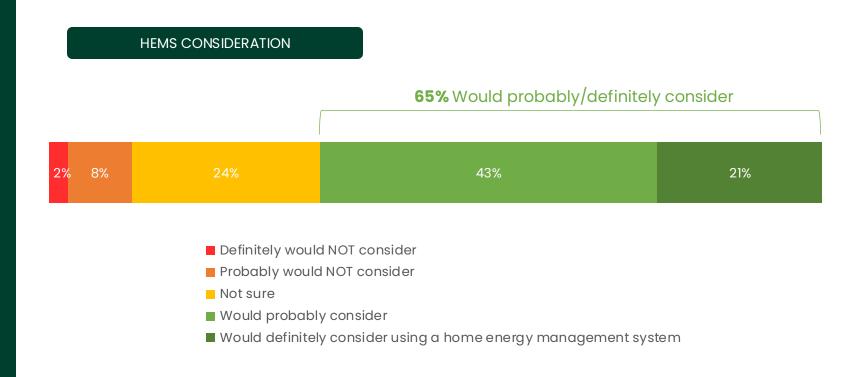
# 65% would consider a HEMS

Consideration was higher among under 45 year olds, higher incomes (\$100k+), and mortgage holders.

Non-considerers were more likely to be over 65, and low income.

The respondents from the *High Income & High Usage* segment are again more likely to be strong considerers of getting an HEM in the future.

Somewhat surprisingly, the respondents from the *High Income & Low Usage* segment are also much more likely to be considering getting an HEM in the near future.



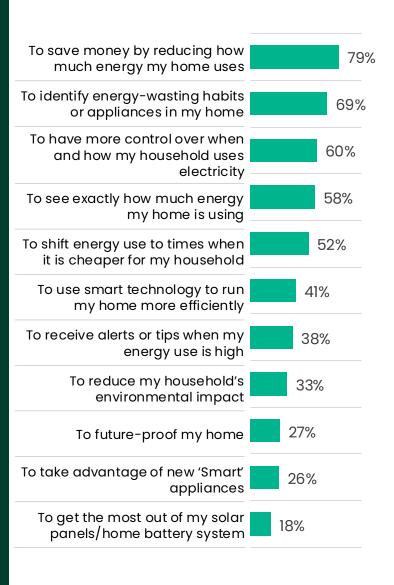


# Incentives and barriers to installing HEMS

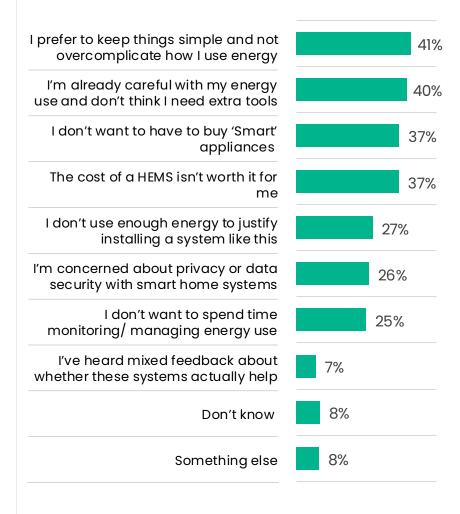
Motivations for HEMS consideration include cost saving, and increased information or control to help save costs.

Barriers include perceived complexity and lack of awareness.

#### MAIN REASONS FOR CONSIDERING HEMS



#### MAIN REASONS FOR **NOT** CONSIDERING HEMS



Renters/retirement villagers don't have control over install.
Older individuals uncomfortable with change.
High fixed charges or scepticism over rates.



Q. What are the main reason(s) you would consider installing a home energy management system at your home? Base n=618
Q. What are the main reason(s) you might not consider installing a home energy management system at your home? Base n=361

# **Considering HEMs**

### **Segment Differences**

Consistent with previous results, the High Income & High Usage respondents are below average for most considerations with the exception of running their home more efficiently and future-proofing their home.

The High Income & Low Usage respondents were above average for a number of key considerations revolving around being more proactive in managing their power usage.

The *Energy Hardship* respondents were above average for all considerations except for shifting their energy usage to times that are cheaper.

#### MAIN REASONS FOR CONSIDERING HEMS

To use smart technology to run my home more efficiently

To future-proof my home

To receive alerts or tips when my energy use is high

To take advantage of new 'Smart' appliances

To identify energy-wasting habits or appliances in my home

To get the most out of my solar panels and / or home battery system

To reduce my household's environmental impact

To shift energy use to times when it is cheaper for my household

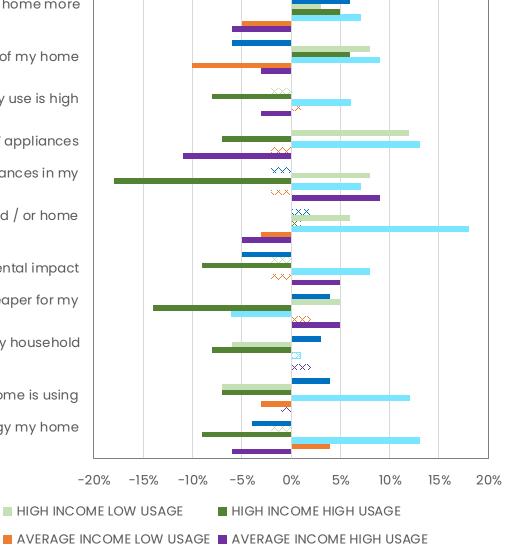
To have more control over when and how my household uses electricity

To see exactly how much energy my home is using

To save money by reducing how much energy my home uses

LOW INCOME LOW USAGE

ENERGY HARDSHIP



% higher or lower than the overall average

Q. What are the main reason(s) you would consider installing a home energy management system at your home?



# NOT Considering HEMs

### Segment Differences

The High Income & High Usage respondents are generally well below average for considering any of the barriers as reasons for not considering getting an HEM for their home.

Respondents from the Average Income & Low Usage segment are more likely to see a wide range of barriers to getting HEMs for their home – especially costs and return on investment.

Interestingly, the respondents from the High Income & Low Usage and Energy Hardship segments are much more likely to cite 'keeping things simple' in terms of how they use energy.

#### MAIN REASONS FOR **NOT** CONSIDERING HEMS

I've heard mixed feedback about whether these systems actually help

I'm concerned about privacy or data security with smart home systems

I'm already careful with my energy use and don't think I need extra tools

I don't want to spend time monitoring or managing my energy use

I prefer to keep things simple and not overcomplicate how I use energy

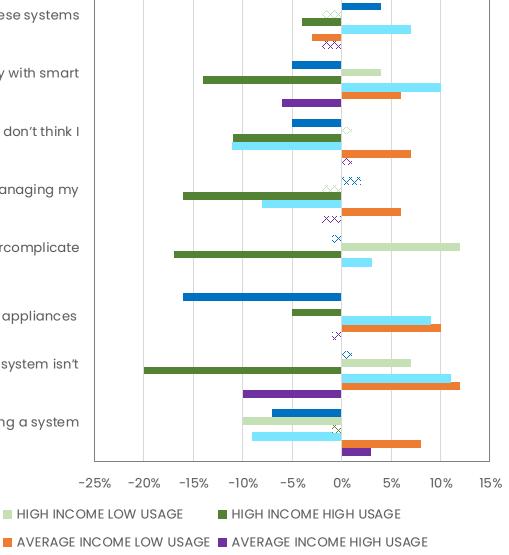
I don't want to have to buy 'Smart' appliances

The cost of a home energy management system isn't worth it for me

I don't use enough energy to justify installing a system like this

LOW INCOME LOW USAGE

ENERGY HARDSHIP



% higher or lower than the overall average

Q. What are the main reason(s) you might not consider installing a home energy management system at your home?



