

*Telephone Survey*

# Public Attitudes Toward Refurbishment

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**cna** canadian  
nuclear  
association

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# Key Findings

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1. Support for refurbishment in general is strong at 76% overall, and increases in conjunction with understanding of nuclear (from 72% to 82% strongly or somewhat support).
2. Support for refurbishing Bruce Power is marginally higher (79%) – albeit also marginally less intense (34% strongly support vs 38%) – than support for refurbishment in general. Support for refurbishment at Bruce Power is the one subject in this survey on which opinion does not vary significantly by the degree to which respondents say they understand nuclear energy.
3. Opinion is fairly evenly divided on the impact refurbishment at Bruce Power would have on electricity prices (32% good, 28% bad, 26% don't know), but a strong majority (69%) anticipate a positive impact on jobs/the economy. Just under 3-in-10 (28%) think refurbishment at Bruce Power would be good for both electricity prices and jobs/the economy. Conversely, only 5% anticipate a negative impact on both.
4. Less than half (45%) are familiar with Bruce Power, but a plurality of those who have heard of it have a positive impression (46% say “good” or better).
5. Respondents with an opinion on the management of Bruce Power view it favourably. Bruce Power is viewed as safe (50% net agree), secure (45% net agree), responsibly managed (37% net agree) and a good corporate citizen (36% net agree). Favourable opinion is significantly higher among those who are familiar with Bruce Power. Further, response to messages regarding medical isotopes is much more positive than negative.

# Methodology & Demographics

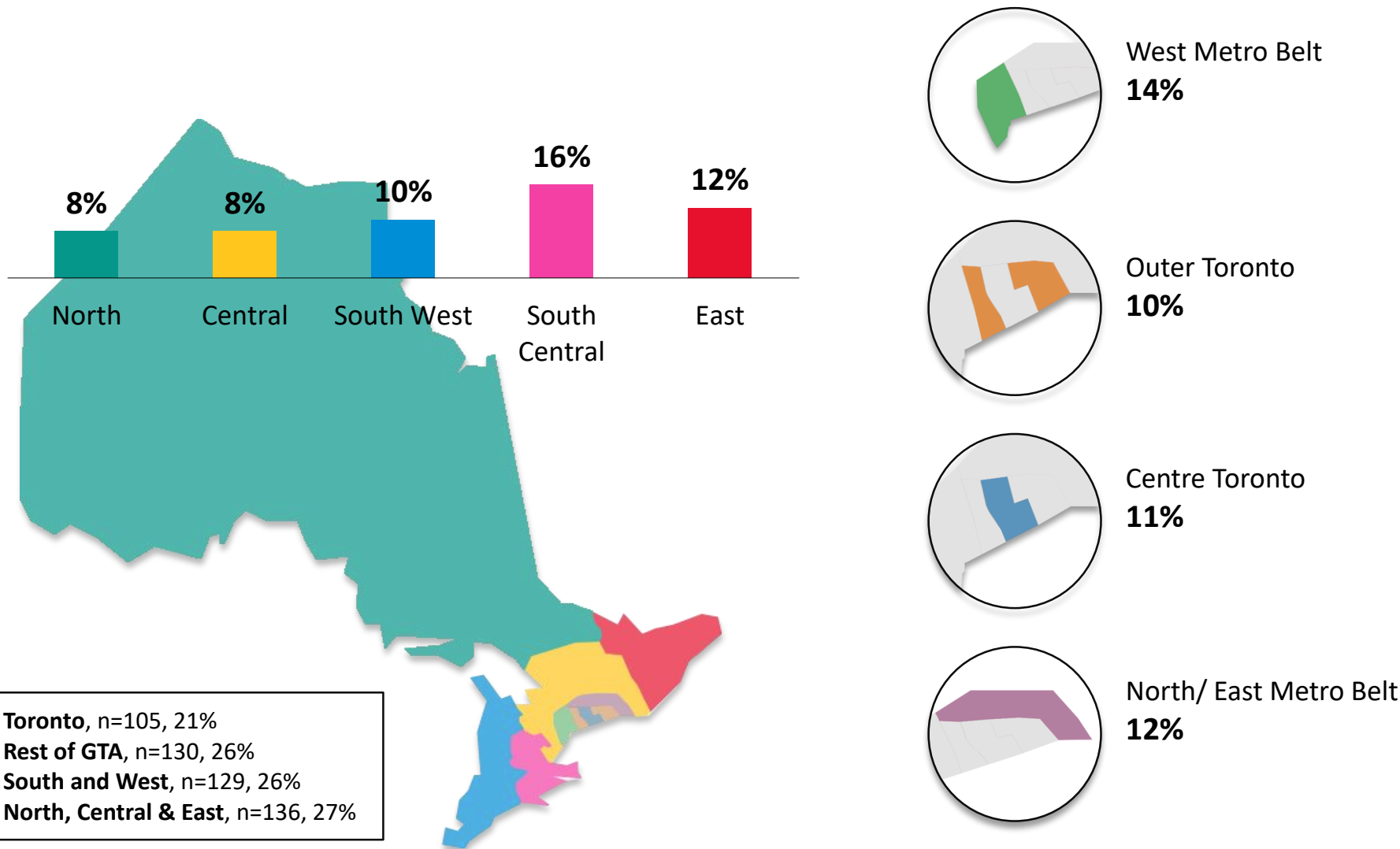
# Methodology

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- These are the results of a telephone survey of 578 randomly-selected Ontario residents, 18 years or older, between May 11<sup>th</sup> and May 15<sup>th</sup>, 2018.
- Only one respondent per household was eligible to complete this survey.
- The survey includes both landline and cellphone respondents in order to ensure representation of cellphone only households.
- The sample has been weighted by age, gender and region to n=500 using the latest available Statistics Canada Census data to reflect the actual demographic composition of the population.
- After weighting the data, the aggregated results are considered accurate to within  $\pm 4.4\%$ , 19 times out of 20.
- The margin of error will be larger within each sub-grouping of the sample.

**Note:** *Graphs and tables may not always total 100% due to rounding values rather than any error in data. Sums are added before rounding numbers.*

# Regional Segmentation



To have a more meaningful analysis, the 9 regions are further combined into 4 regions: Toronto (Outer Toronto + Centre Toronto), Rest of GTA (the Metro Belts), South/West (South West + South Central), and North/East (East + Central + North).



# Demographics: *Respondent Profile*

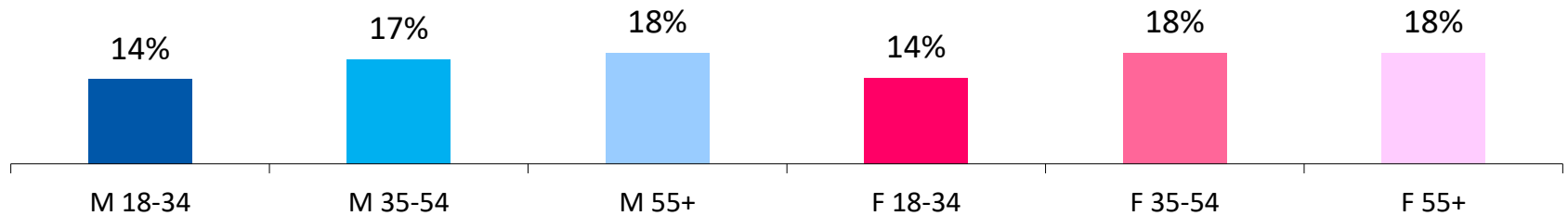
## Age-Gender



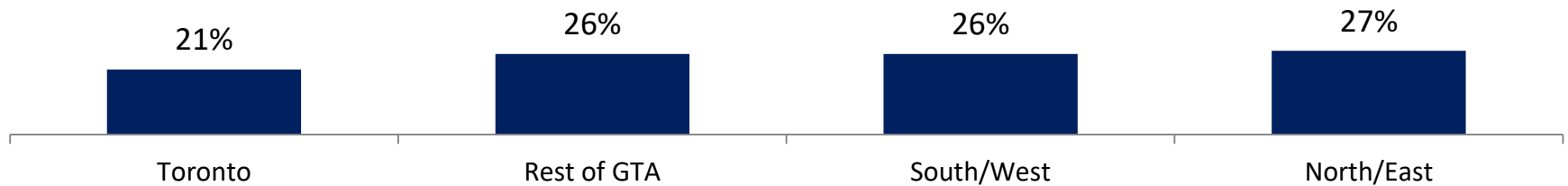
= 48%



= 52%



## Region



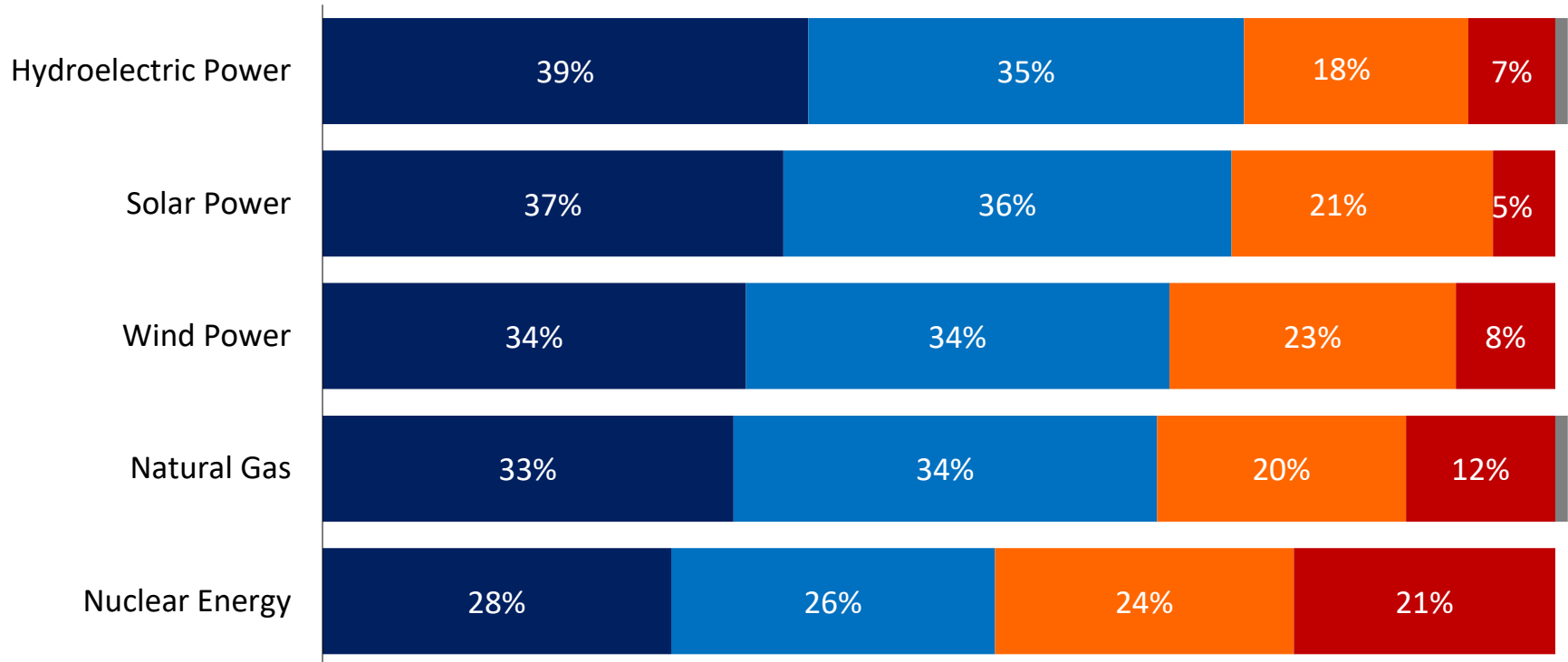
# Support for Refurbishment

# Familiarity: Over half of respondents report at least a general understanding of all types of power generation

Q

I am now going to read you a list of several ways to produce electricity. For each of these ways of producing energy, please tell me if ...

[asked of all respondents]



- You understand the details of that way of generating electricity works
- You have a general understanding but don't know the details
- You know a little, but not much
- You don't know anything at all about how it works
- Don't know



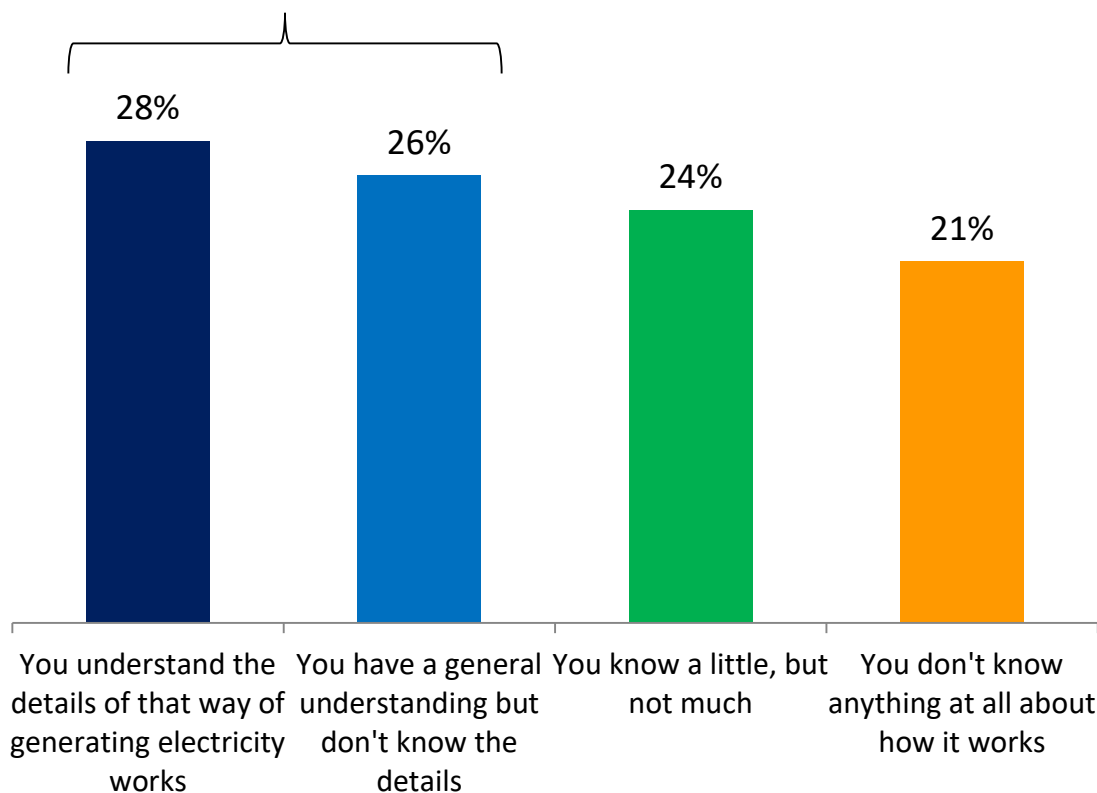
# Familiarity w/ Nuclear Energy: Reported familiarity significantly higher among men than women, and in Toronto

Q

I am now going to read you a list of several ways to produce electricity. For each of these ways of producing energy, please tell me if ... [Nuclear Energy]

[asked of all respondents]

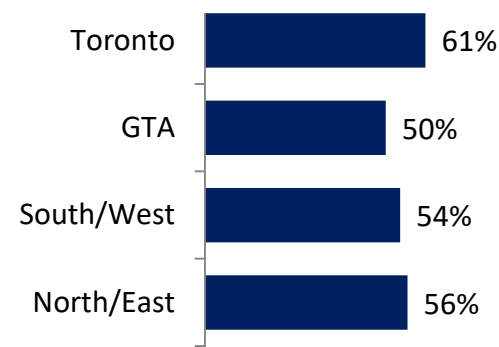
**Familiar: 55%**



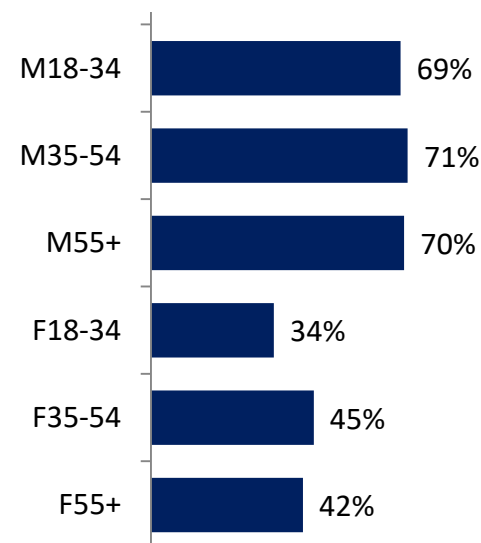
## Sample Breakdown ►►

*Those who have at least a general understanding*

### Region



### Age/Gender



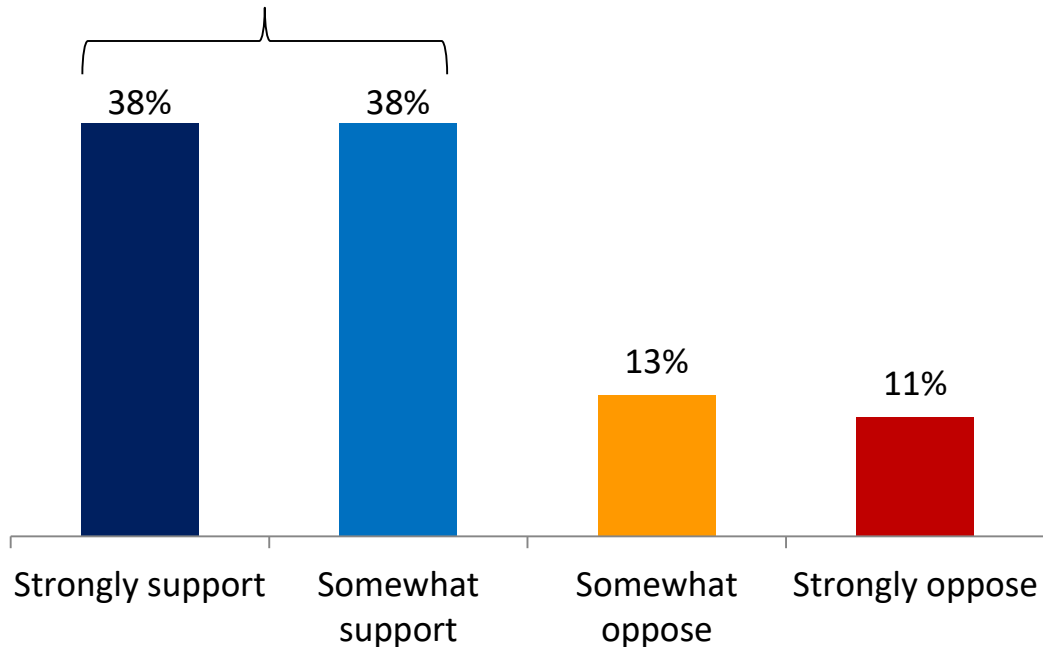
# Decided Support for Refurbishment – General: Support increases with nuclear energy familiarity

Q

Many large power-generating plants in Ontario with various fuel sources will have to be replaced over the next 10 years or so because they are aging. In Ontario 80% of the plants will have to be replaced. In order to help meet Ontario future electricity demand, would you strongly support, somewhat support, somewhat oppose or strongly oppose upgrading and refurbishing existing nuclear power plants?

[asked of all respondents]

**Support: 76%**



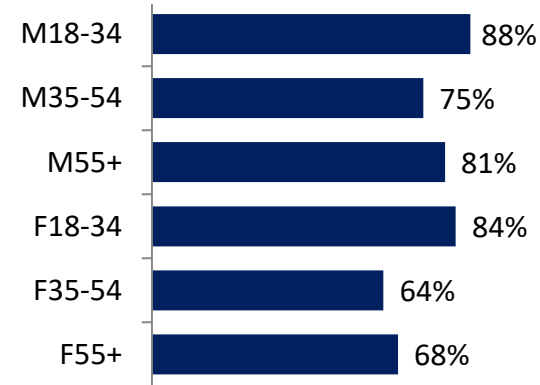
## Sample Breakdown ►►

*Those who say “support”*

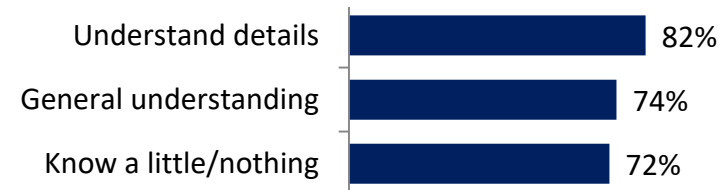
### Region



### Age/Gender



### Familiarity w/ Nuclear Energy



**NOTE:** the results have been recalculated to exclude those who said “Don’t know”

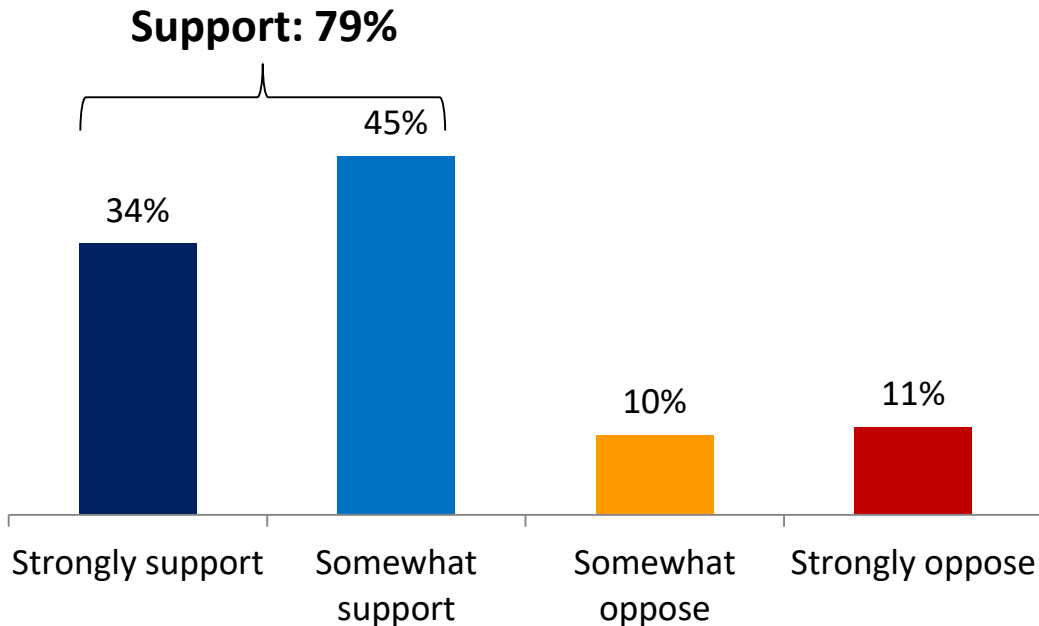
# Decided Support for Refurbishment – Bruce: Support for BP<sup>11</sup>

## refurb highest among those who support refurb in general

Q

One of these older power stations is the Bruce Power station on the Bruce peninsula which has 6 nuclear plants that are nearing the end of their operating life. Together the Bruce units provide 30% of Ontario's electricity. The plants are operated by a private company called Bruce Power but they are ultimately owned by the Province of Ontario. With a thorough upgrade, each of those generating stations can continue to operate for at least another 30 years. To what extent would you support the government refurbishing the Bruce Power station?

[asked of all respondents]



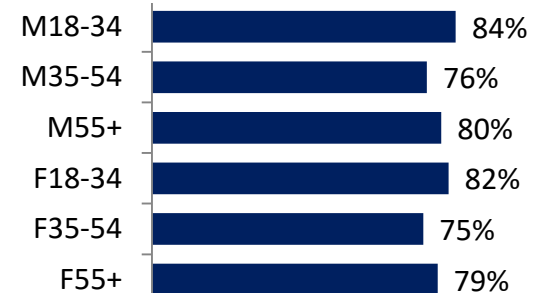
### Sample Breakdown ►►

*Those who say "support"*

#### Region



#### Age/Gender



#### Familiarity w/ Nuclear Energy



#### General Support for Refurbishment



**NOTE:** the results have been recalculated to exclude those who said "Don't know"

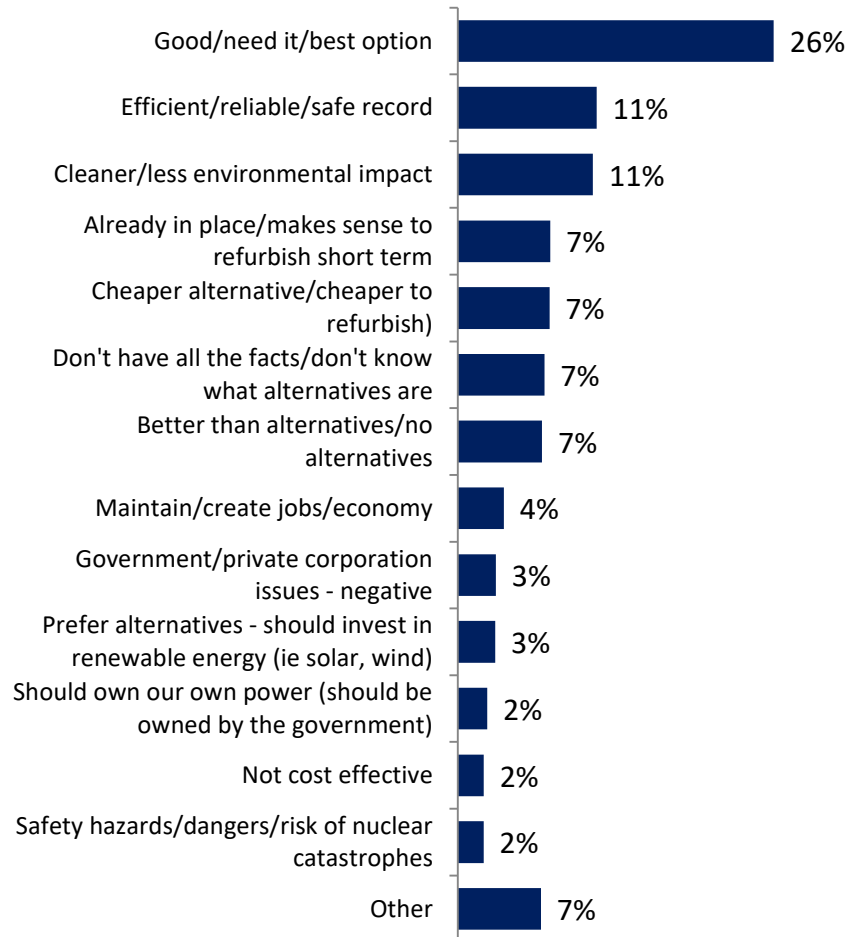
# Why Support/Oppose?: 26% of supporters say “need to/best option”; 25% of opponents prefer (renewable) alternatives<sup>12</sup>



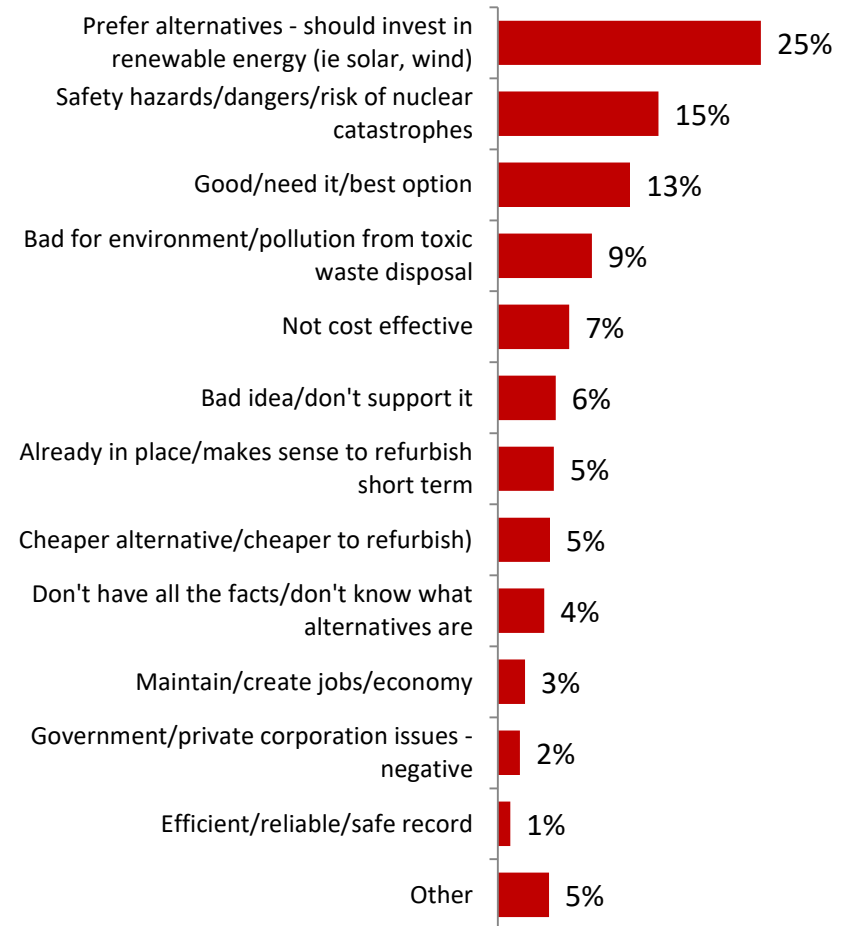
And can you please tell me why?

[asked of those who either support or oppose refurbishing Bruce Power, n=405]

## Support: n=306



## Oppose: n=98



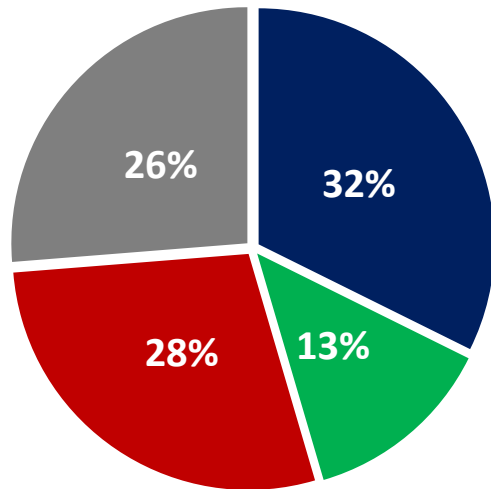
Note: “Refused” (<1% for Support; 0% for Oppose) not shown.

# Impact of Bruce Power Refurb: While uncertain about electricity prices, a positive outlook for the economic benefit

Q

If the Ontario Government chose to refurbish existing nuclear power units at Bruce Power, do you think this would be...?

[asked of all respondents]

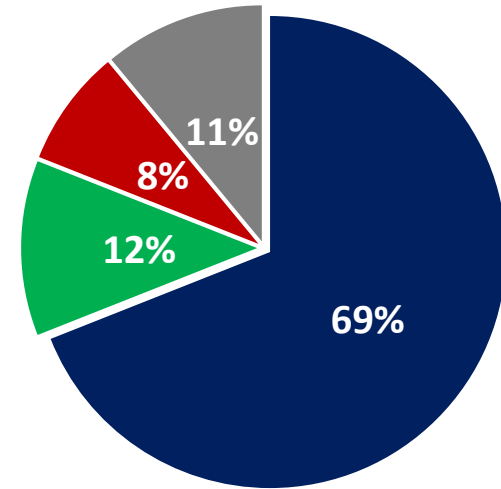


■ Good for electricity prices   ■ Neutral/no opinion  
■ Bad for electricity prices   ■ Don't know

Q

If the Ontario Government chose to refurbish existing nuclear power units at Bruce Power, do you think this would be...?

[asked of all respondents]



■ Good for jobs/the economy   ■ Neutral/no opinion  
■ Bad for jobs/the economy   ■ Don't know

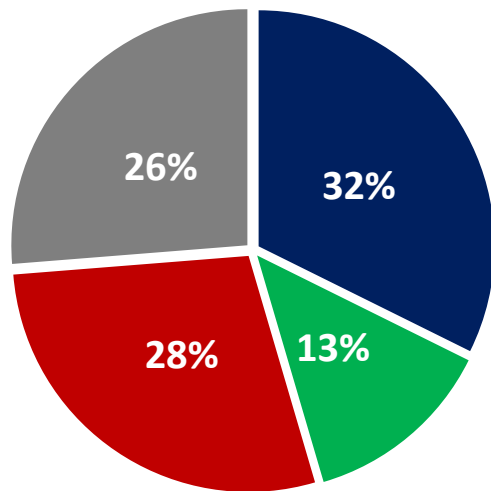
NOTE: "Refused" (1%) not shown

# Impact of Bruce Power Refurb – Prices: Price expectations more positive with understanding of nuclear energy

Q

If the Ontario Government chose to refurbish existing nuclear power units at Bruce Power, do you think this would be...?

[asked of all respondents]

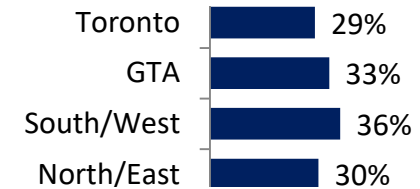


■ Good for electricity prices    ■ Neutral/no opinion  
 ■ Bad for electricity prices    ■ Don't know

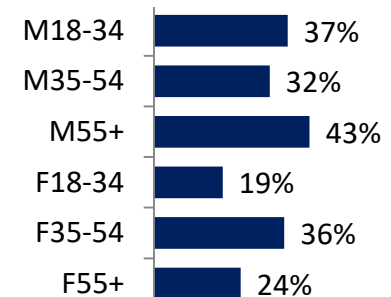
## Sample Breakdown ►►

*Those who say "good for electricity prices"*

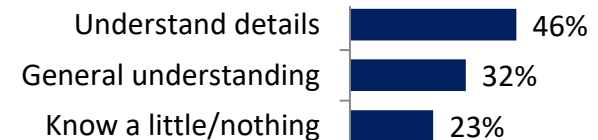
### Region



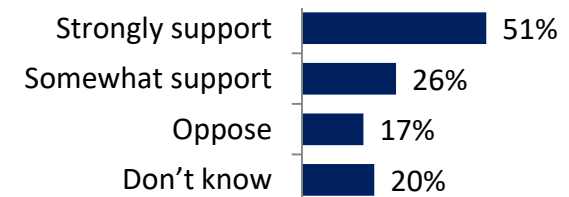
### Age/Gender



### Familiarity w/ Nuclear Energy



### General Support for Refurbishment

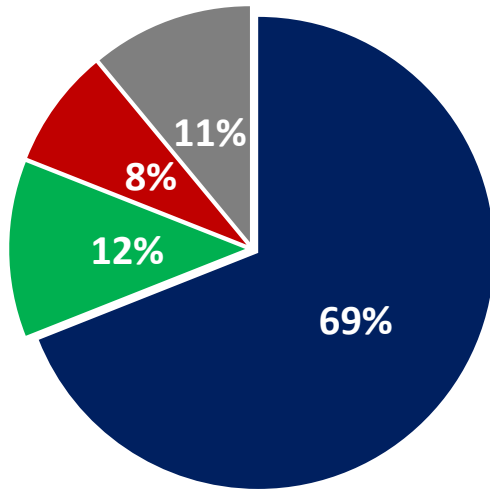


NOTE: "Refused" (1%) not shown

# Impact of Bruce Power Refurb – Jobs/Economy: Strong anticipation that refurbishment at Bruce Power will be good for jobs

**Q** If the Ontario Government chose to refurbish existing nuclear power units at Bruce Power, do you think this would be...?

[asked of all respondents]



■ Good for jobs/the economy 
 ■ Neutral/no opinion  
■ Bad for jobs/the economy 
 ■ Don't know

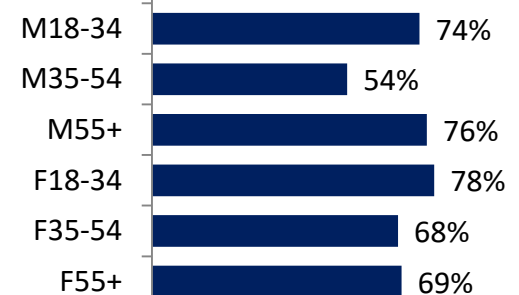
## Sample Breakdown ►►

*Those who say "good for jobs/the economy"*

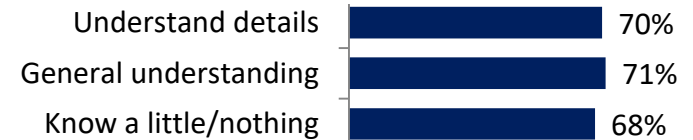
### Region



### Age/Gender



### Familiarity w/ Nuclear Energy



### General Support for Refurbishment





# Impact of Bruce Power Refurb: Only 5% of respondents believe the refurbishment will have a negative impact on prices *and* economy

Q

If the Ontario Government chose to refurbish existing nuclear power units at Bruce Power, do you think this would be...?

[asked of all respondents]

Percentage out of the entire sample	Good for electricity prices	Neutral/ no opinion	Bad for electricity prices	Don't know
Good for jobs/the economy	28%	8%	17%	16%
Neutral/no opinion	2%	5%	3%	2%
Bad for jobs/the economy	1%	0%	5%	1%
Don't know	1%	0%	2%	8%

# Bruce Power

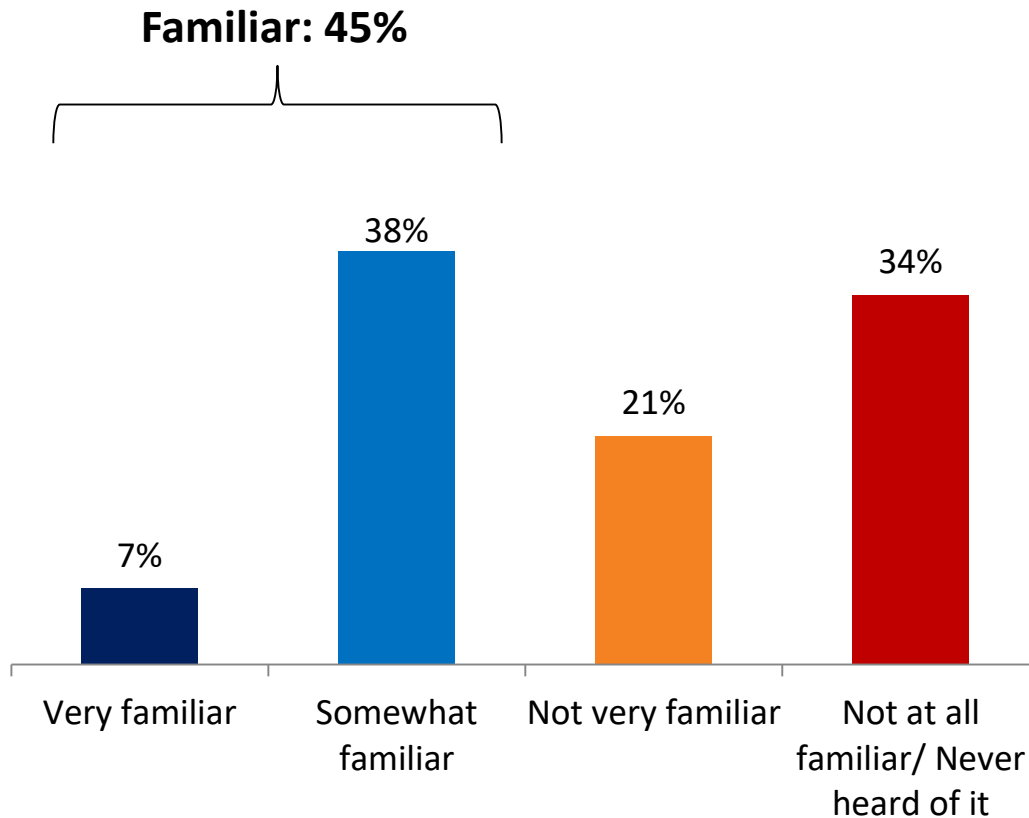
# Familiarity w/ Bruce Power: Almost half (45%) are at least somewhat familiar, highest among most familiar with nuclear

18



How familiar are you with Bruce Power?

[asked of all respondents]



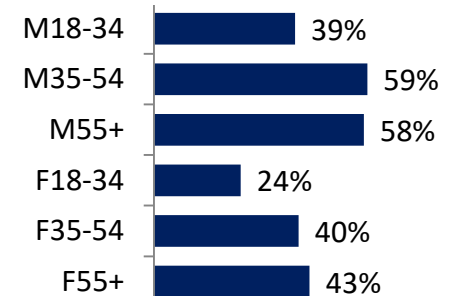
## Sample Breakdown ►►

*Those who say "familiar"*

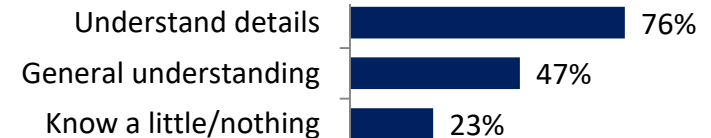
### Region



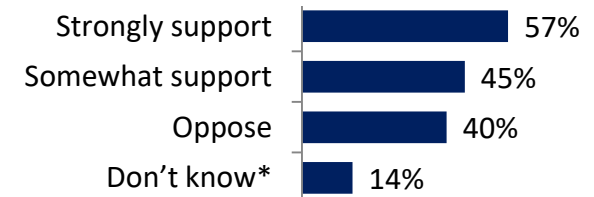
### Age/Gender



### Familiarity w/ Nuclear Energy



### General Support for Refurbishment



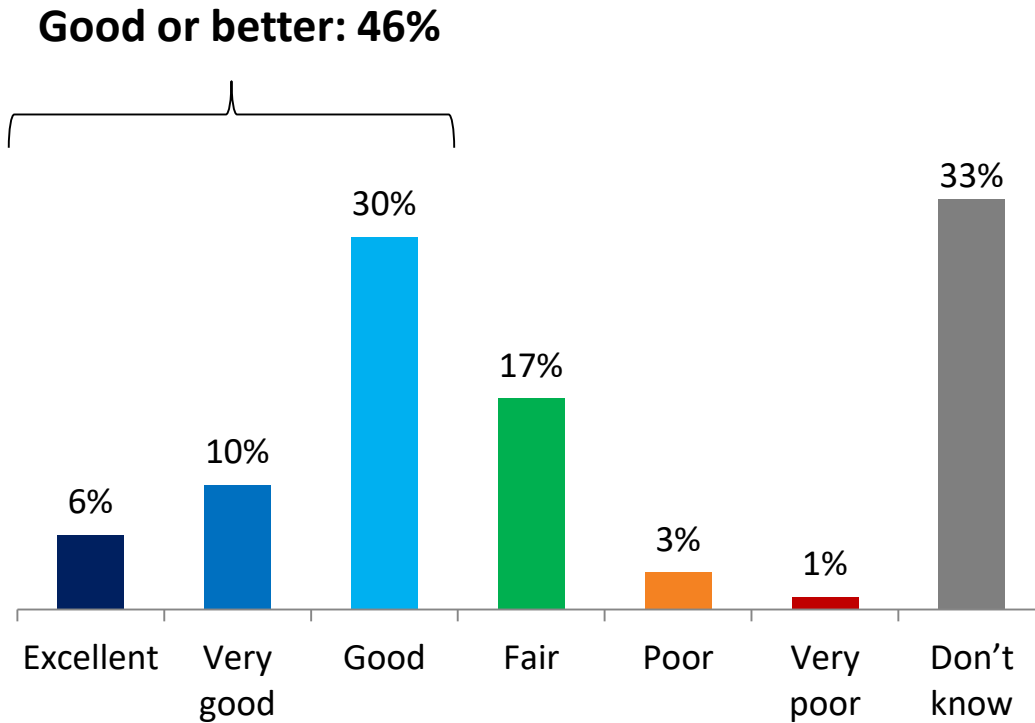
\* **NOTE:** Results should be interpreted with caution due to small sample size (n=56)

# Impression of Bruce Power: A plurality have a good or better<sup>19</sup> impression. Impression improves with nuclear familiarity.



And, what is your overall impression of Bruce Power?

[asked of those who have heard of Bruce Power, n=410]



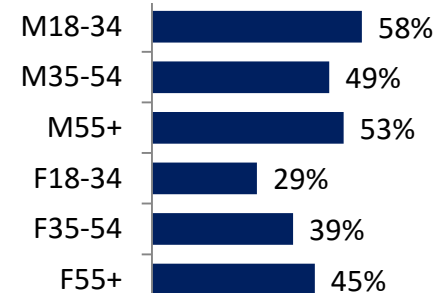
## Sample Breakdown ►►

*Those who say "good" or better*

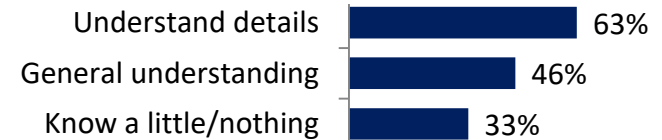
### Region



### Age/Gender



### Familiarity w/ Nuclear Energy



### General Support for Refurbishment



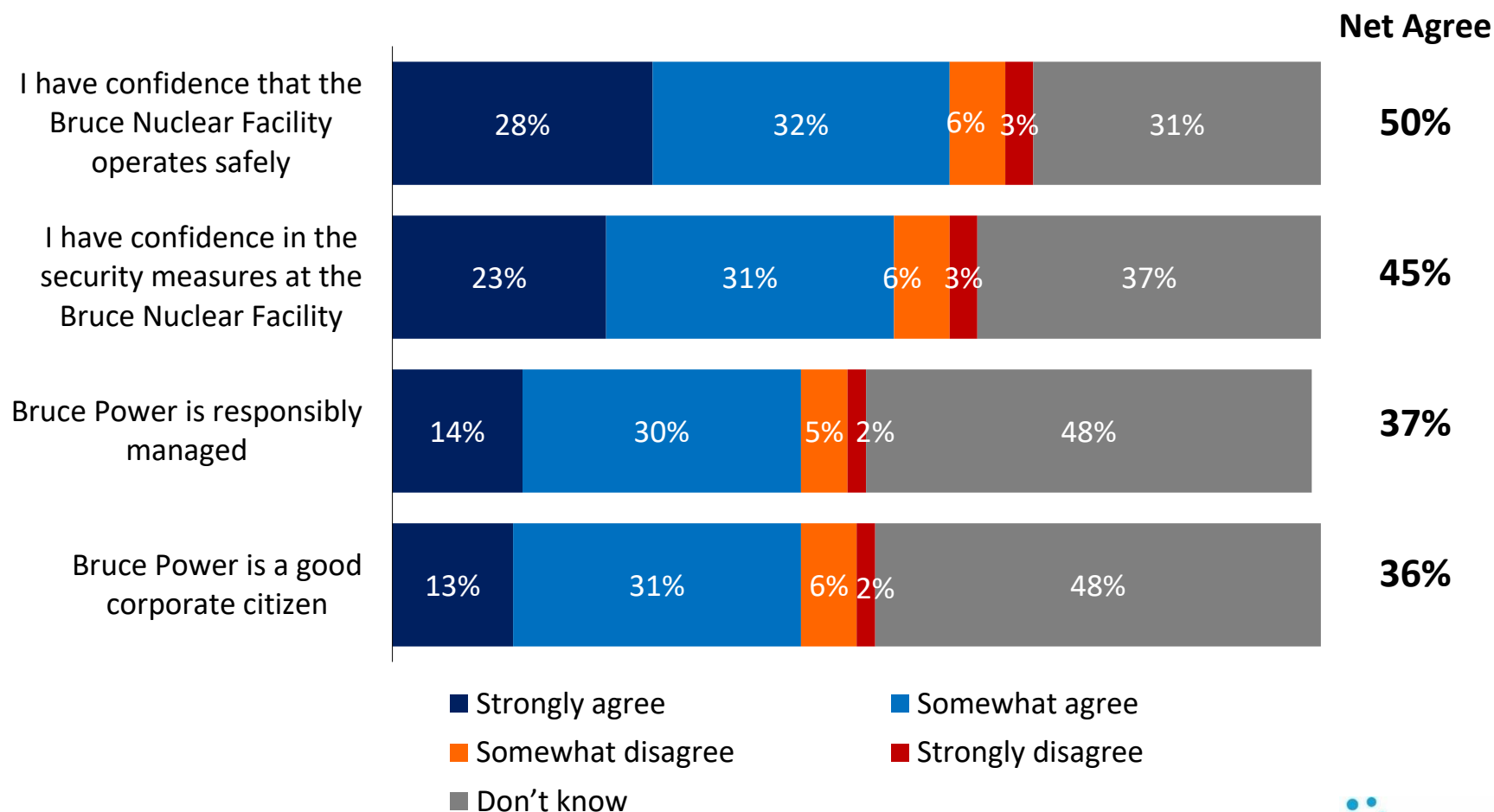
\* **NOTE:** Results should be interpreted with caution due to small sample size (n=29)

# Opinion of Bruce Power: Among those with an opinion, impressions of Bruce Power are strongly favourable

Q

I am now going to read you a few statements about Bruce Power. Please tell me to what extent you agree or disagree with each one.

[asked of all respondents]



**NOTE:** "Refused" (1% or less) not shown.

# Opinion of Bruce Power by Familiarity: Favourable opinion consistently at least 2x higher among those familiar w/ BP

Q

I am now going to read you a few statements about Bruce Power. Please tell me to what extent you agree or disagree with each one.

[asked of all respondents]

Net Agree with Statement	Familiar with Bruce Power	Not familiar with Bruce Power
I have confidence that the Bruce Nuclear Facility operates safely	73%	32%
I have confidence in the security measures at the Bruce Nuclear Facility	67%	27%
Bruce Power is responsibly managed	55%	22%
Bruce Power is a good corporate citizen	54%	21%

# Opinion of Bruce Power by Support for BP Refurb:

## Favourable opinion increases with support for BP refurb

Q

I am now going to read you a few statements about Bruce Power. Please tell me to what extent you agree or disagree with each one.

[asked of all respondents]

### Support or Oppose BP Refurbishment

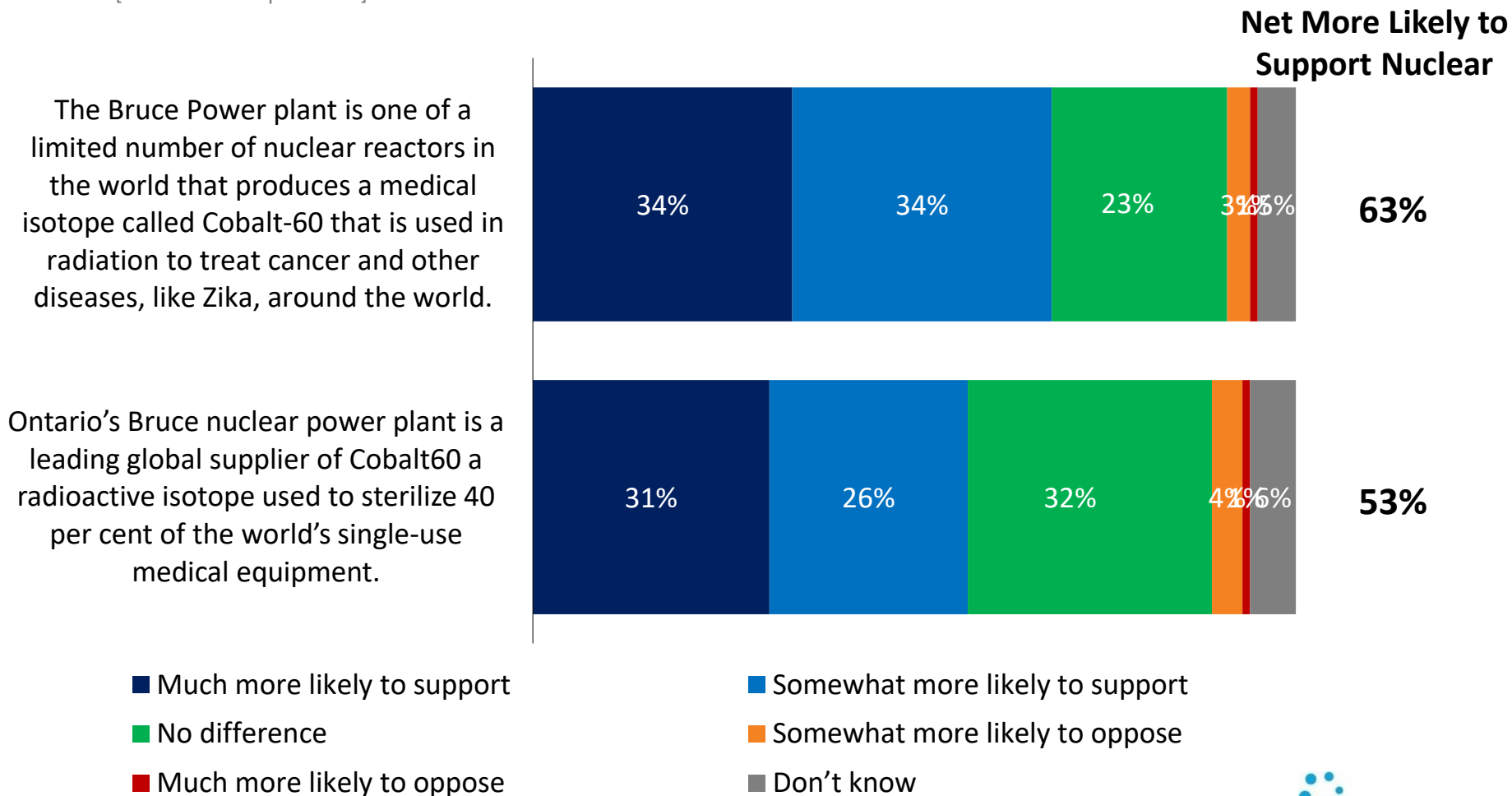
Net Agree with Statement	Strongly Support	Somewhat Support	Oppose
I have confidence that the Bruce Nuclear Facility operates safely	81%	51%	20%
I have confidence in the security measures at the Bruce Nuclear Facility	75%	46%	9%
Bruce Power is responsibly managed	67%	32%	13%
Bruce Power is a good corporate citizen	59%	36%	6%



# Medical Isotopes: Both statements regarding medical isotopes have strong positive impact on support for nuclear

**Q** I am going to read you a couple of statements regarding Ontario's Bruce nuclear power plant, which is located in Kincardine. For each one, I'd like you to tell me if it leaves you more likely to support or oppose nuclear as a way of producing energy. If it makes no difference, please say so.

[asked of all respondents]



# Medical Isotopes by Familiarity: Strong favourable reaction<sup>24</sup> to isotopes msgs even among those unfamiliar with BP

**Q** I am going to read you a couple of statements regarding Ontario's Bruce nuclear power plant, which is located in Kincardine. For each one, I'd like you to tell me if it leaves you more likely to support or oppose nuclear as a way of producing energy. If it makes no difference, please say so.

[asked of all respondents]

Net "More Likely to Support"	Familiar with Bruce Power	Not familiar with Bruce Power
The Bruce Power plant is one of a limited number of nuclear reactors in the world that produces a medical isotope called Cobalt-60 that is used in radiation to treat cancer and other diseases, like Zika, around the world.	68%	60%
Ontario's Bruce nuclear power plant is a leading global supplier of Cobalt60, a radioactive isotope used to sterilize 40 per cent of the world's single-use medical equipment.	60%	47%

# Medical Isotopes by Support for BP Refurb: Most favourable response among strongest BP refurb supporters

Q

I am going to read you a couple of statements regarding Ontario's Bruce nuclear power plant, which is located in Kincardine. For each one, I'd like you to tell me if it leaves you more likely to support or oppose nuclear as a way of producing energy. If it makes no difference, please say so.

[asked of all respondents]

## Support or Oppose BP Refurbishment

Net "More Likely to Support"	Strongly Support	Somewhat Support	Oppose
The Bruce Power plant is one of a limited number of nuclear reactors in the world that produces a medical isotope called Cobalt-60 that is used in radiation to treat cancer and other diseases, like Zika, around the world.	80%	69%	29%
Ontario's Bruce nuclear power plant is a leading global supplier of Cobalt60, a radioactive isotope used to sterilize 40 per cent of the world's single-use medical equipment.	72%	60%	13%



# Building Understanding.

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