

Polarization over Energy and Climate in Canada: Canada's Climate Performance, Renewables, Nuclear, Community Roles

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February 2021

POSITIVE **ENERGY**

CANADA'S ENERGY FUTURE IN AN
AGE OF CLIMATE CHANGE



uOttawa

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Research Questions*

1. **To what extent are attitudes – across a variety of different energy contexts – polarized in Canada?**
2. **What sociodemographic characteristics or political preferences underlie views and attitudes towards energy?**
3. **Along what dimensions and in which sectors are Canadians most divided?**
4. **Are there areas of the energy context that Canadians agree on?**
5. **How does political competition (polarization) play with our expectations for change in the energy sector?**

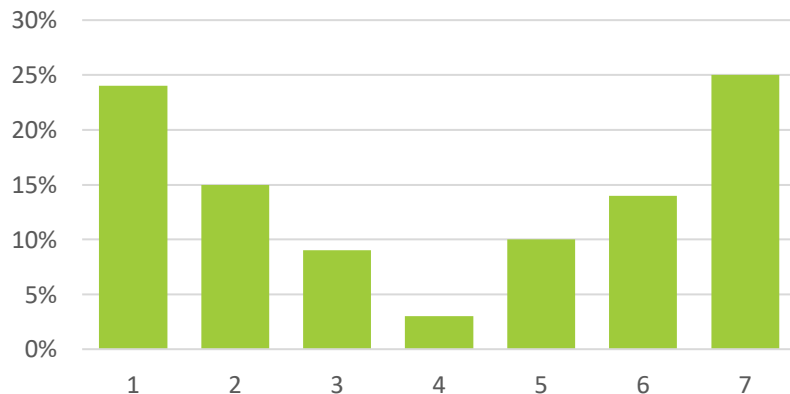
*This work was developed using survey design and implementation executed by professors Stephen Bird (Clarkson University) and Erick Lachapelle (Université de Montréal), and supported by Positive Energy in Fall 2019.

Methodology

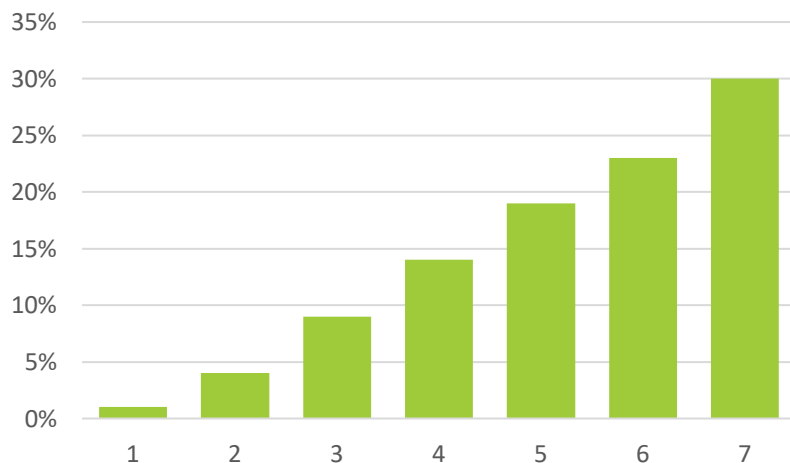
- **Online survey via Qualtrics**
- **Dates: Sept. 9-19 for about 90%, complete by Sept. 29 2019**
 - Caveat 1: Election context (prior to collapse of oil prices and COVID-19)
 - Caveat 2: Bivariate analysis
- **N = 2738**
 - 5 regional subsamples (BC, Prairie, ON, QC, Atlantic): n = 500+
 - 4 ideological quartiles (furthest to the left, 25%; 3rd quartile, 25%; 2nd quartile, 27%; furthest to the right, 23%); see slide 63 for notes on ideology scoring
 - (Margin of Error is not applicable for this kind of survey)
- **Age groups**
 - Silent '28-45, Boomers '46-64, Gen X '65-80, Millennials '81-95, Gen Z '96+

Defining Polarized Opinion

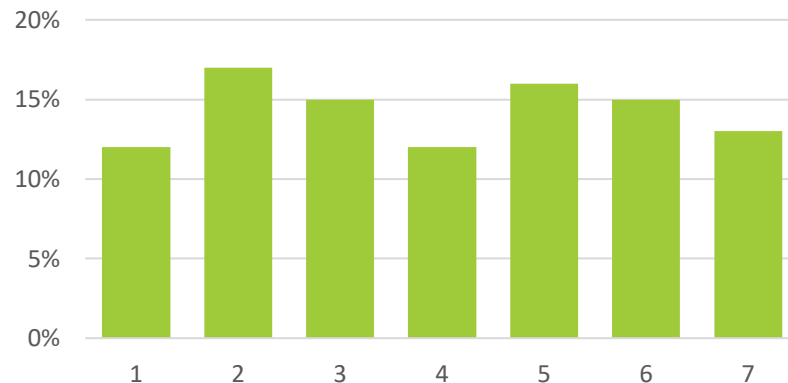
Polarized opinion



Opinion in agreement



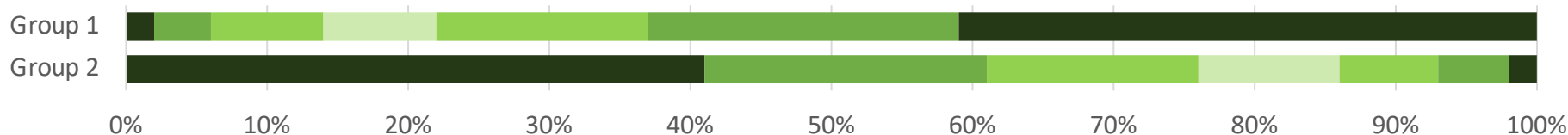
Fragmented opinion, not polarized



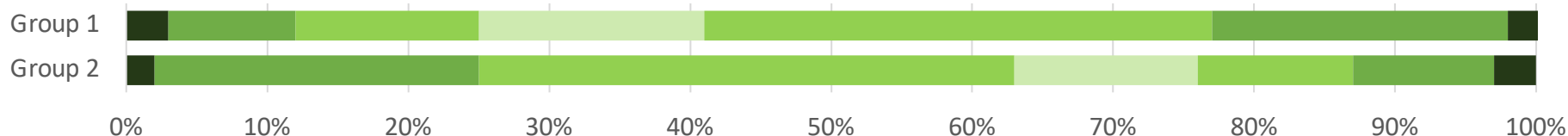
- Each example graph shows the % of respondents choosing a Likert Scale number from 1 to 7 (e.g., from “strongly disagree” to “strongly agree”).
- Ex. 1 shows polarized opinion (inverted U shape), with opinion concentrated at the extreme ends of the scale.
- Ex. 2 shows opinion that is fragmented, but relatively few take extreme positions; Ex 3. shows opinion that trends toward strong agreement.
- **The distinction between polarized/fragmented is key for policymakers: polarized views are hardened and difficult to change; fragmented are more amenable to compromise.**

Second Example of Polarized Opinion

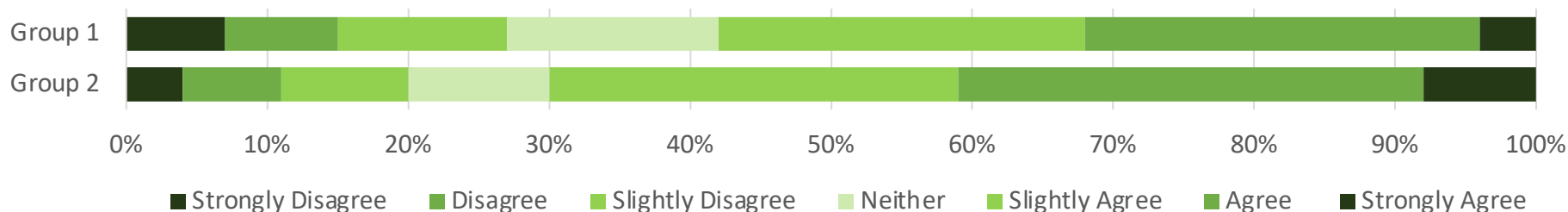
1. Polarized opinion



2. Fragmented opinion, not polarized



3. Opinion in agreement



- Each graph how public opinion can express across groups; these could be regions, age groups, community type, or partisan affiliations.
- The first chart shows highly polarized opinion; The second and third show fragmented opinion and agreement, respectively.



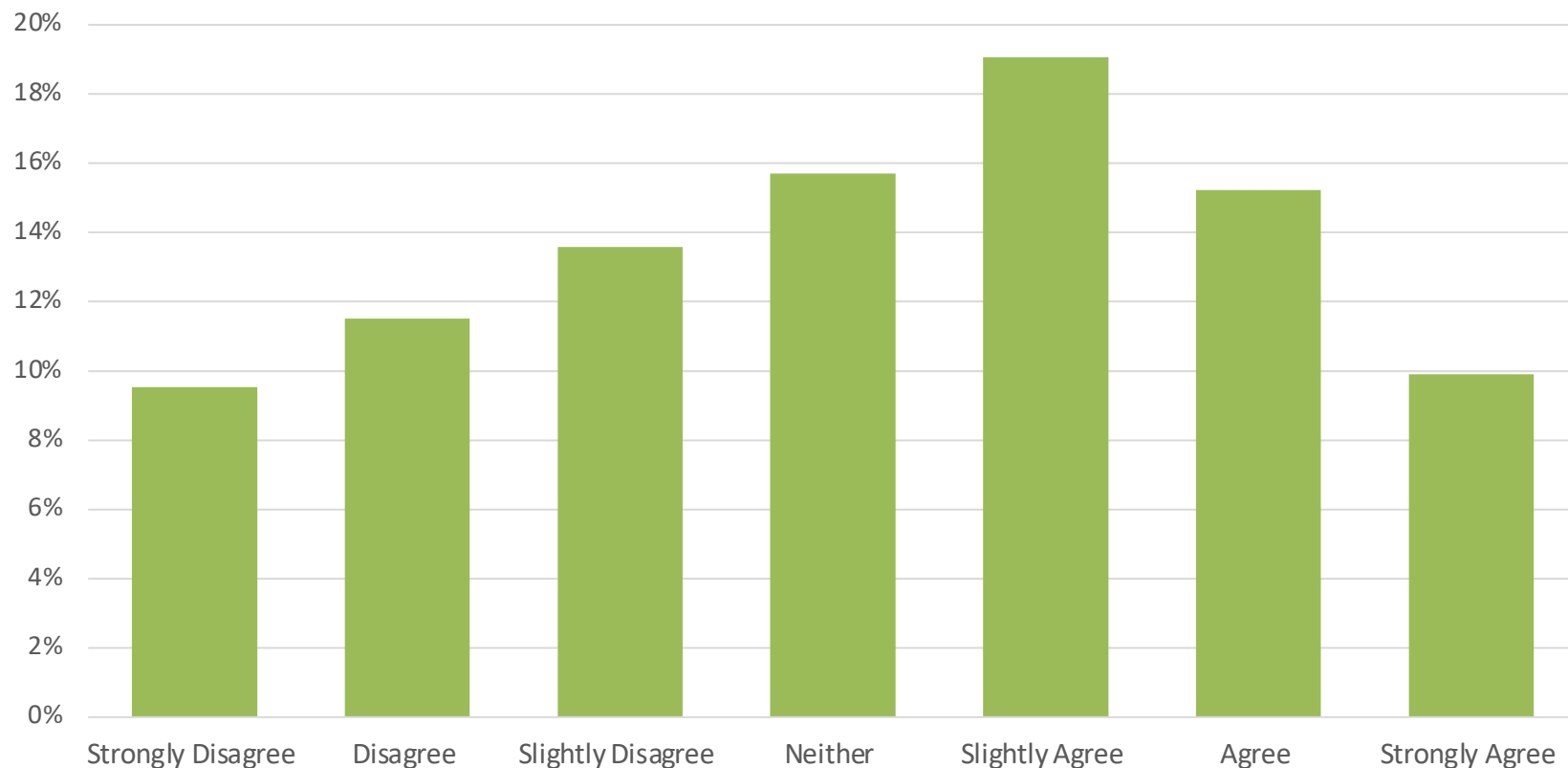
Canada's Climate Performance



Positive Energy asked Canadians whether they believe Canada is doing its fair share to address climate change.

Public opinion is fragmented on this question across all demographics, with the exception of party support and ideology, which tends towards polarized.

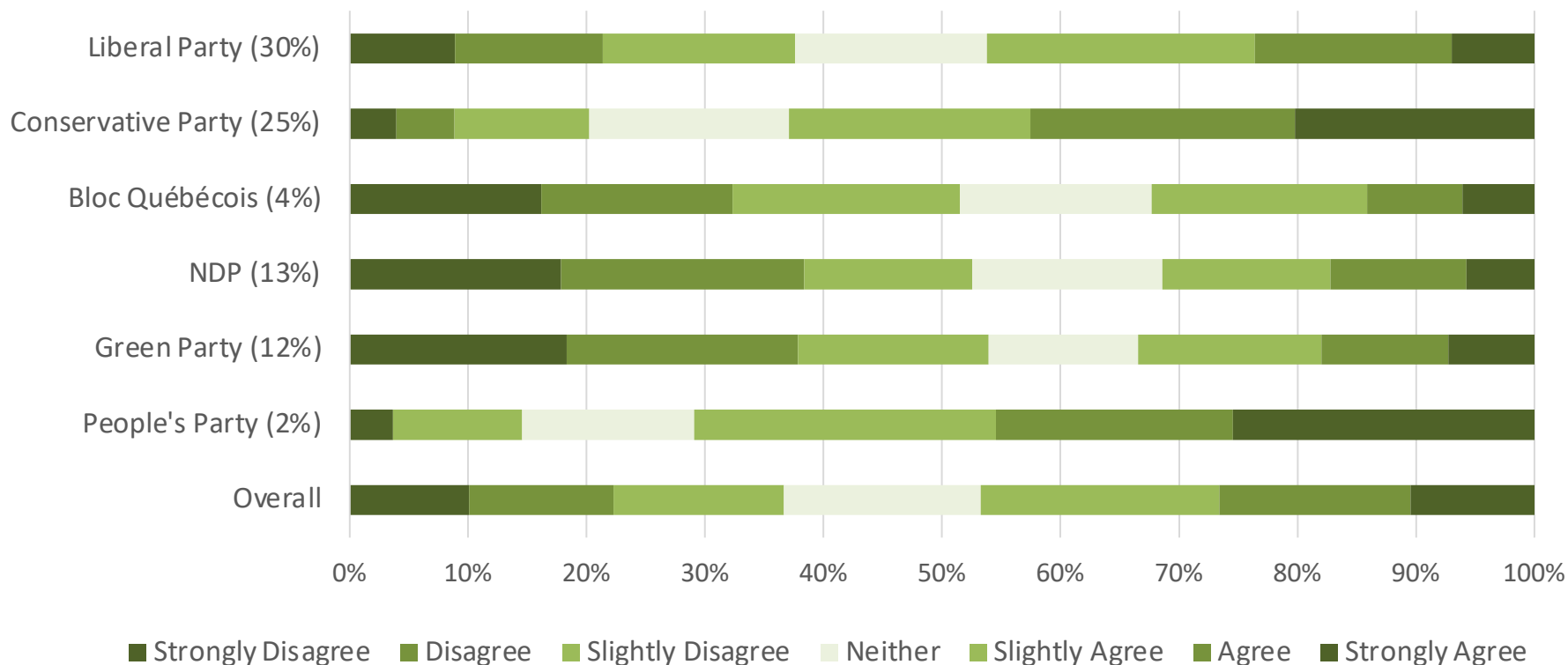
Climate Change Performance



Statement: Canada is already doing its fair share in addressing climate change

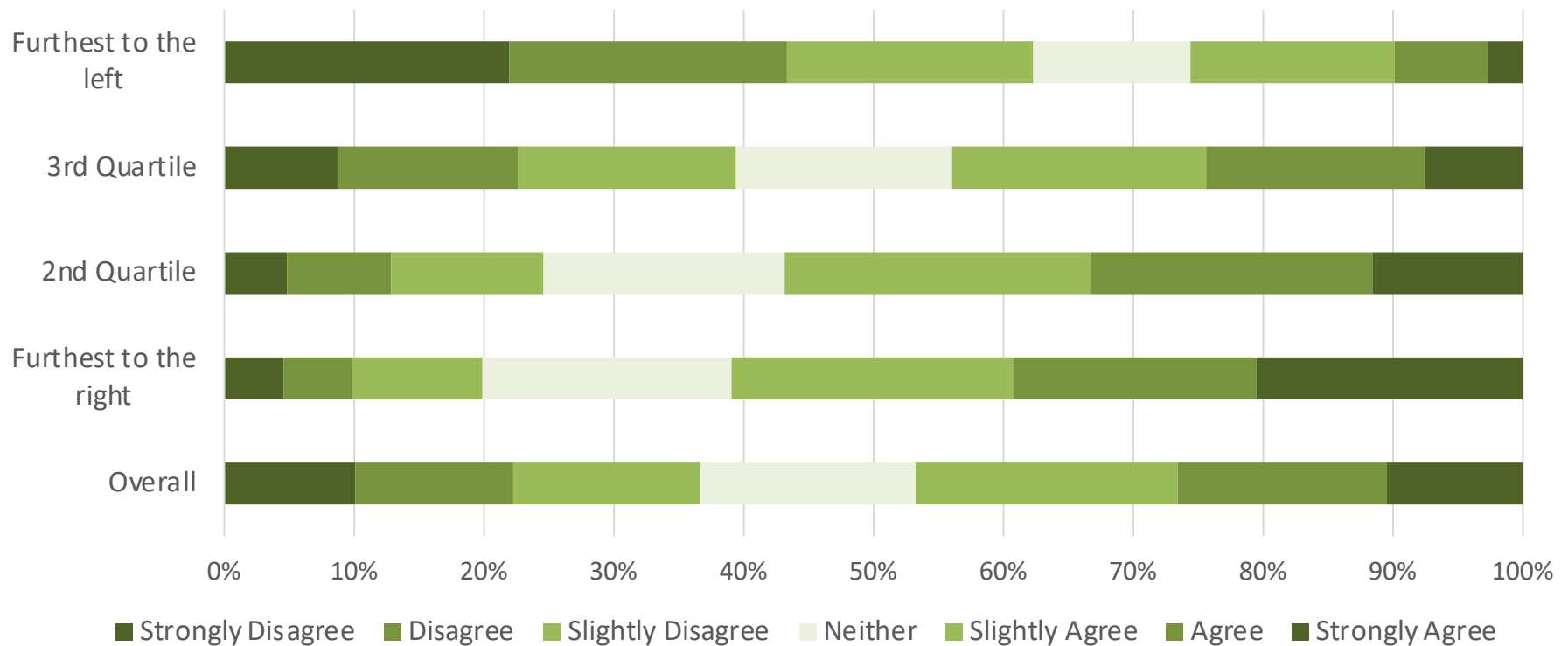


Climate Change Performance: Party



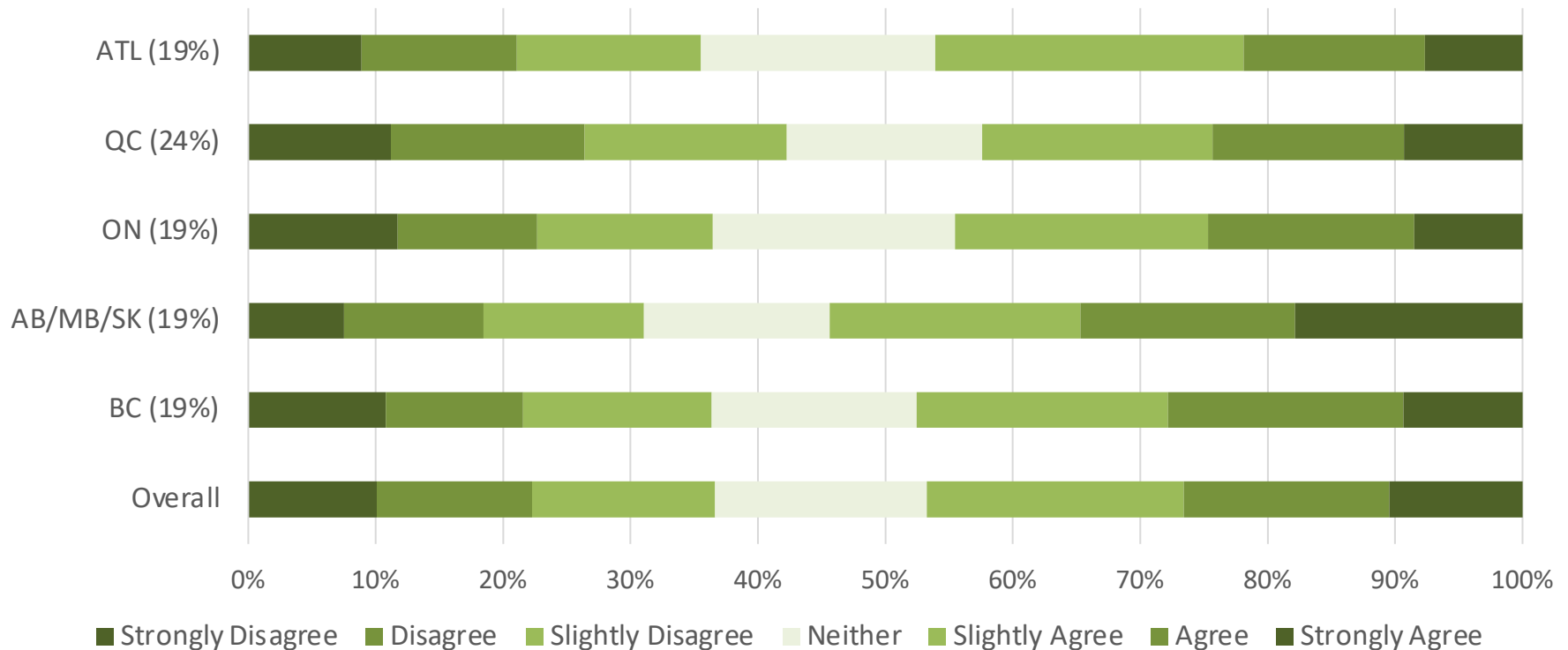
Statement: Canada is already doing its fair share in addressing climate change

Climate Change Performance: Ideology



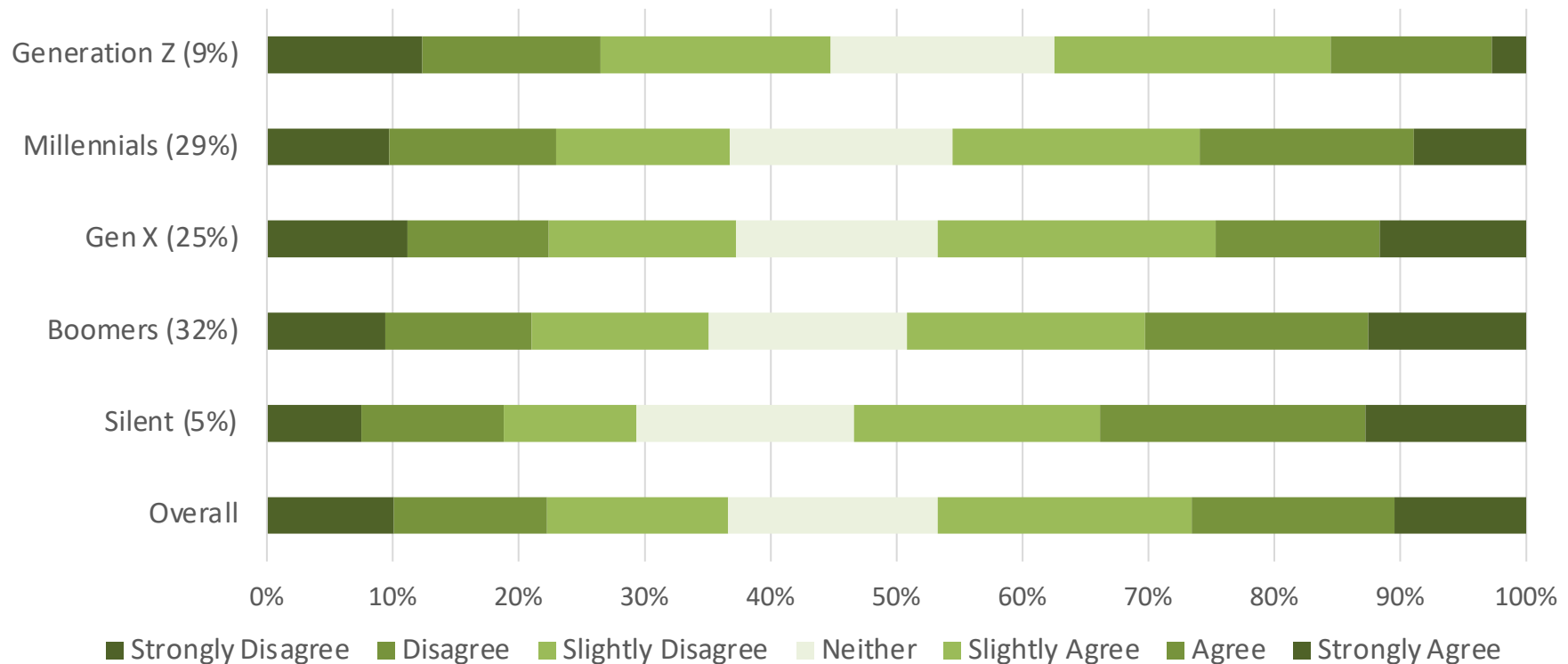
Statement: Canada is already doing its fair share in addressing climate change

Climate Change Performance: Region



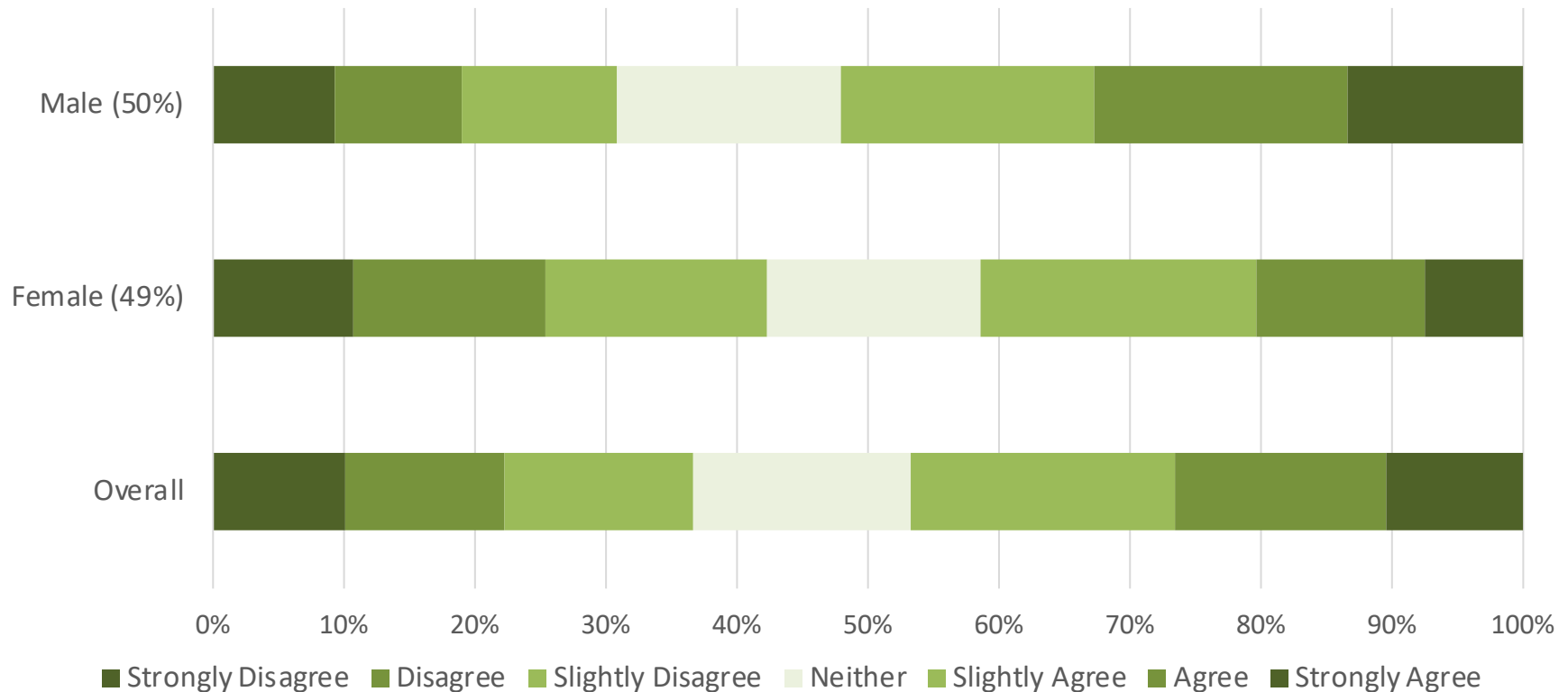
Statement: Canada is already doing its fair share in addressing climate change

Climate Change Performance: Age



Statement: Canada is already doing its fair share in addressing climate change

Climate Change Performance: Gender



Statement: Canada is already doing its fair share in addressing climate change

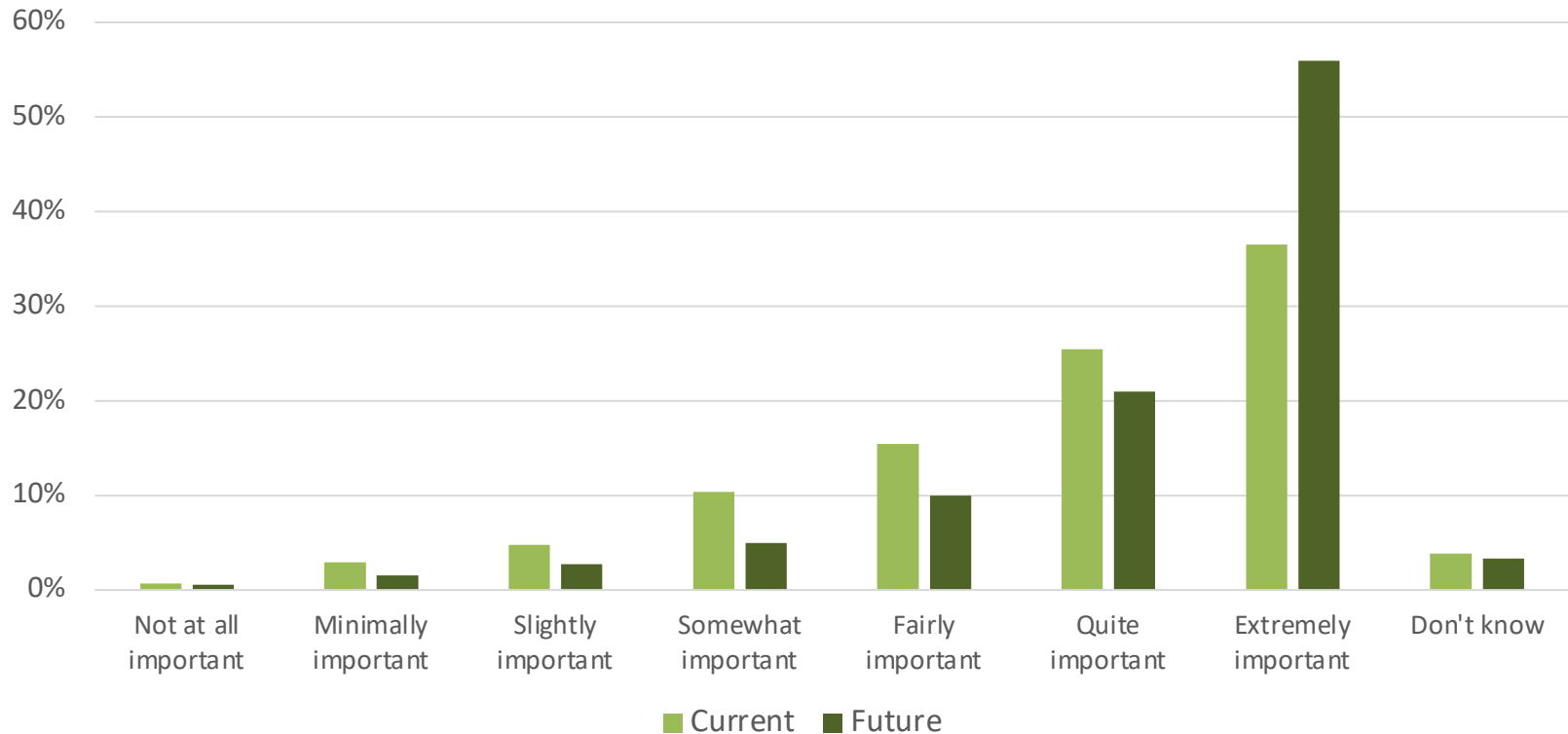
Renewables and Nuclear Energy



Positive Energy asked Canadians for their views on the importance, cost, benefits and potential of renewables (wind, solar and hydro) and nuclear energy.

Agreement on the economic importance of renewables is overwhelming in Canada across all demographic lines. Canadians are largely fragmented on nuclear, with particularly strong opposition in Québec.

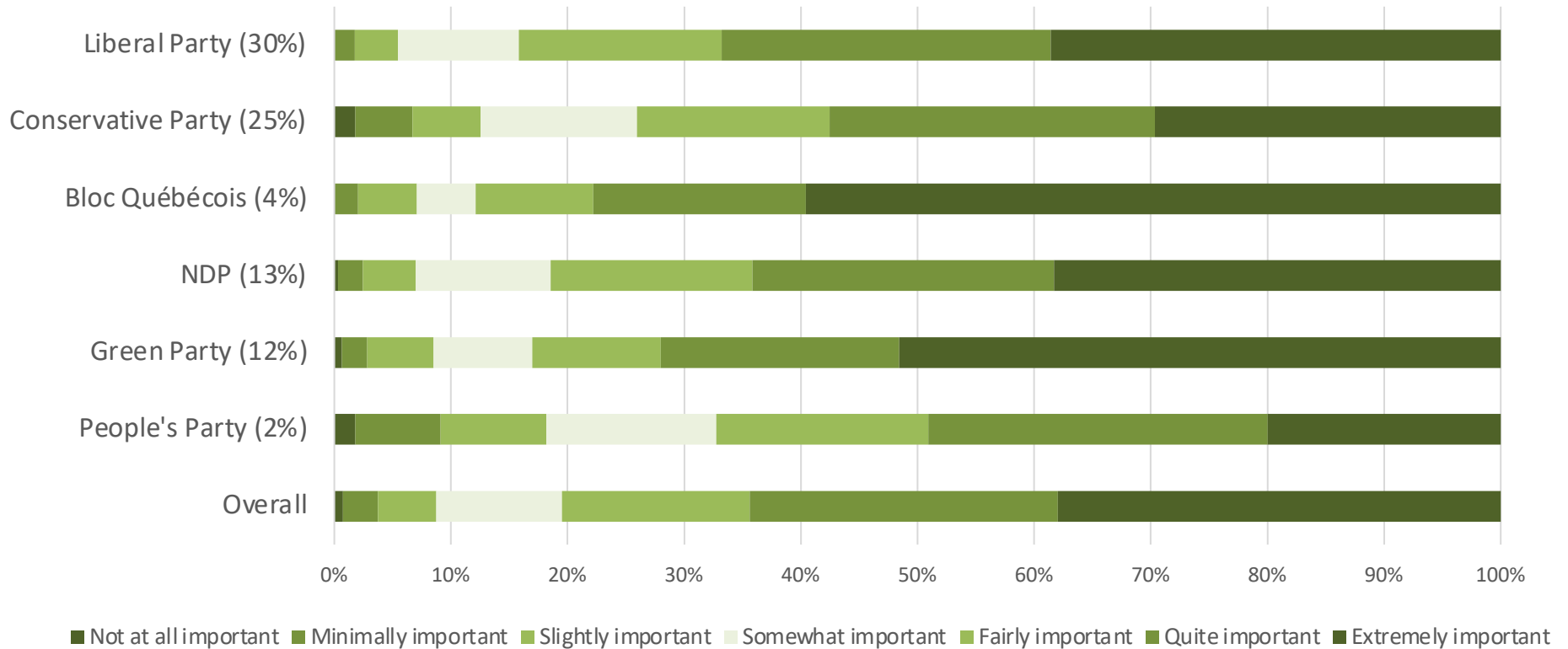
Importance of Renewables



Statement: How important is the renewable sector to Canada's (current/future) economy?

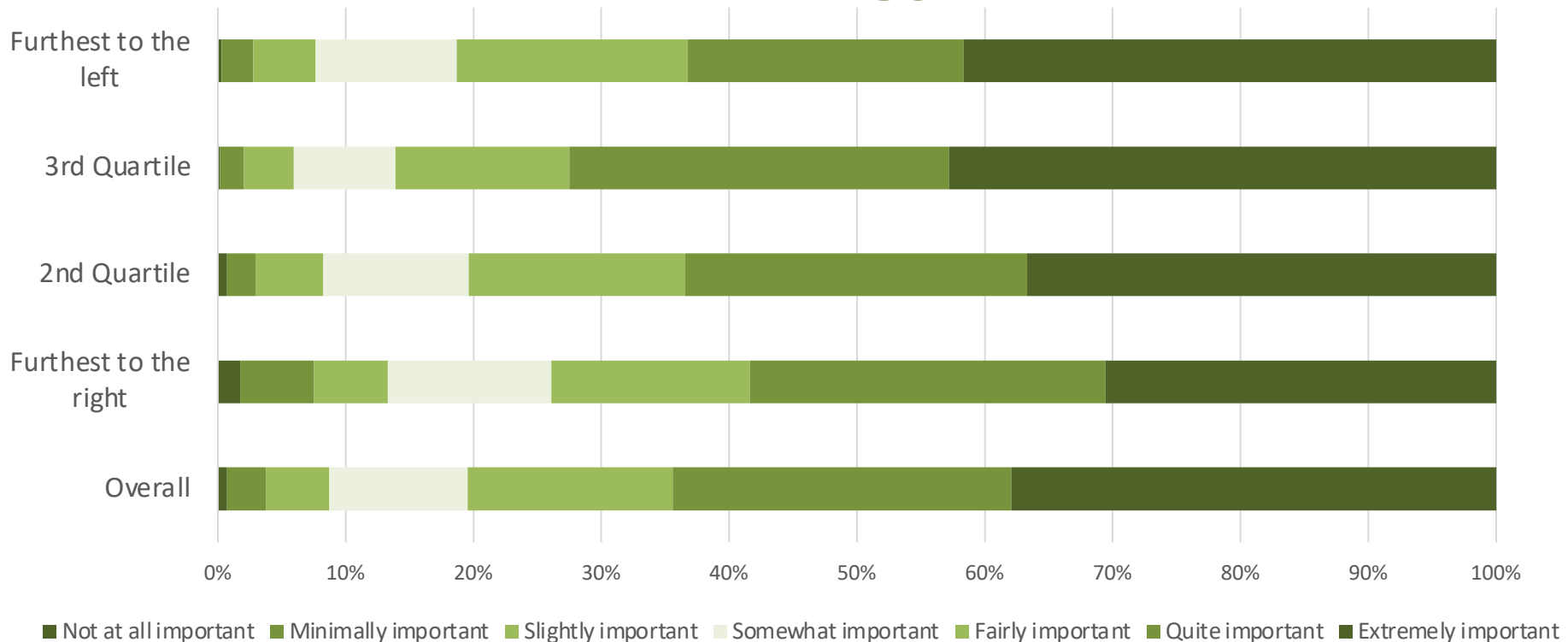


Current Importance of Renewables: Party



Statement: How important is the renewable (hydro, wind, solar) sector to Canada's current economy?

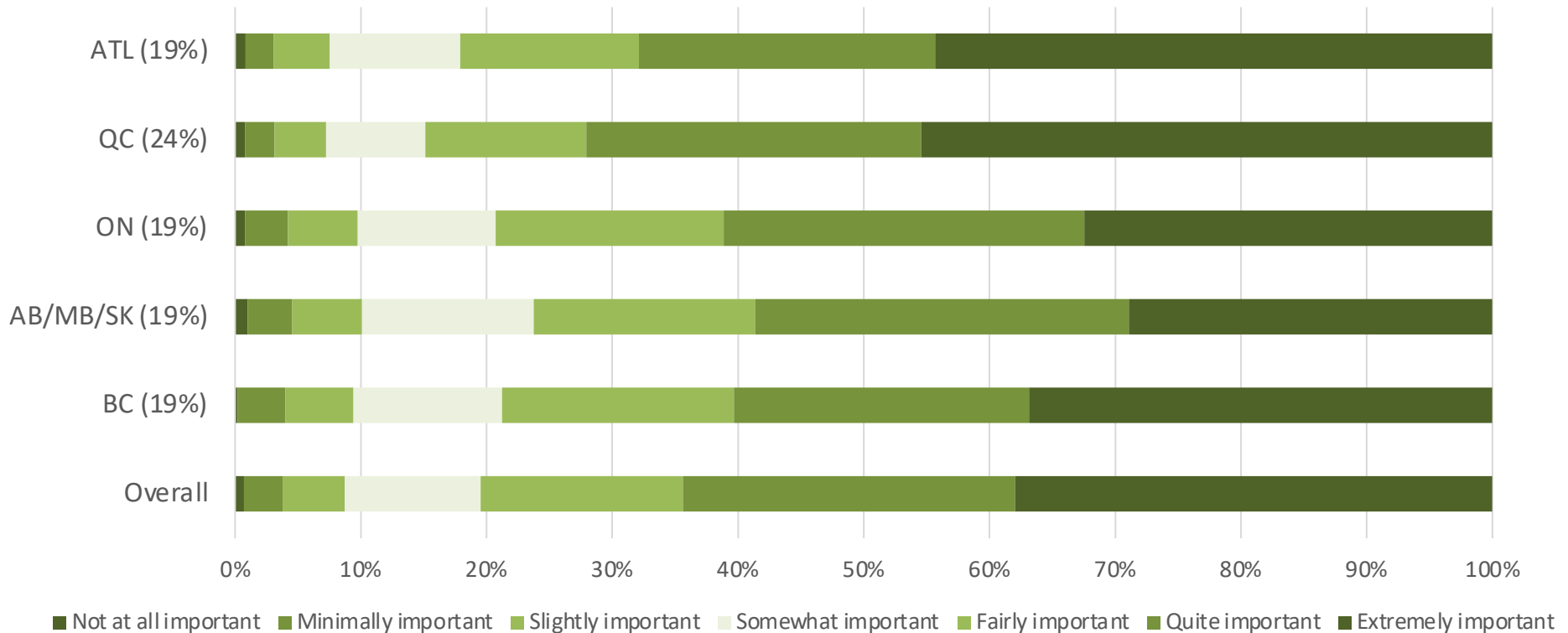
Current Importance of Renewables: Ideology



Statement: How important is the renewable (hydro, wind, solar) sector to Canada's current economy?

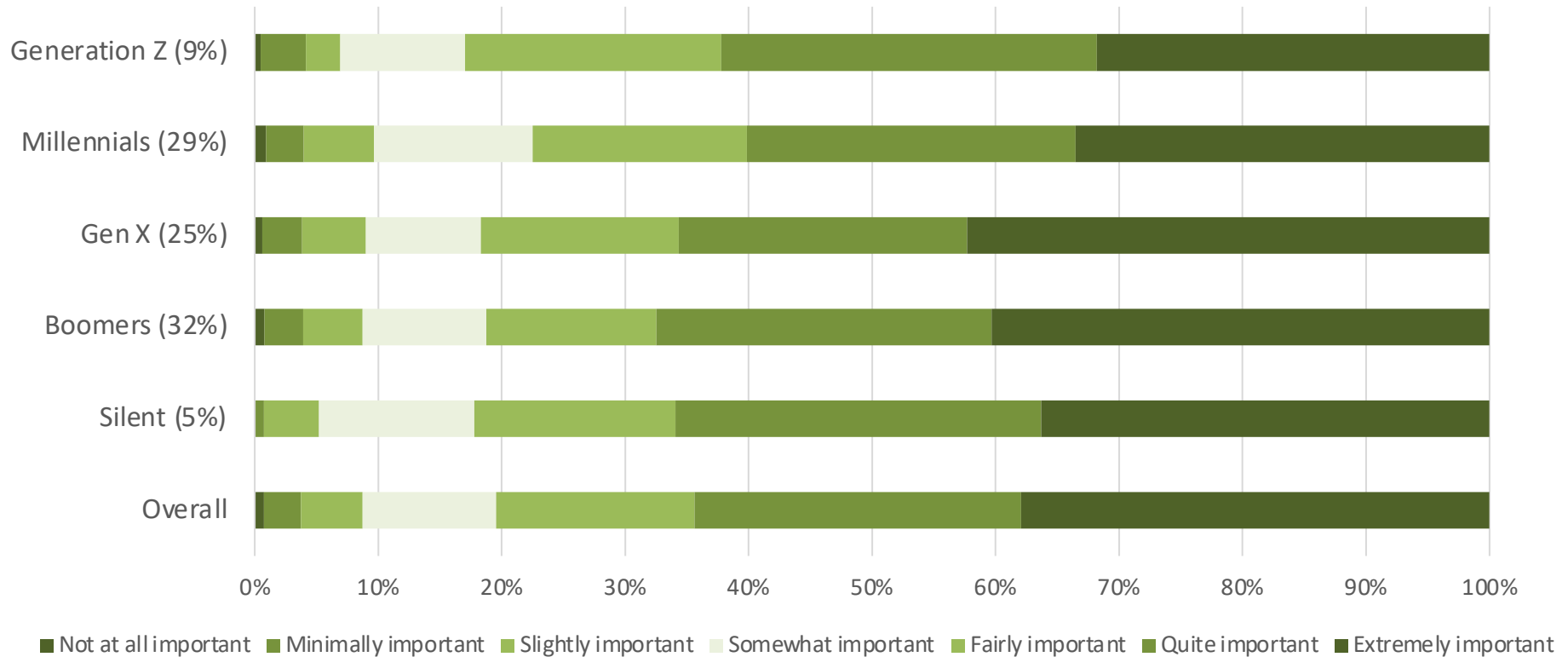


Current Importance of Renewables: Region



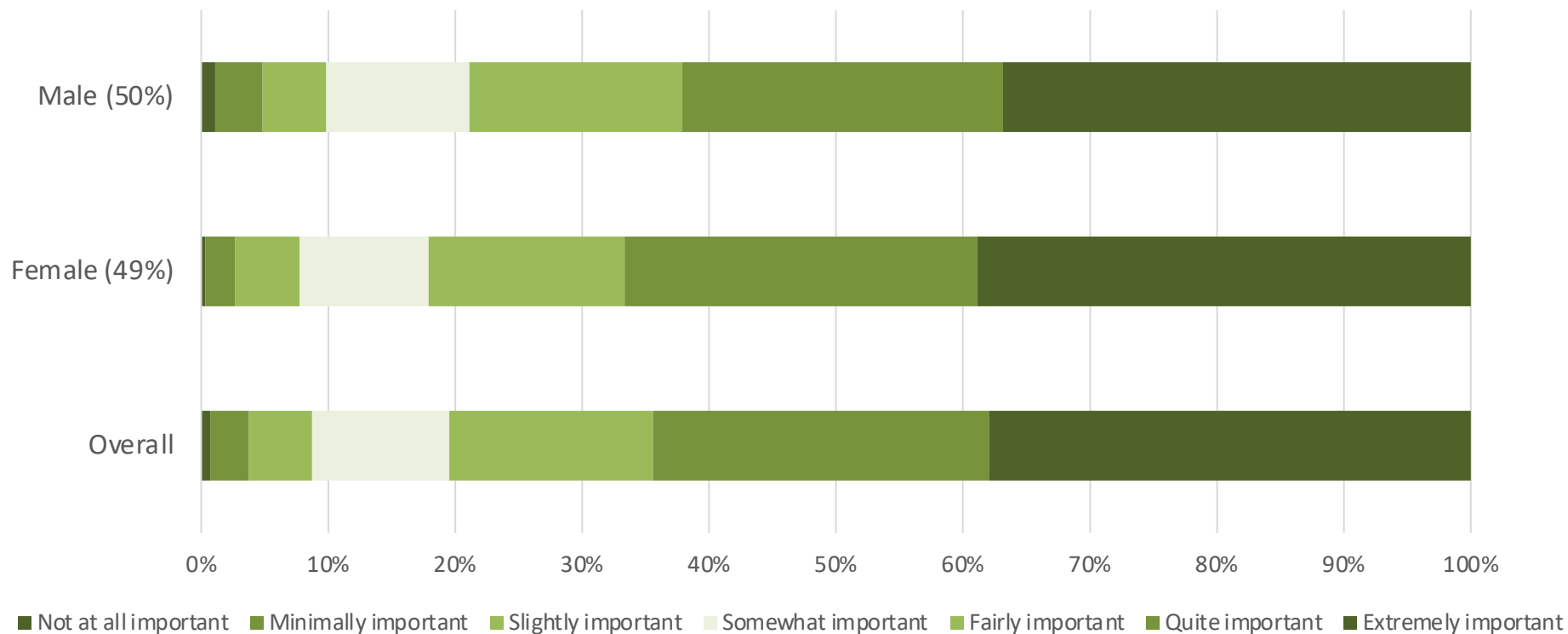
Statement: How important is the renewable (hydro, wind, solar) sector to Canada's current economy?

Current Importance of Renewables: Age



Statement: How important is the renewable (hydro, wind, solar) sector to Canada's current economy?

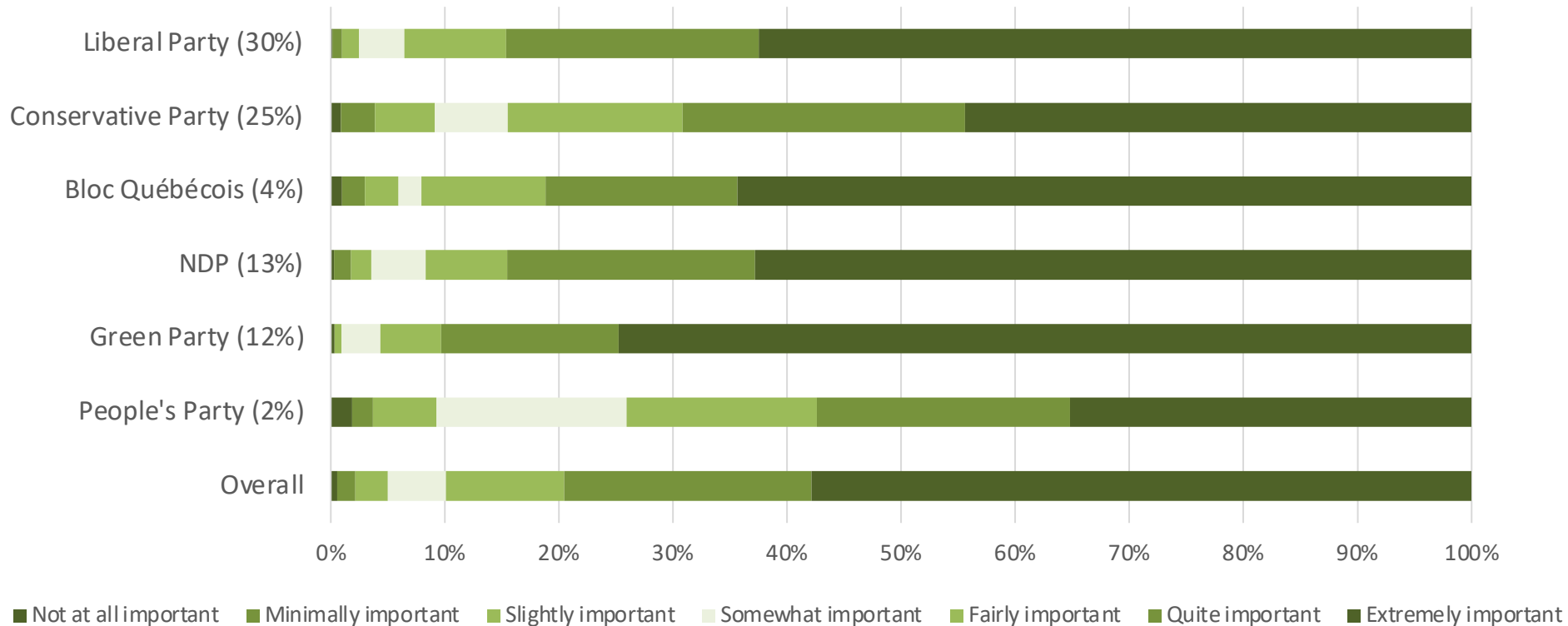
Current Importance of Renewables: Gender



Statement: How important is the renewable (hydro, wind, solar) sector to Canada's current economy?

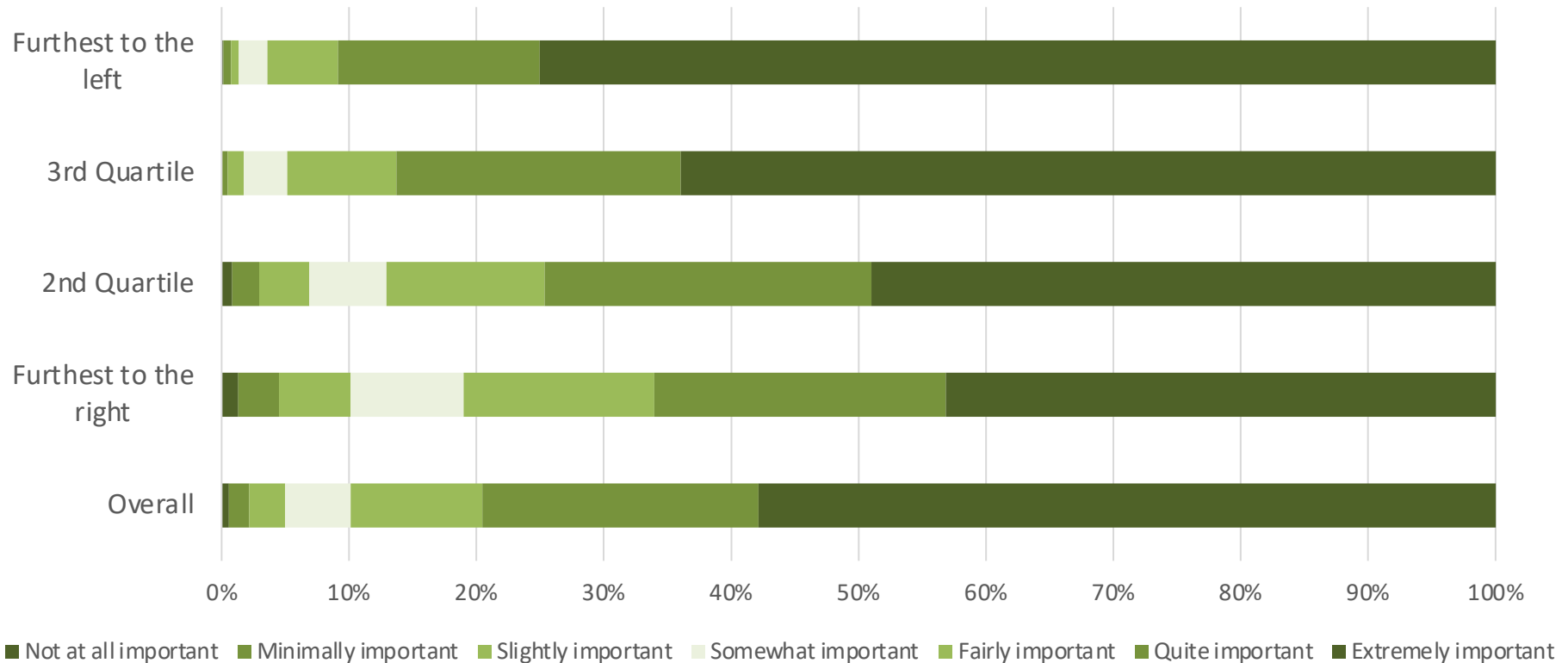


Future Importance of Renewables: Party



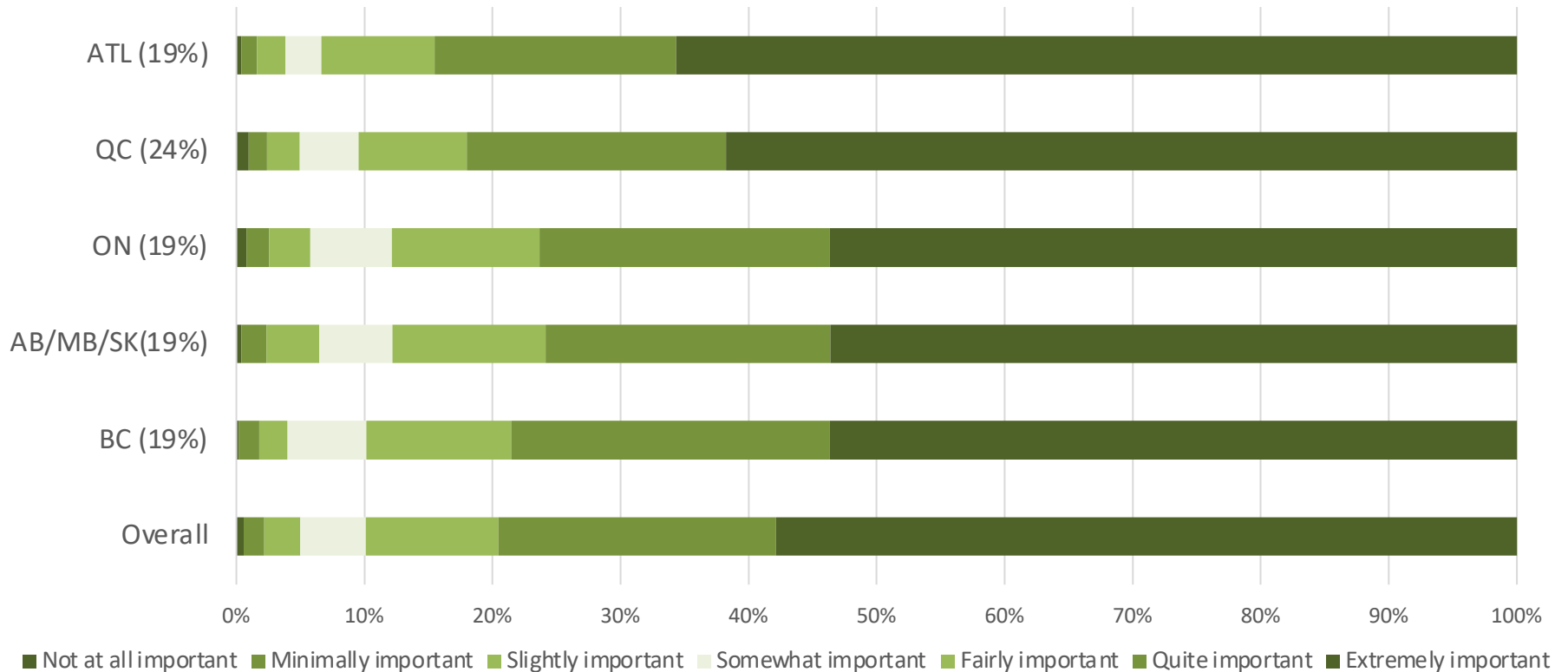
Statement: How important is the renewable (hydro, wind, solar) sector to Canada's future economy?

Future Importance of Renewables: Ideology



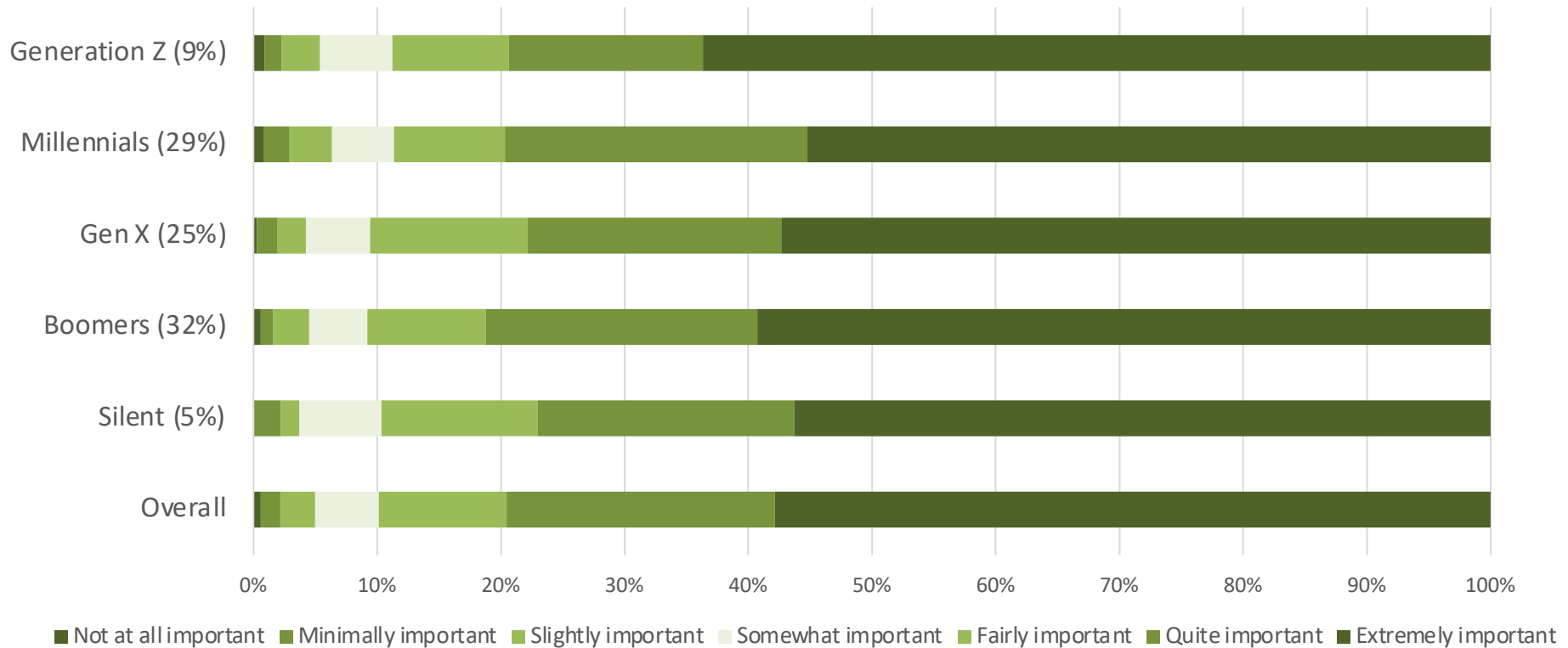
Statement: How important is the renewable (hydro, wind, solar) sector to Canada's future economy?

Future Importance of Renewables: Region



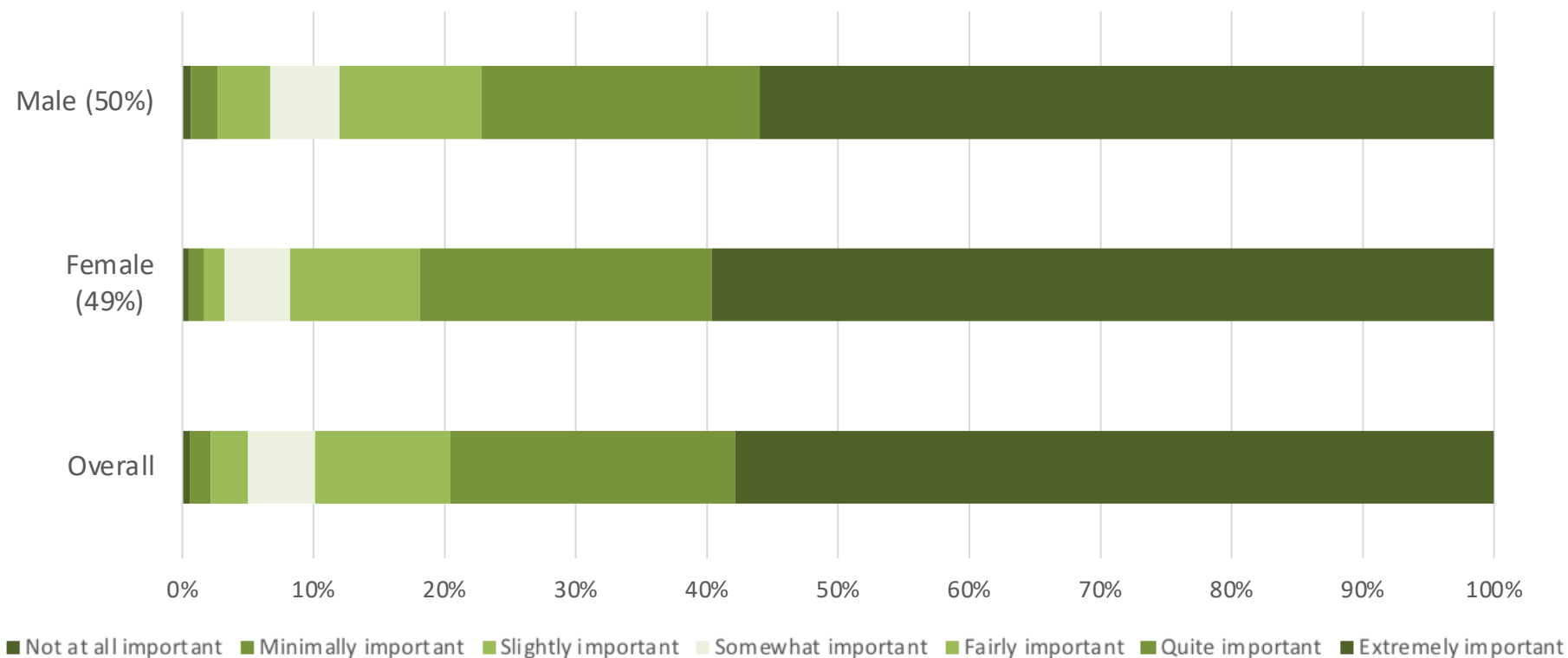
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Future Importance of Renewables: Age



Statement: How important is the renewable (hydro, wind, solar) sector to Canada's future economy?

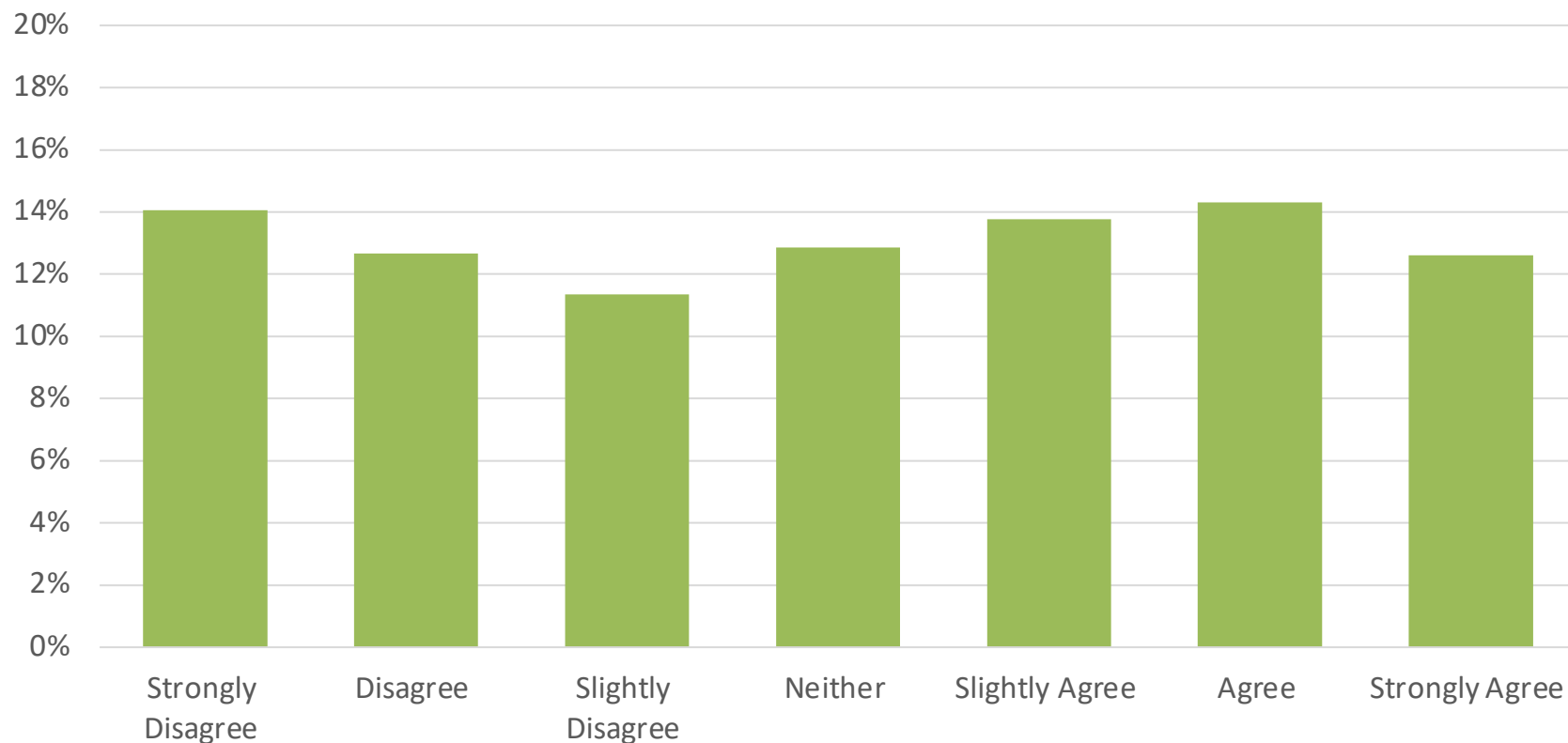
Future Importance of Renewables: Gender



Statement: How important is the renewable (hydro, wind, solar) sector to Canada's future economy?



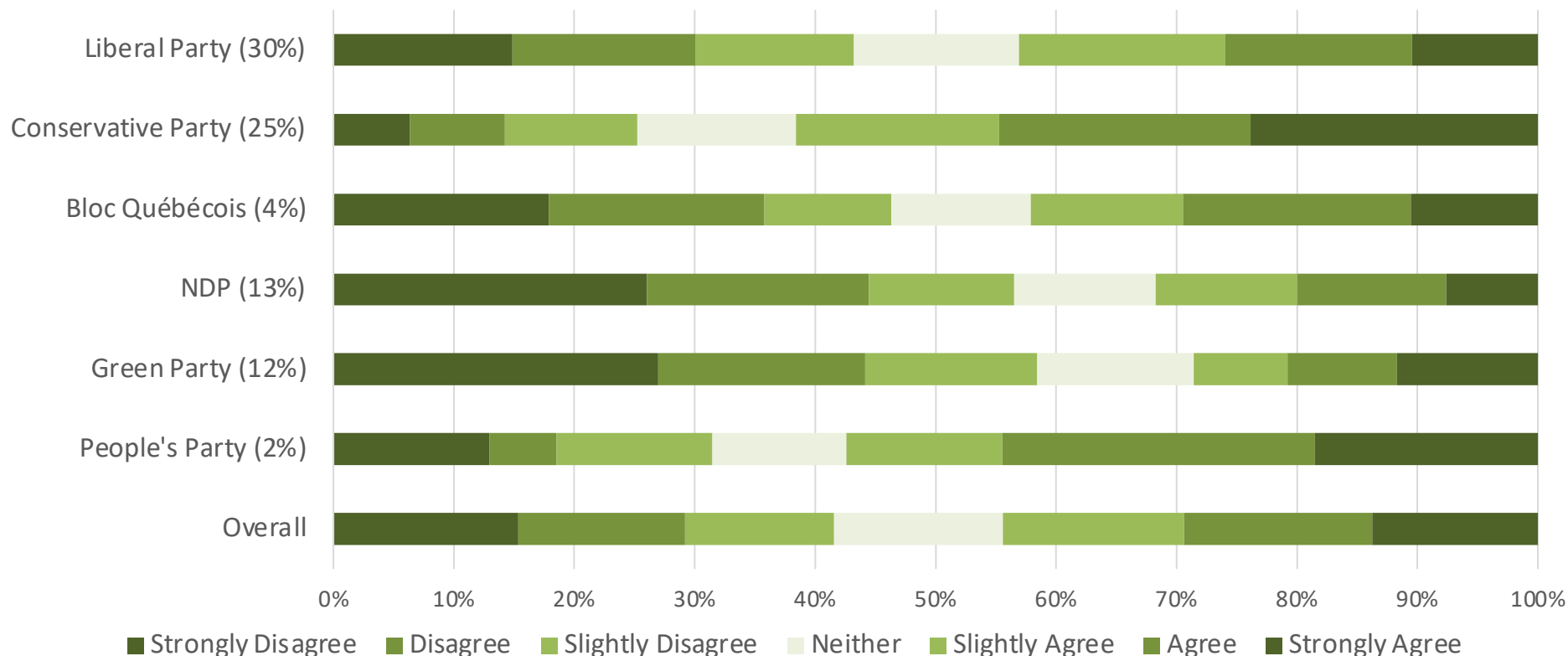
Potential of Renewables



Statement: It's impossible to power an advanced economy like Canada's using only renewable energy (e.g., hydro, wind, solar)



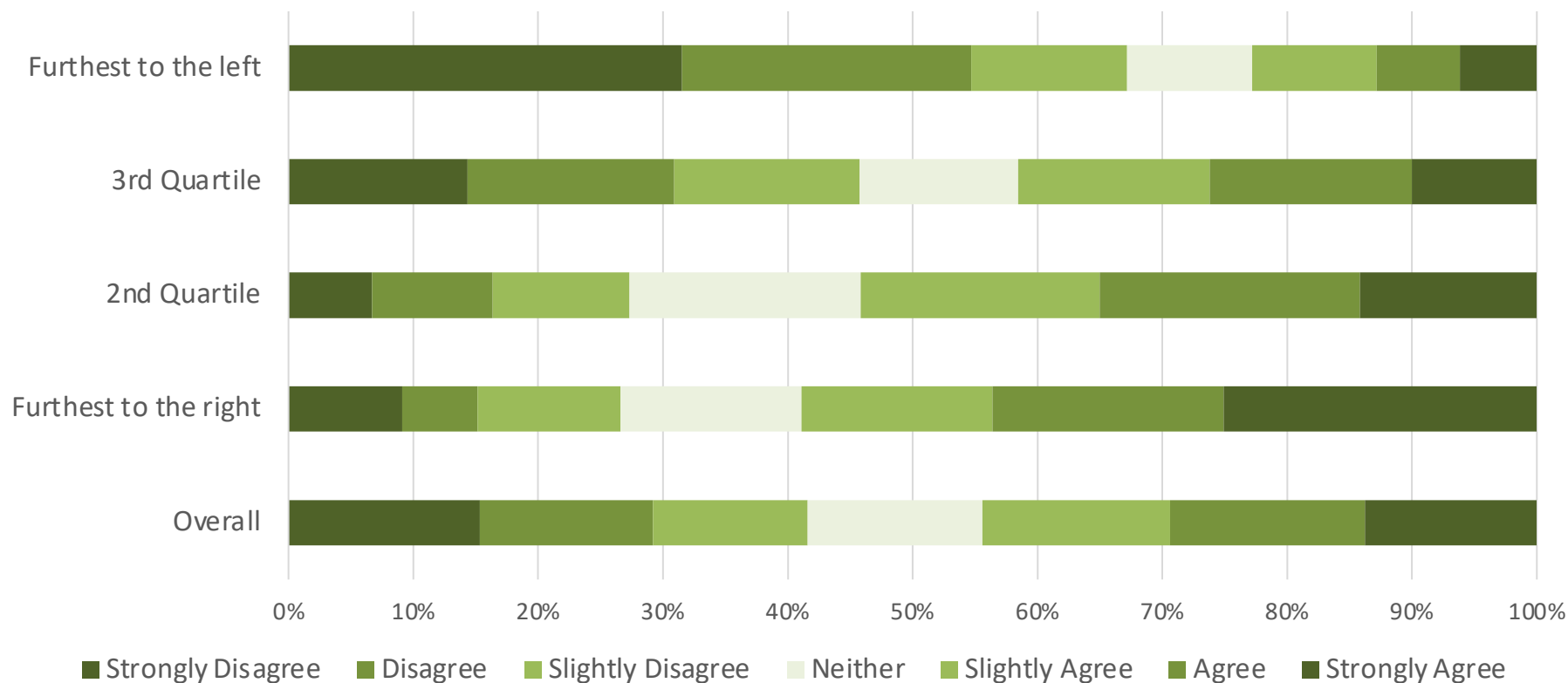
Potential of Renewables: Party



Statement: It's impossible to power an advanced economy like Canada's using only renewable energy (e.g., hydro, wind, solar)



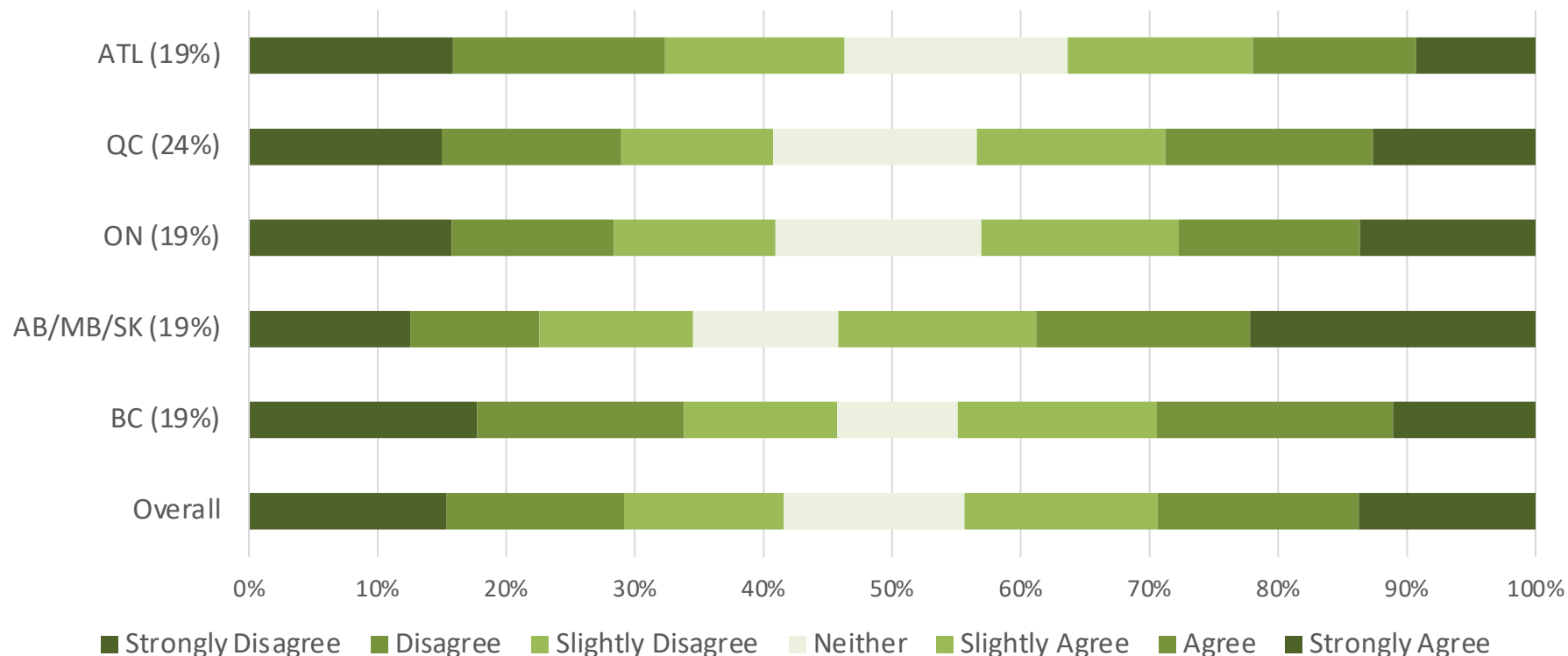
Potential of Renewables: Ideology



Statement: It's impossible to power an advanced economy like Canada's using only renewable energy (e.g., hydro, wind, solar)



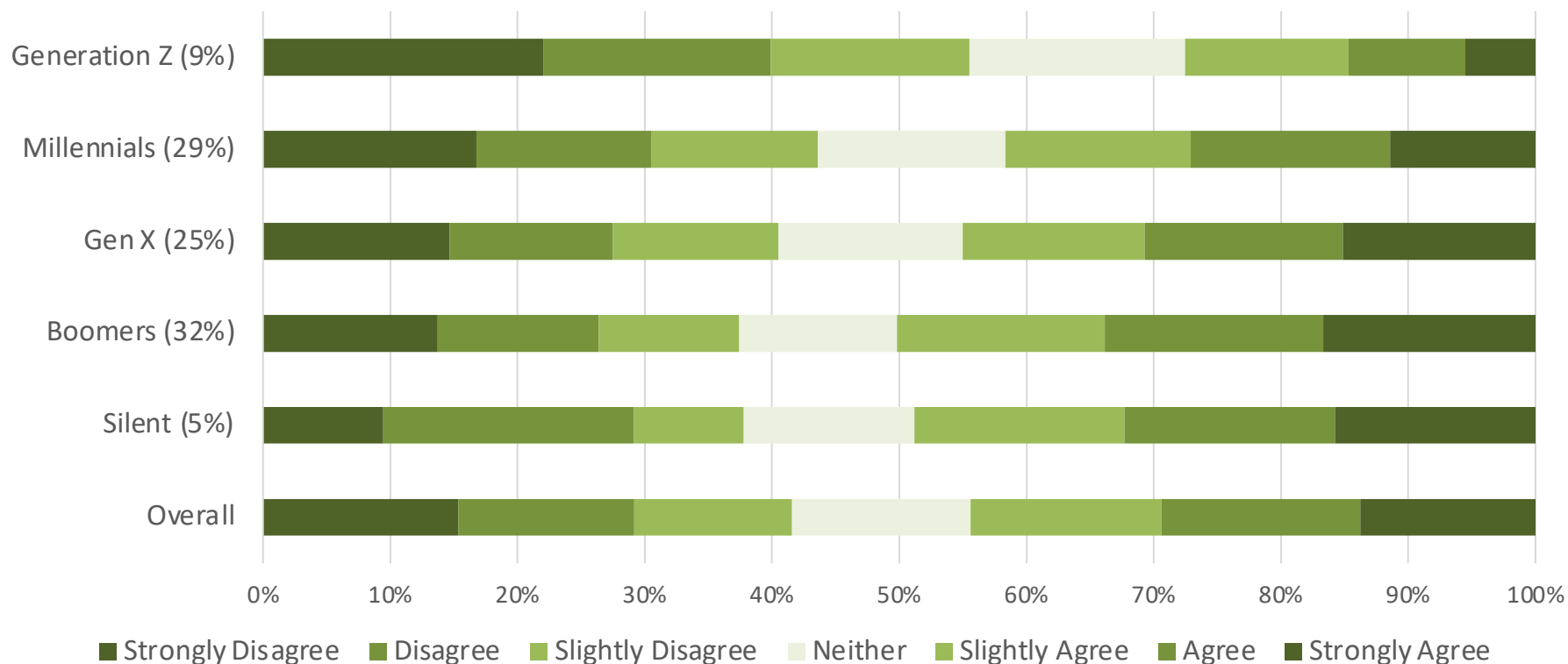
Potential of Renewables: Region



Statement: It's impossible to power an advanced economy like Canada's using only renewable energy (e.g., hydro, wind, solar)



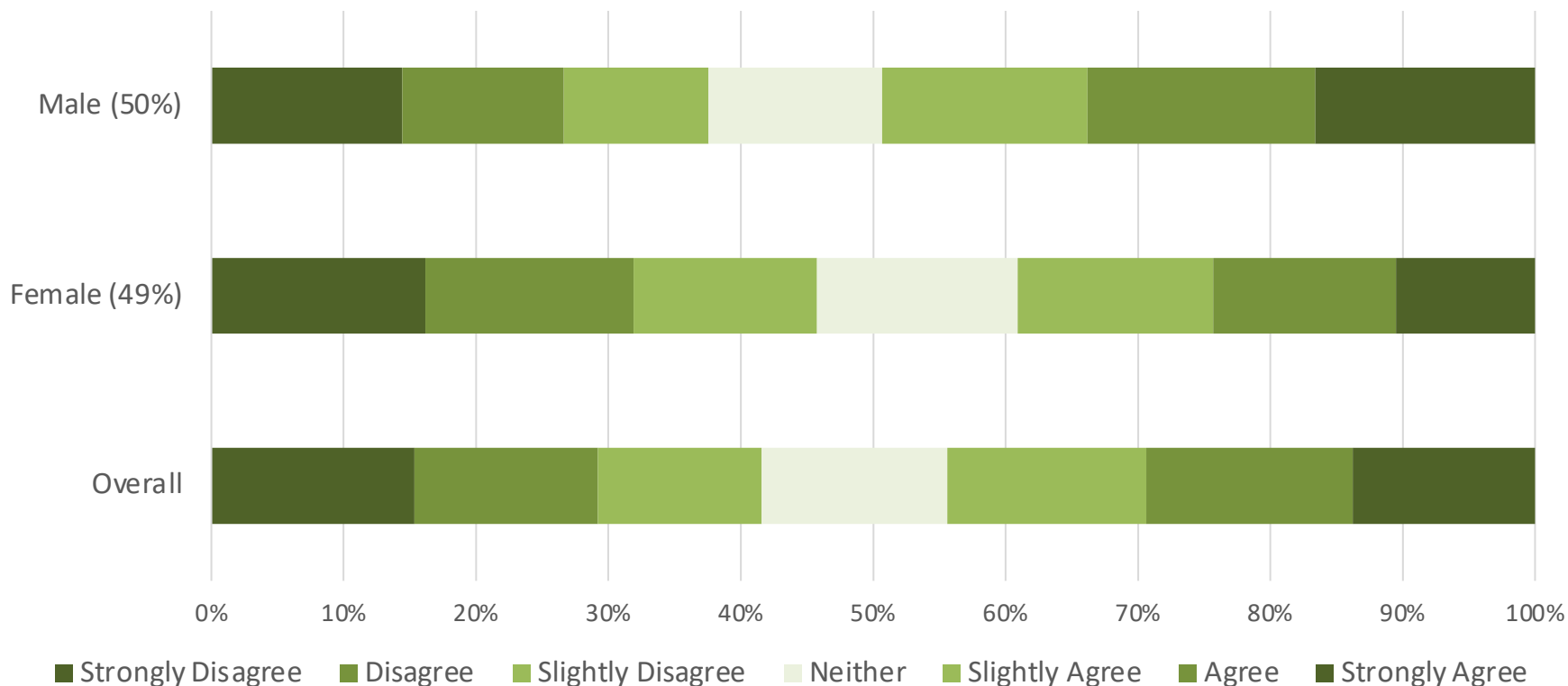
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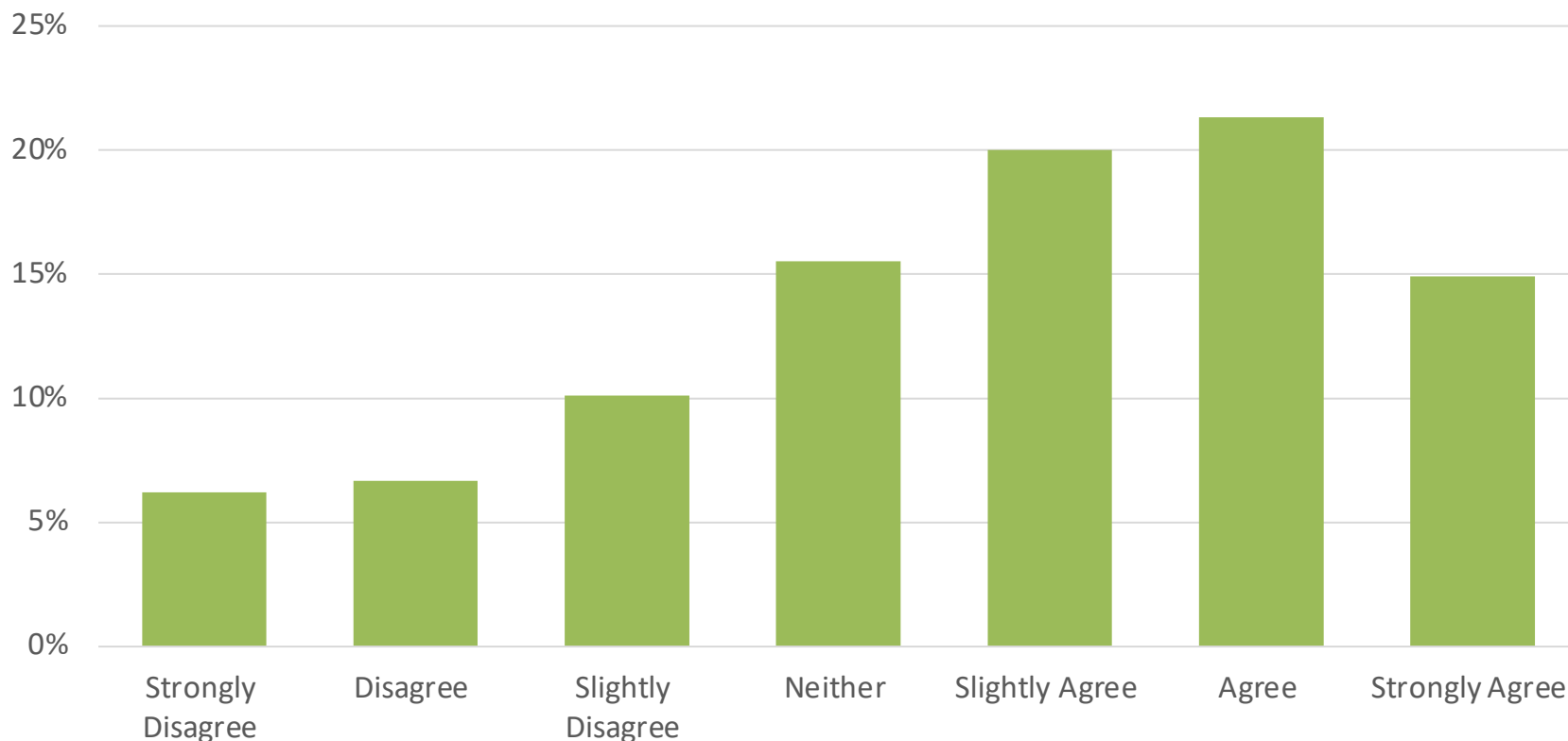
Potential of Renewables: Gender



Statement: It's impossible to power an advanced economy like Canada's using only renewable energy (e.g., hydro, wind, solar)



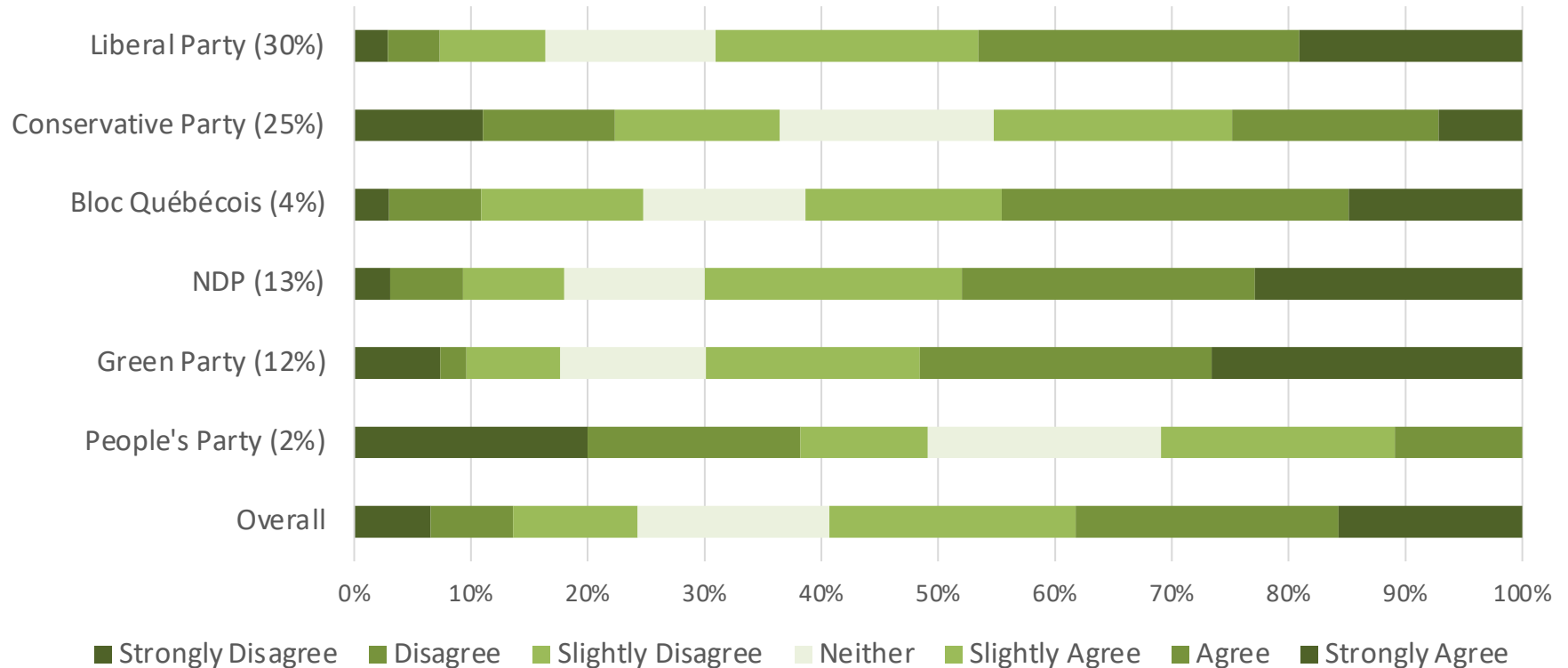
Costs and Benefits of Renewables



Statement: Canada needs to produce more renewable energy, even if it raises the cost of electricity for business and consumers

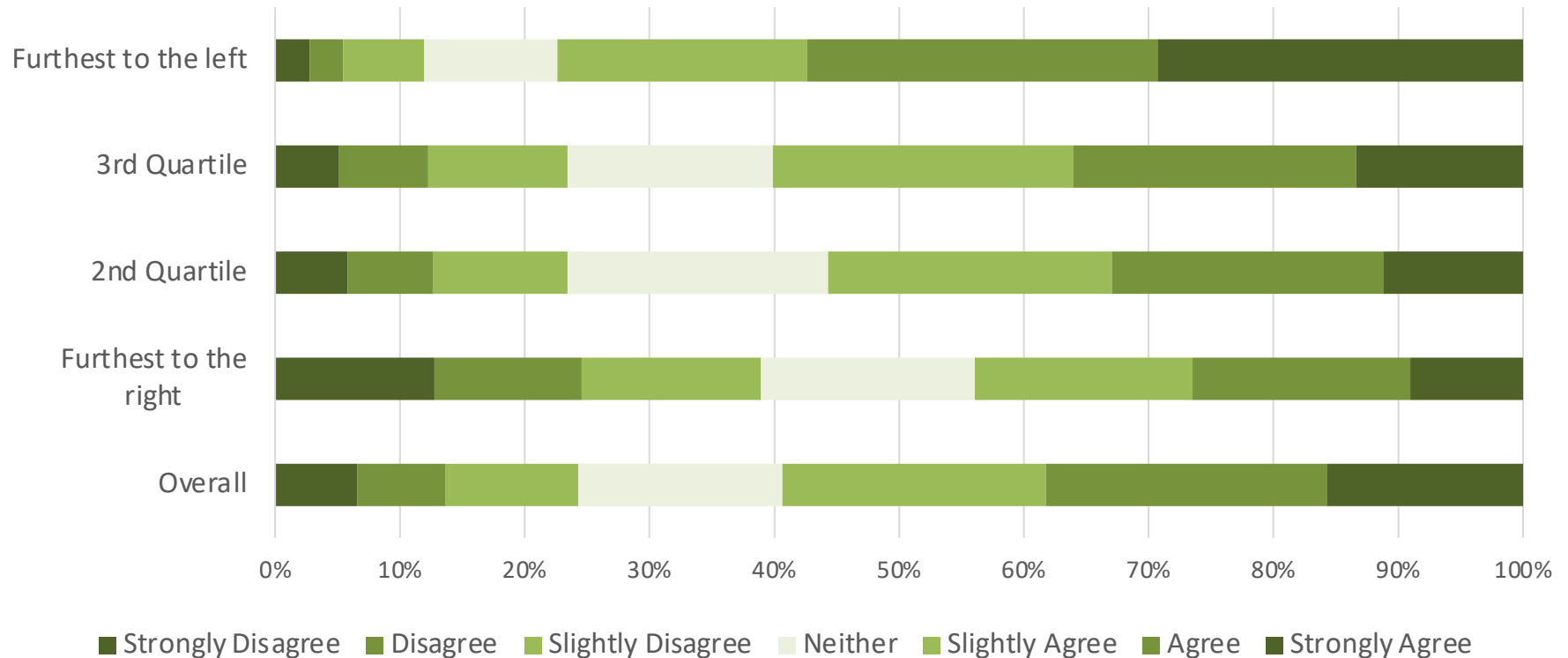


Costs and Benefits of Renewables: Party



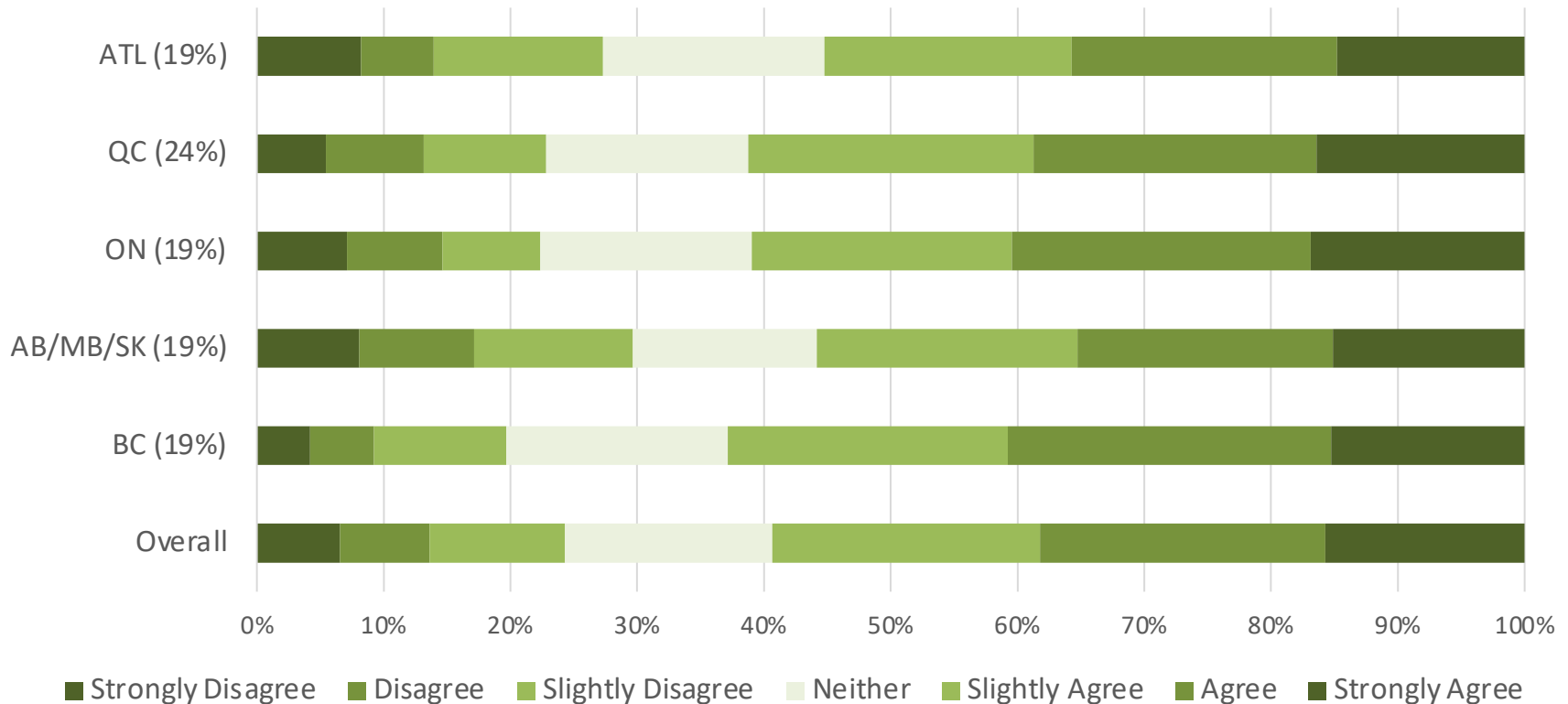
Statement: Canada needs to produce more renewable energy, even if it raises the cost of electricity for business and consumers

Costs and Benefits of Renewables: Ideology



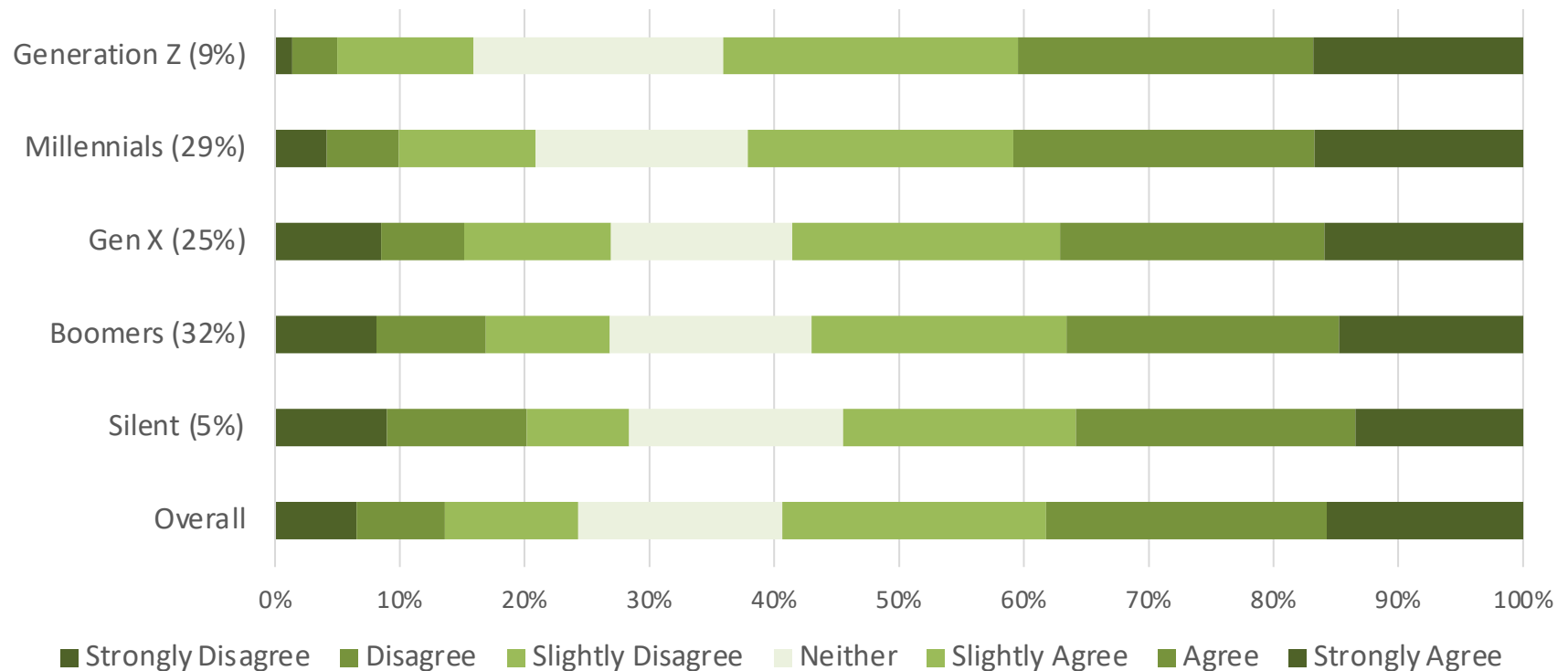
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Costs and Benefits of Renewables: Region



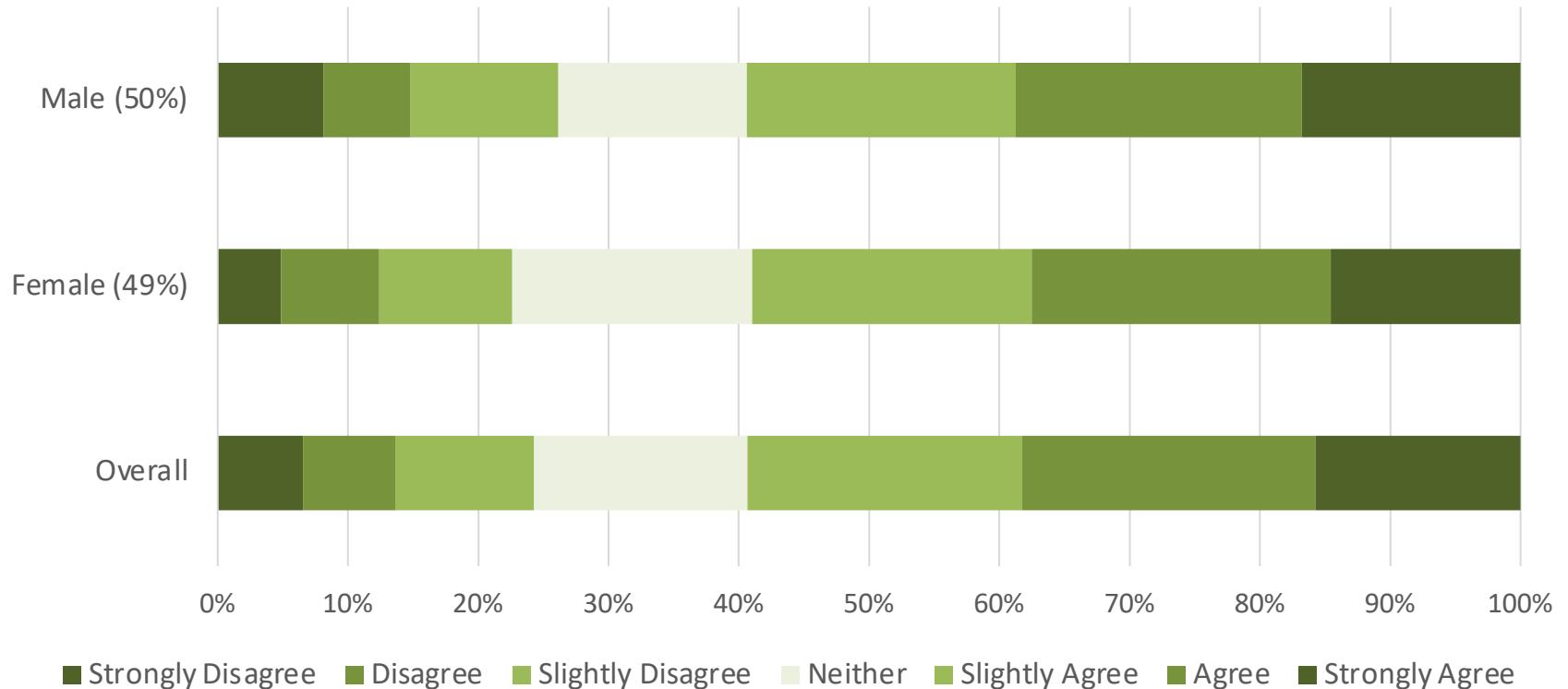
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Costs and Benefits of Renewables: Age



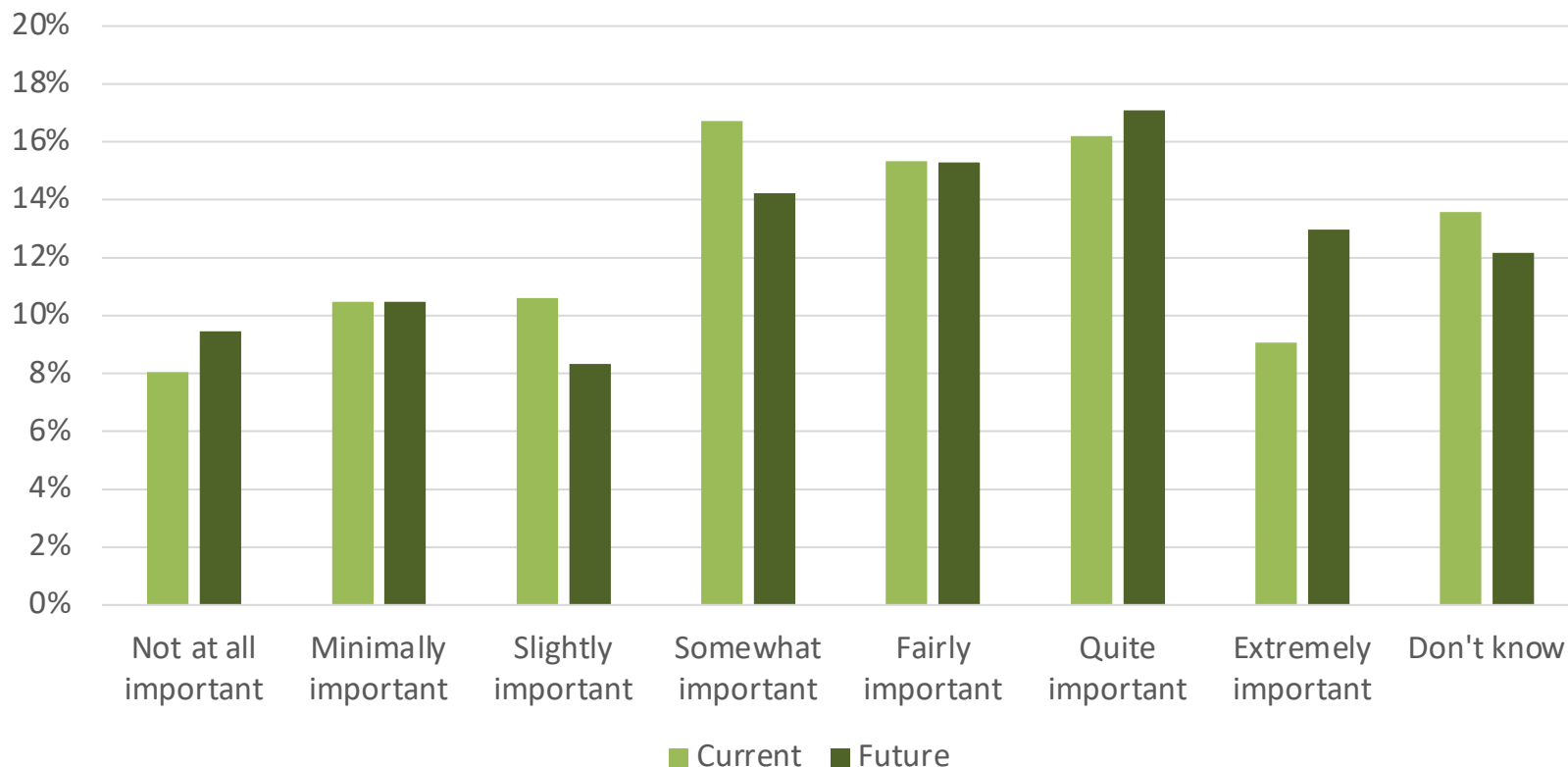
Statement: Canada needs to produce more renewable energy, even if it raises the cost of electricity for business and consumers

Costs and Benefits of Renewables: Gender



Statement: Canada needs to produce more renewable energy, even if it raises the cost of electricity for business and consumers

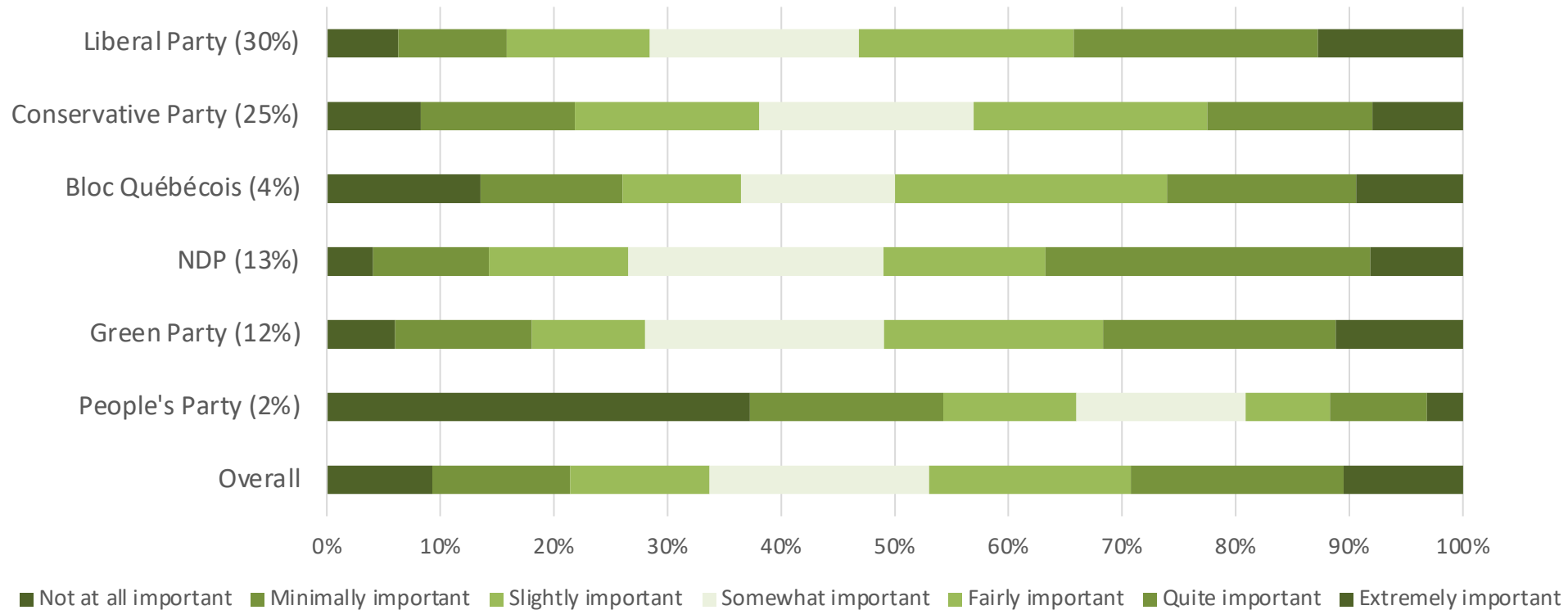
Importance of Nuclear



Statement: How important is the nuclear sector to Canada's (current/future) economy?

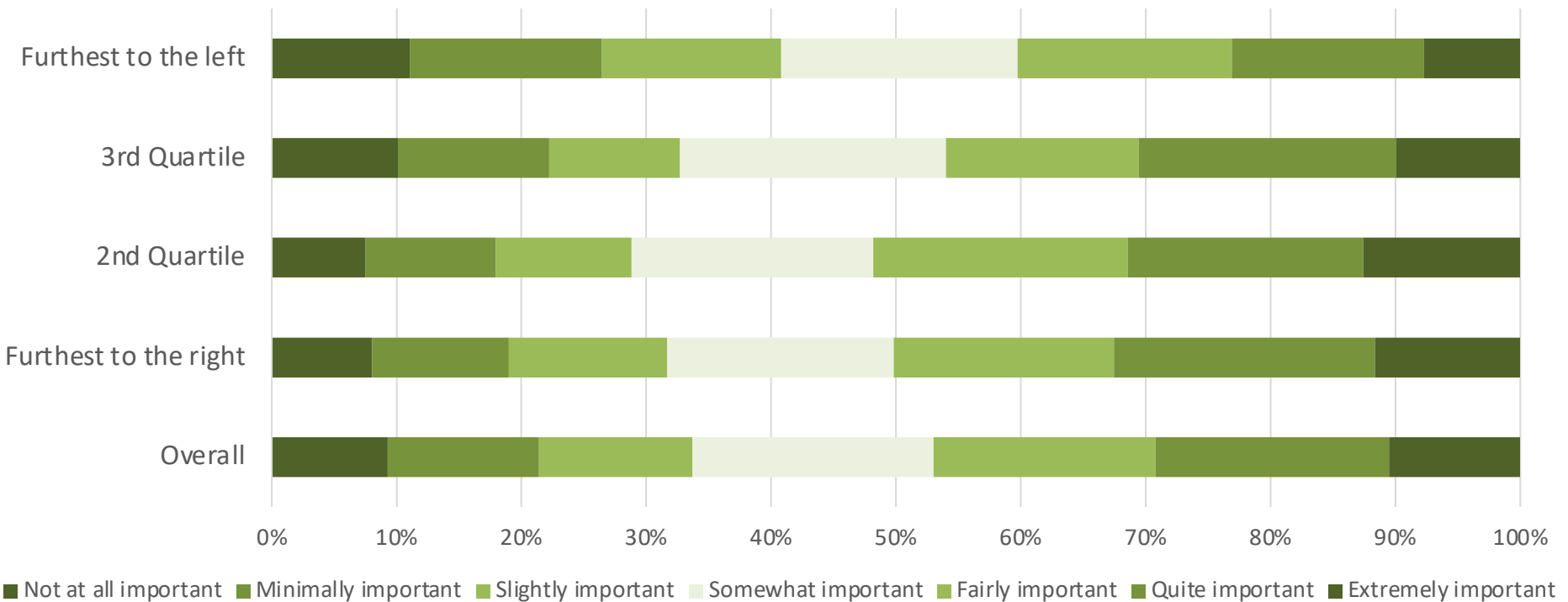


Current Importance of Nuclear: Party



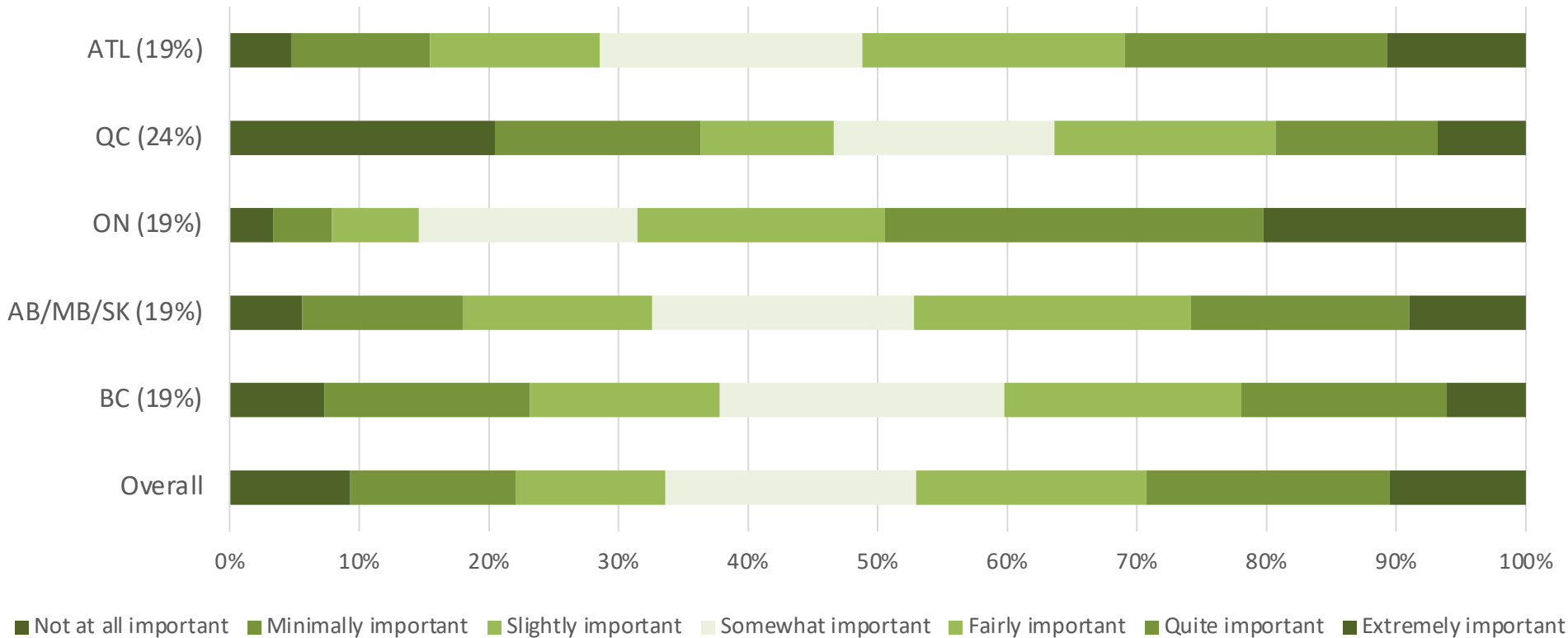
Statement: How important is the nuclear sector to Canada's current economy?

Current Importance of Nuclear: Ideology



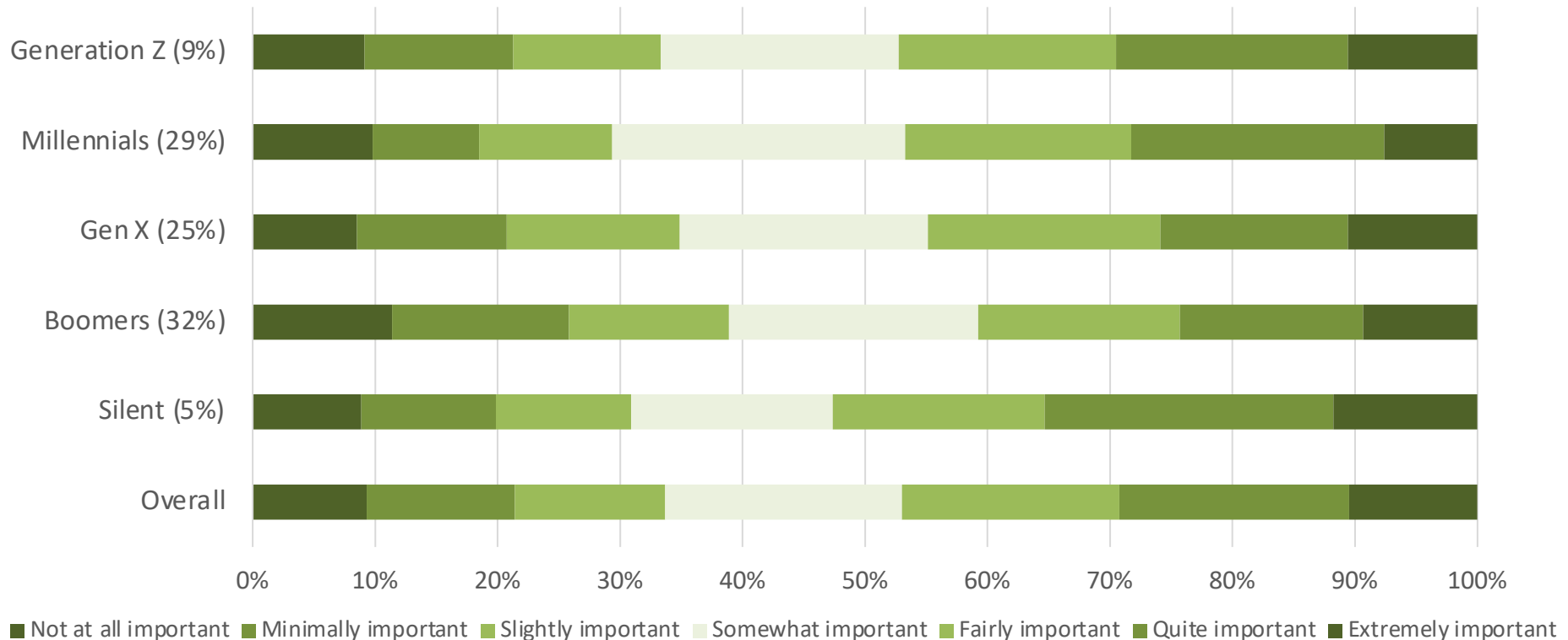
Statement: How important is the nuclear sector to Canada's current economy?

Current Importance of Nuclear: Region



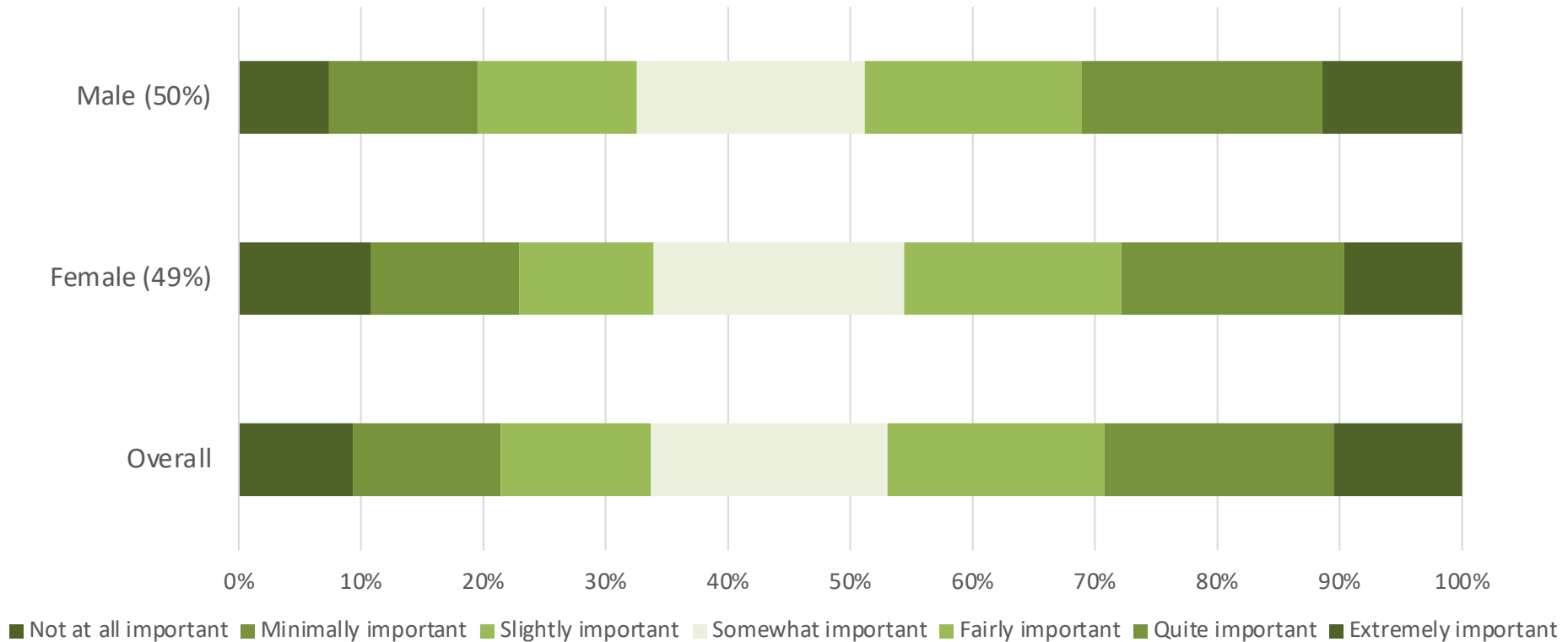
Statement: How important is the nuclear sector to Canada's current economy?

Current Importance of Nuclear: Age



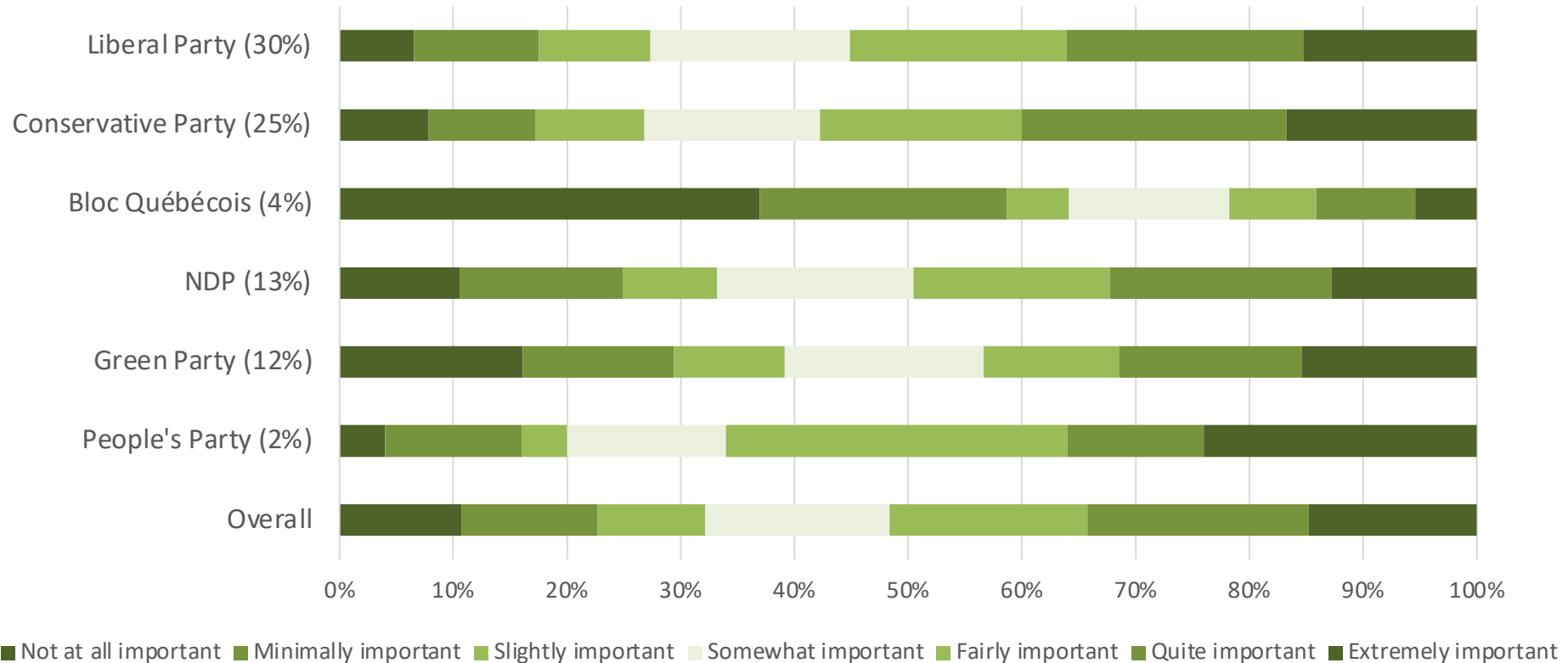
Statement: How important is the nuclear sector to Canada's current economy?

Current Importance of Nuclear: Gender



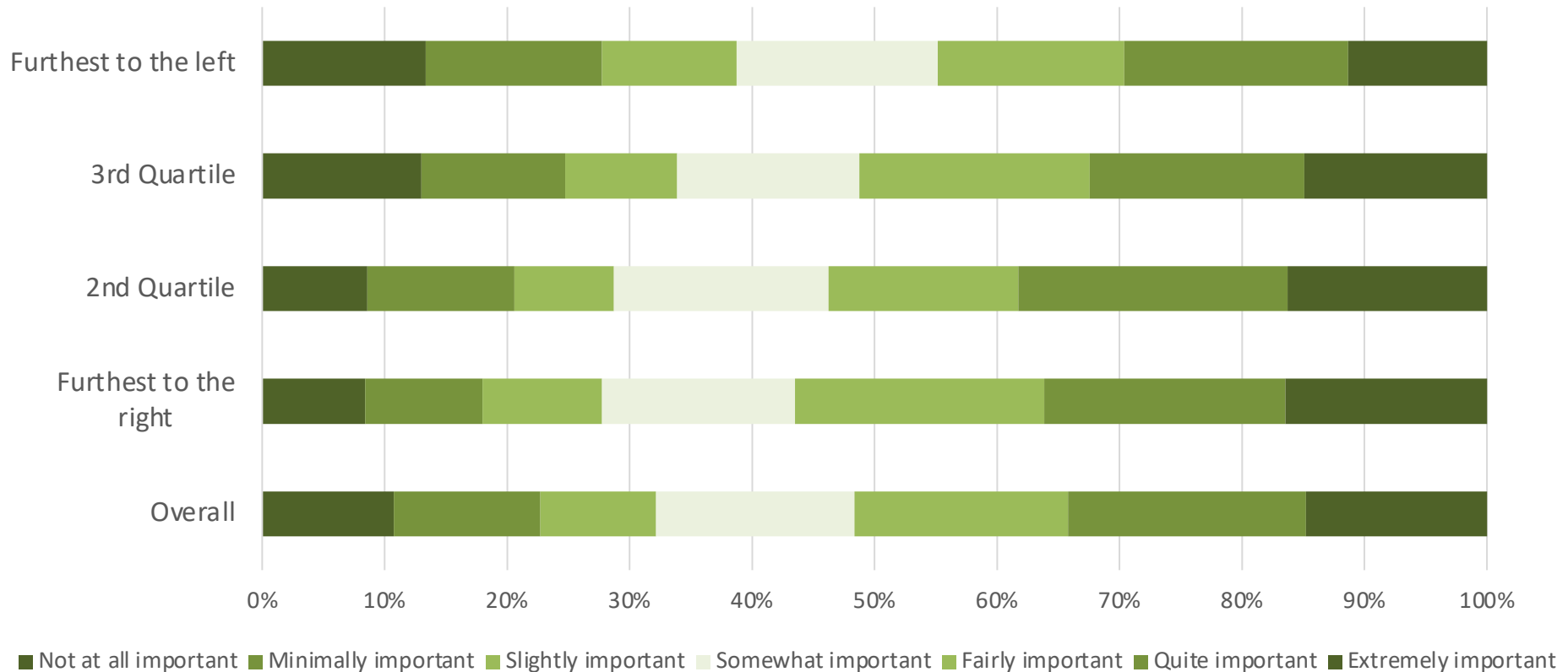
Statement: How important is the nuclear sector to Canada's current economy?

Future Importance of Nuclear: Party



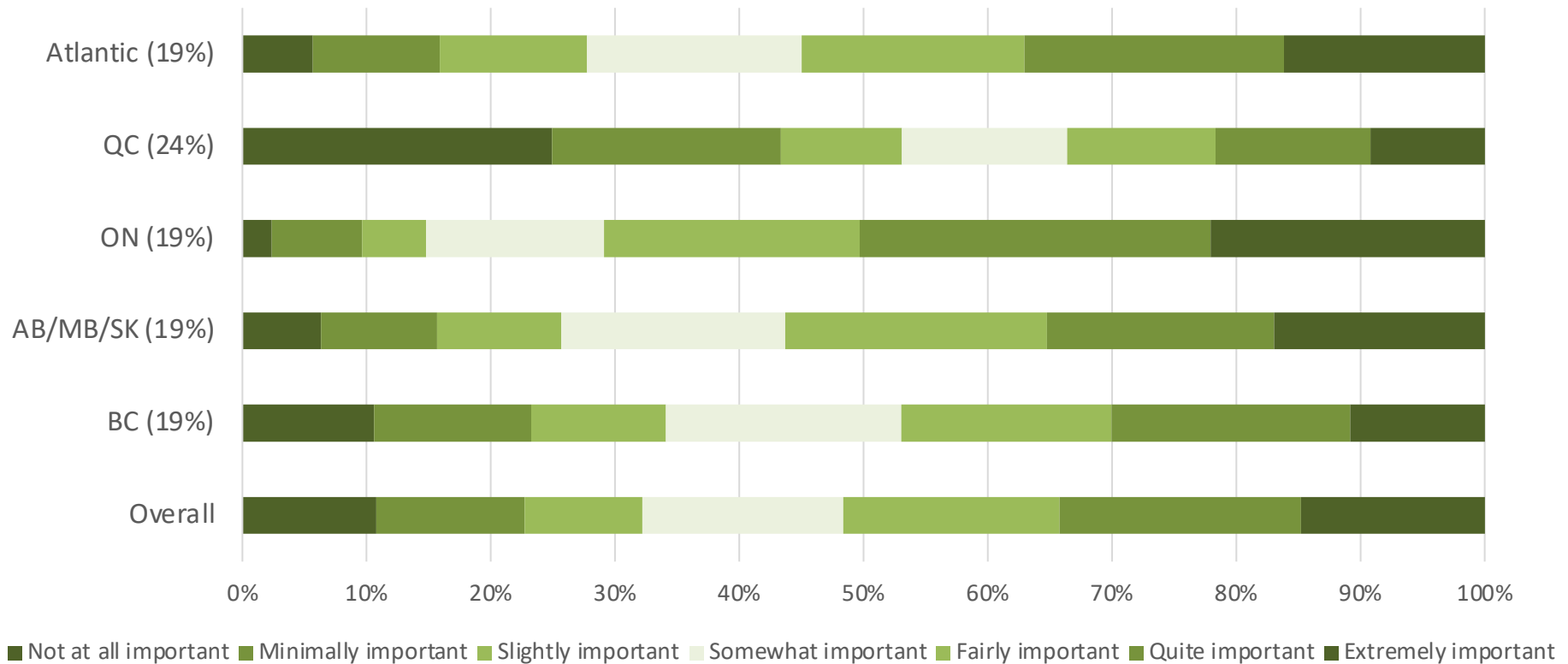
Statement: How important is the nuclear sector to Canada's future economy?

Future Importance of Nuclear: Ideology



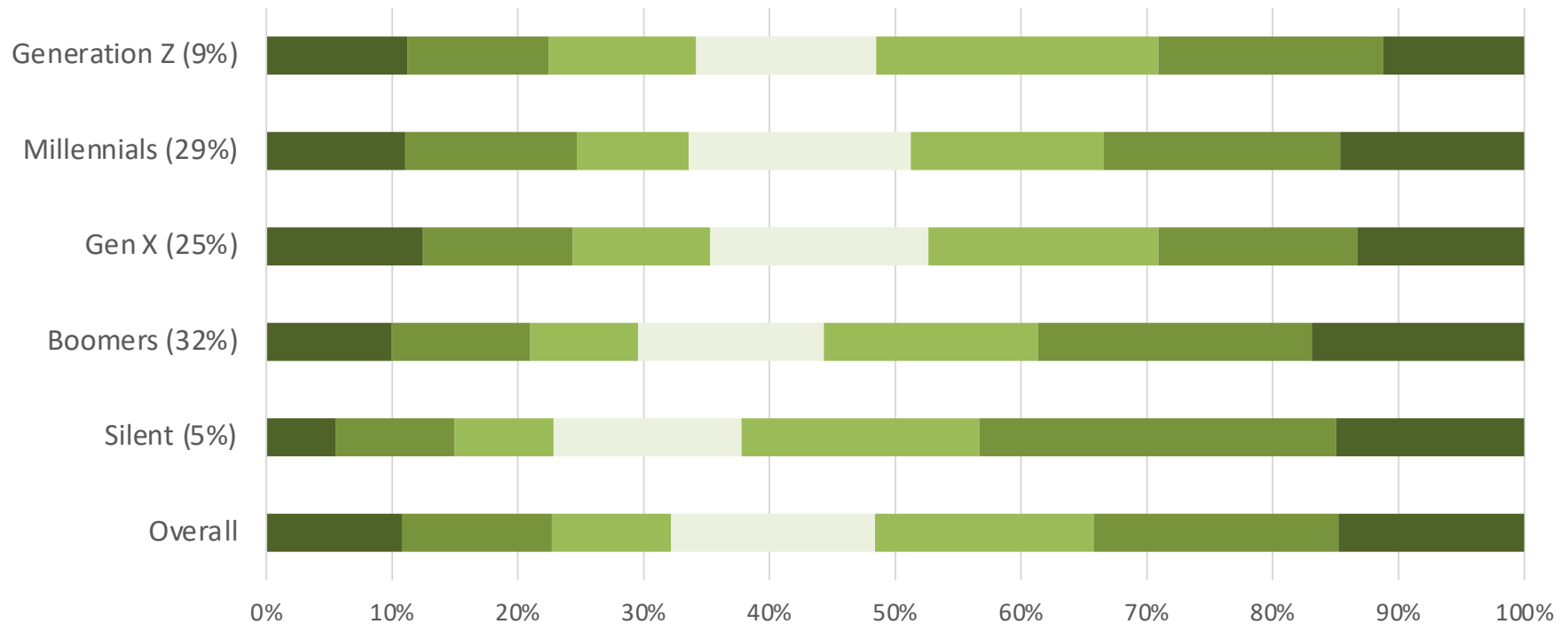
Statement: How important is the nuclear sector to Canada's future economy?

Future Importance of Nuclear: Region



Statement: How important is the nuclear sector to Canada's future economy?

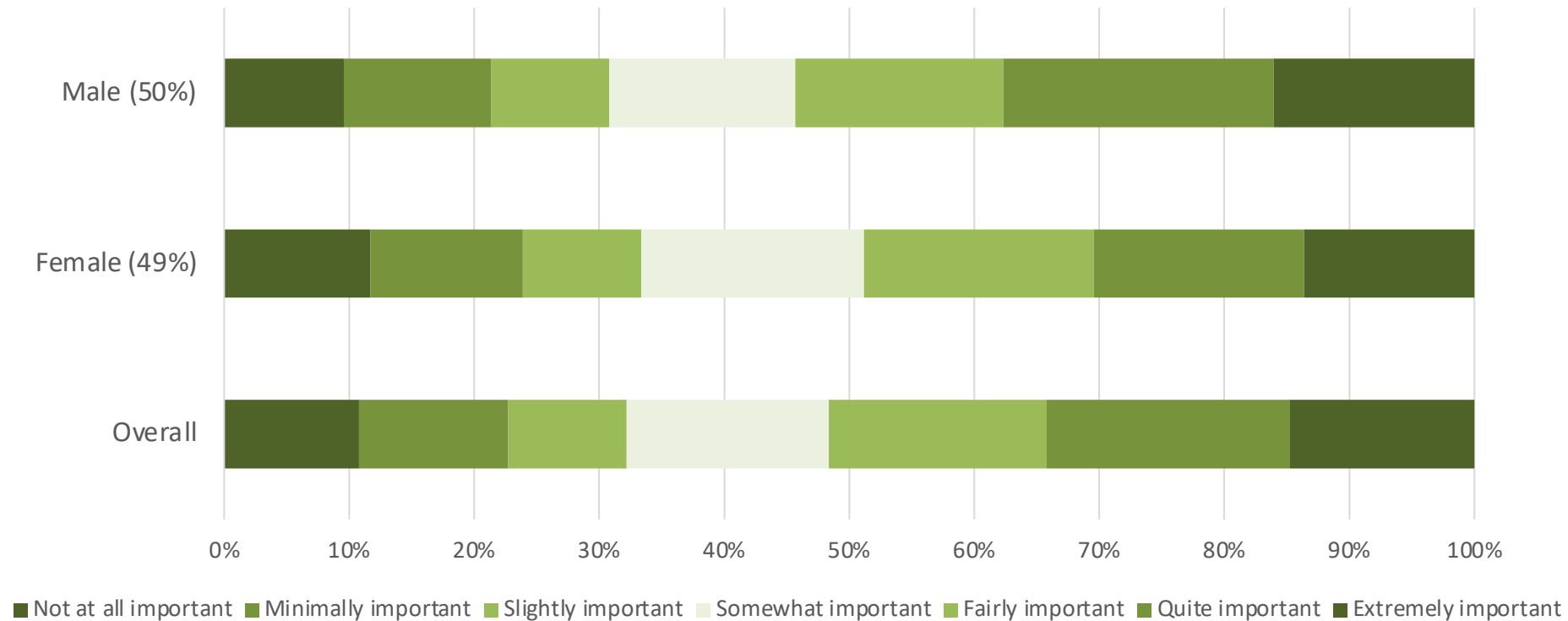
Future Importance of Nuclear: Age



■ Not at all important ■ Minimally important ■ Slightly important ■ Somewhat important ■ Fairly important ■ Quite important ■ Extremely important

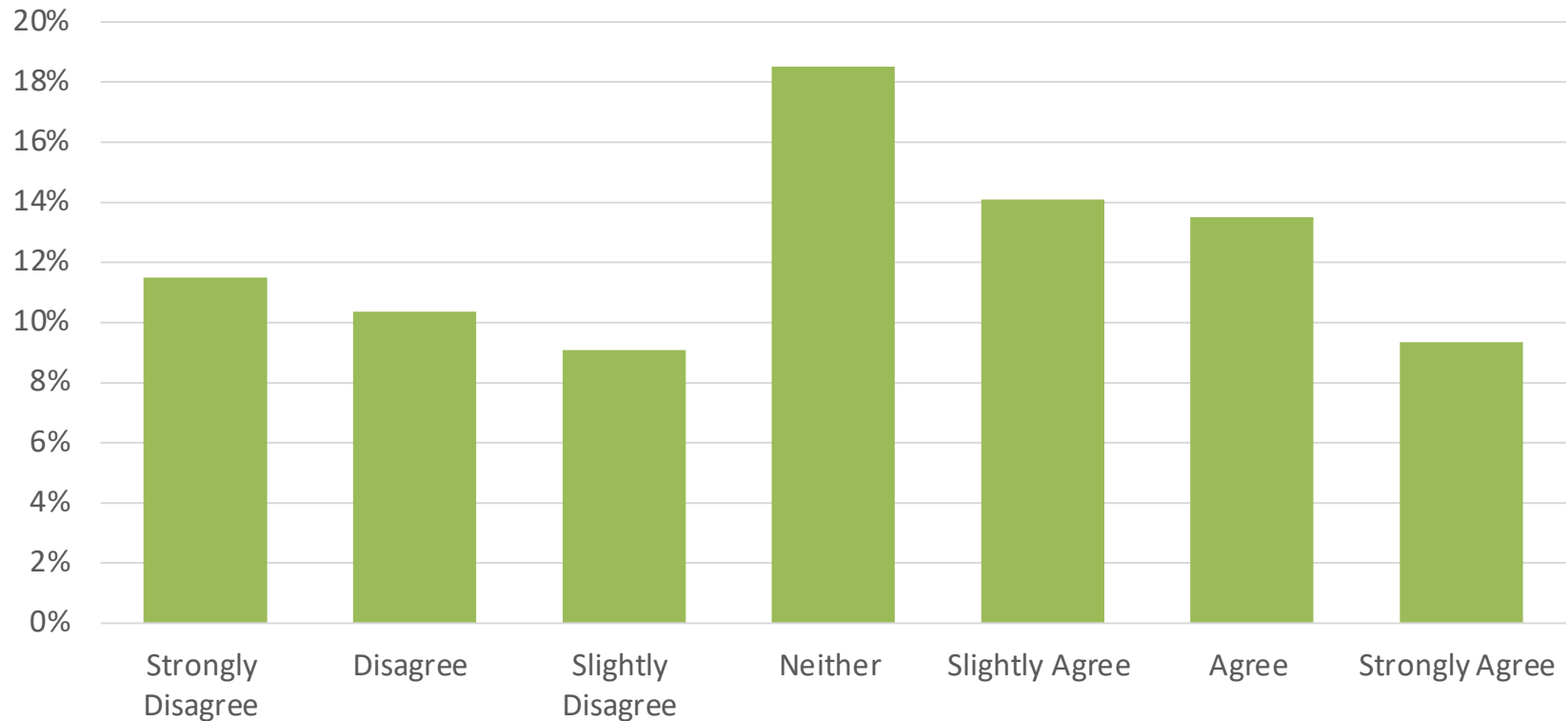
Statement: How important is the nuclear sector to Canada's future economy?

Future Importance of Nuclear: Gender



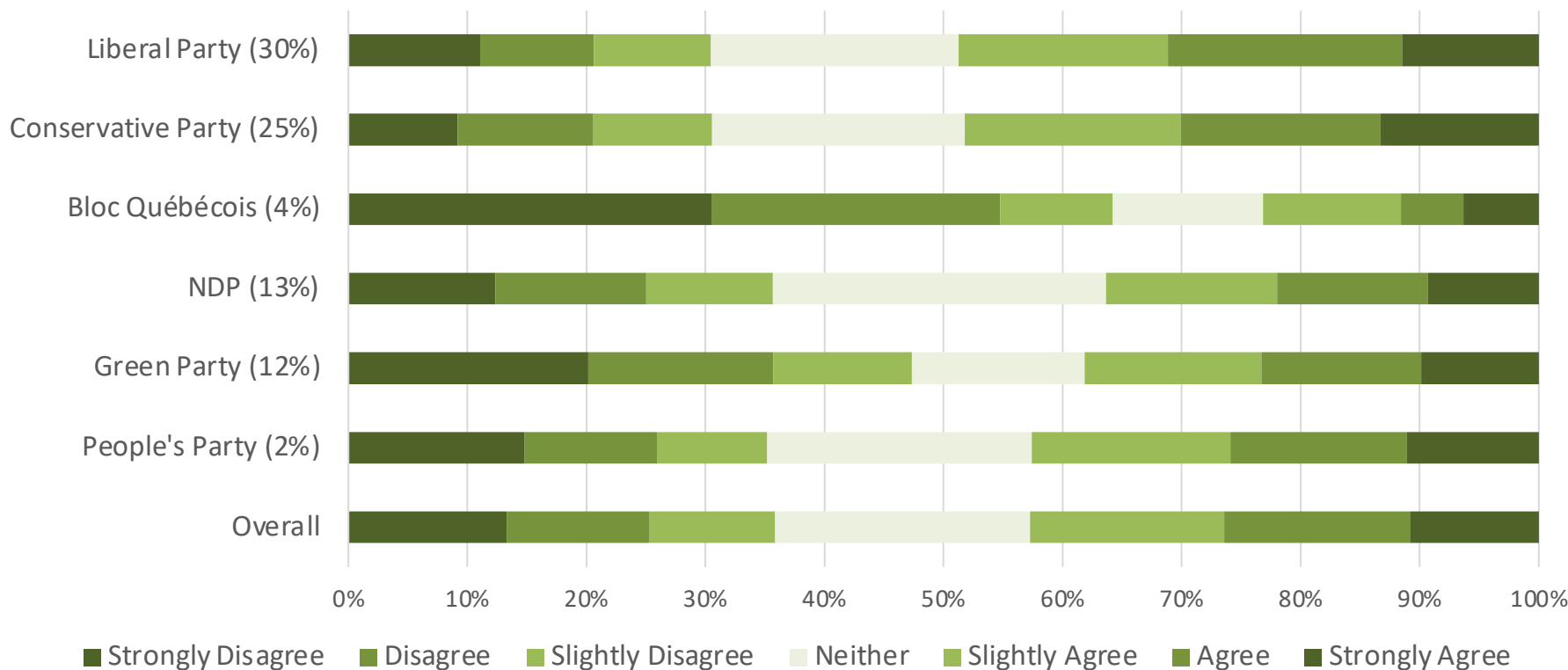
Statement: How important is the nuclear sector to Canada's future economy?

Nuclear and Climate Change



Statement: Generating more nuclear energy is one of the best ways of addressing climate change

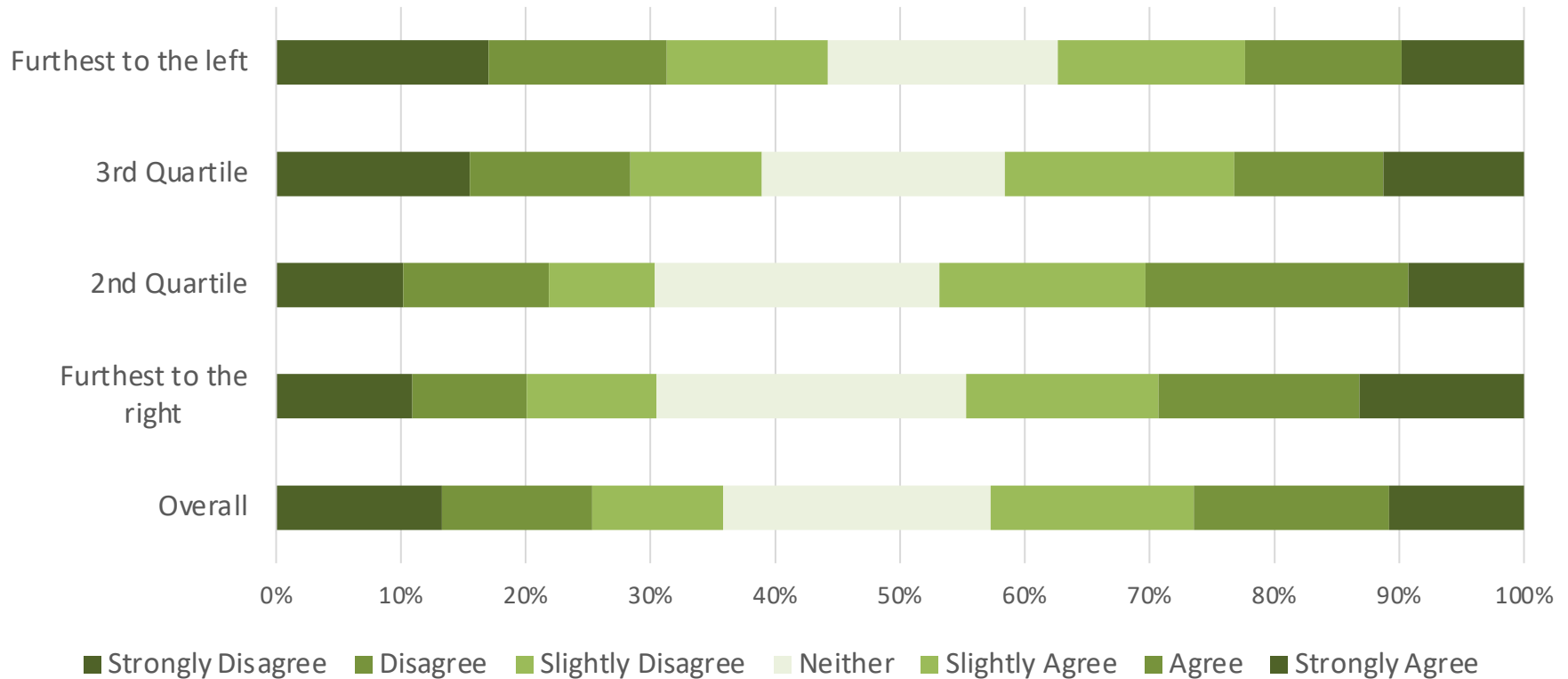
Nuclear and Climate Change: Party



Statement: Generating more nuclear energy is one of the best ways of addressing climate change

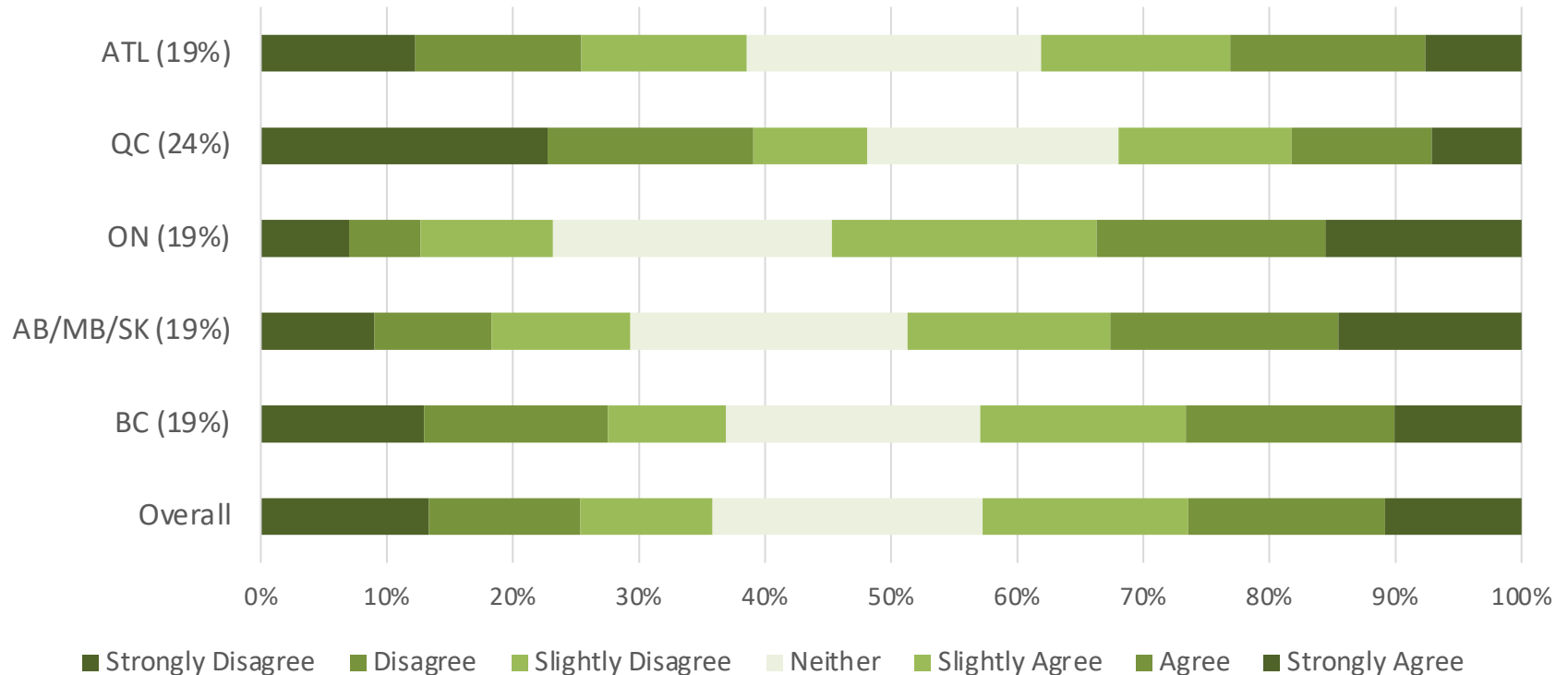


Nuclear and Climate Change: Ideology



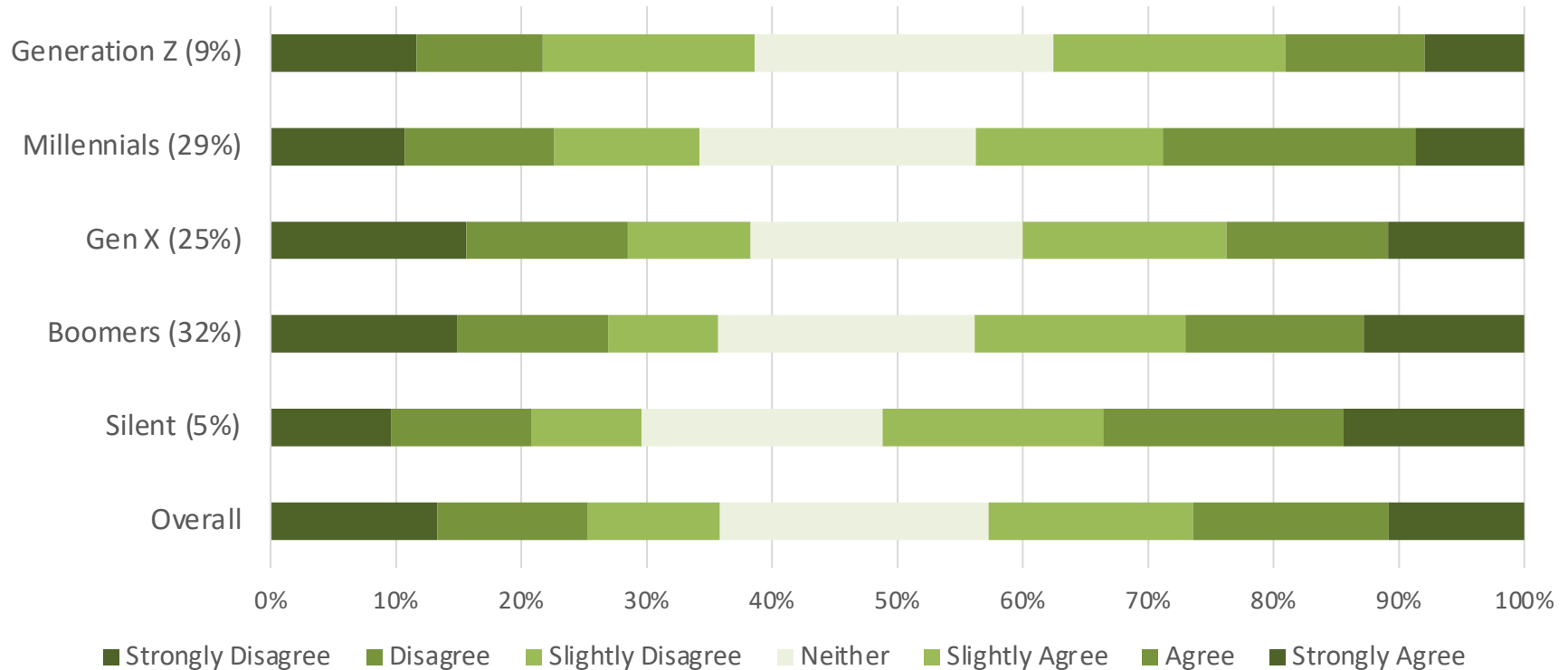
Statement: Generating more nuclear energy is one of the best ways of addressing climate change

Nuclear and Climate Change: Region



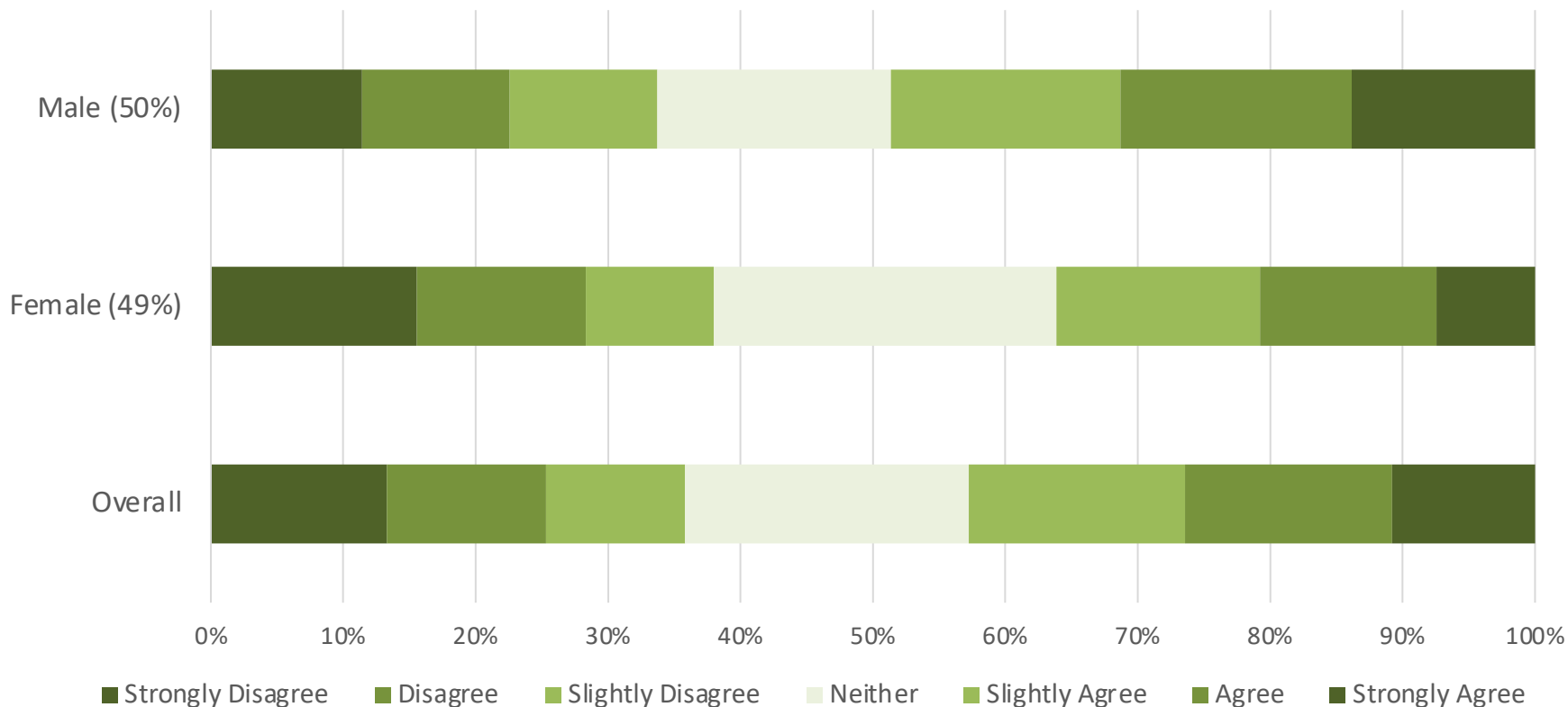
Statement: Generating more nuclear energy is one of the best ways of addressing climate change

Nuclear and Climate Change: Age



Statement: Generating more nuclear energy is one of the best ways of addressing climate change

Nuclear and Climate Change: Gender



Statement: Generating more nuclear energy is one of the best ways of addressing climate change



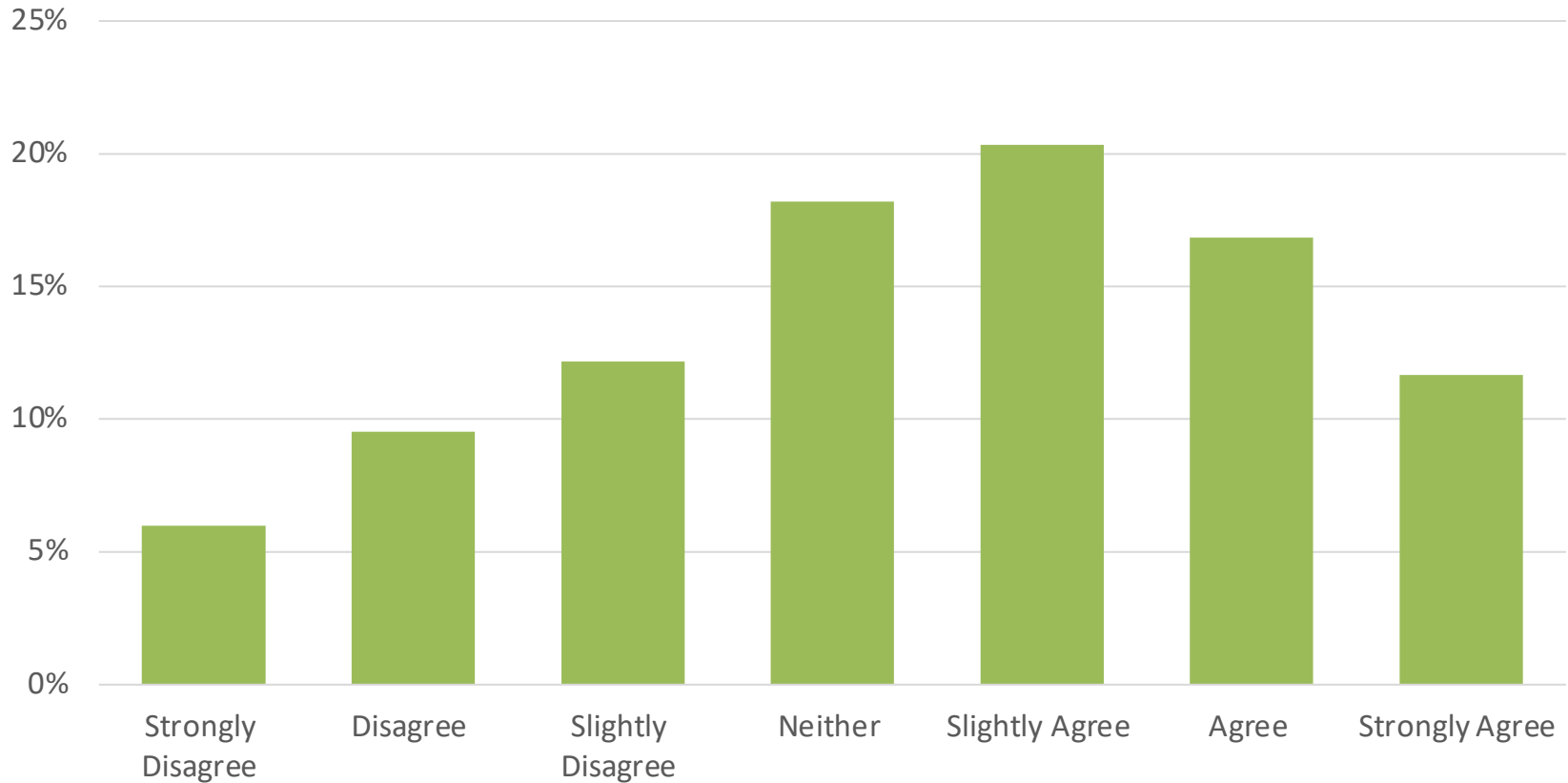
Should Communities Have the Final Say?



Positive Energy asked Canadians whether local communities should have the final say when deciding if an energy infrastructure project should go ahead.

More Canadians agree that local communities should have the final say, but opinion is fragmented overall, particularly along partisan and ideological lines.

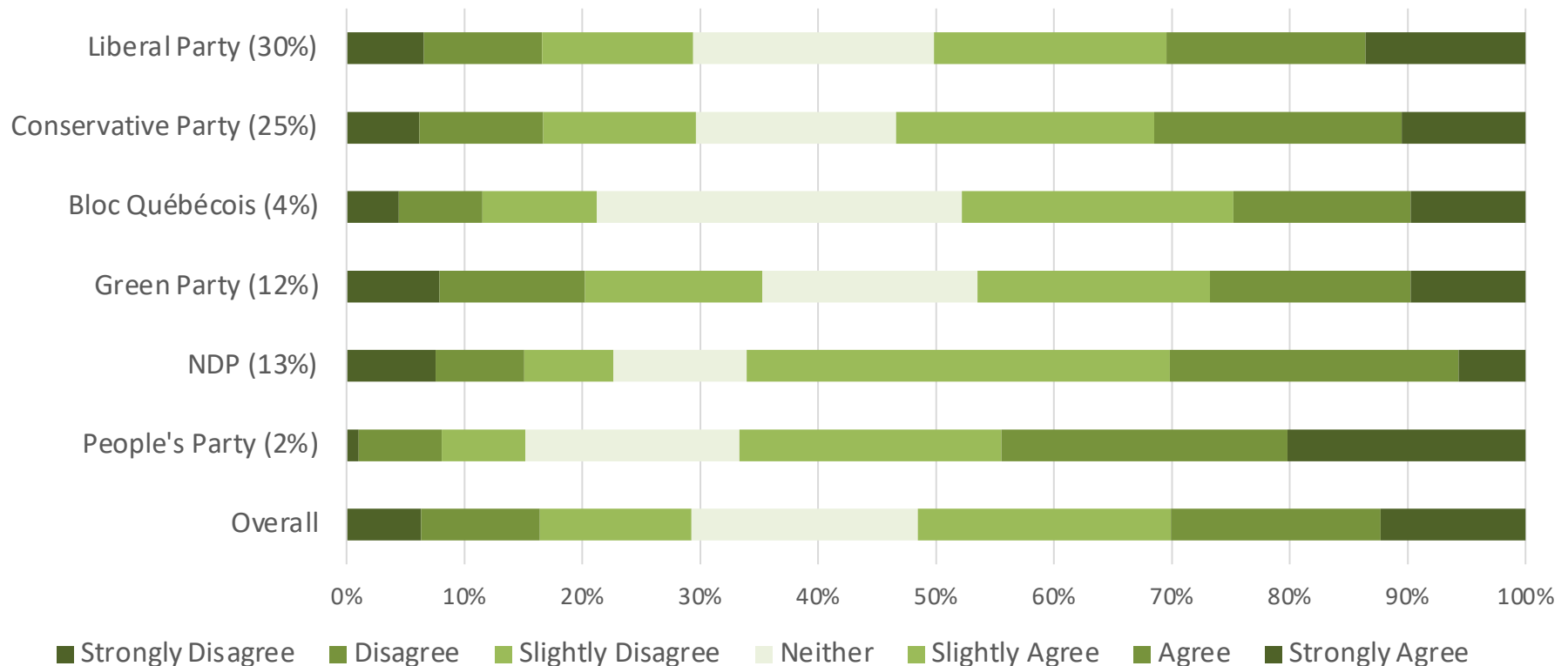
Final Say of Local Communities on Projects



Statement: Local communities should have the final say when deciding whether or not energy infrastructure projects (oil, gas, hydro, solar) that affect them should go ahead

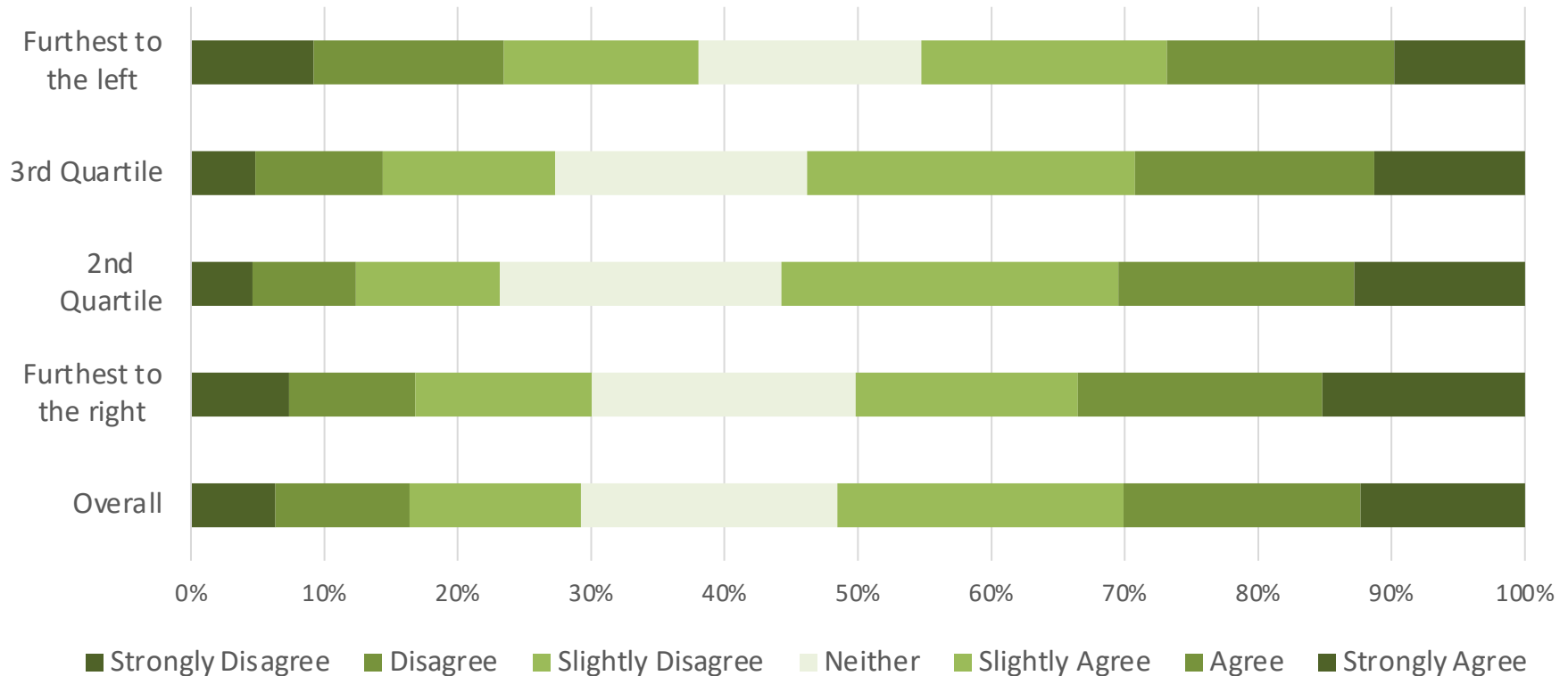


Final Say: Support by Party



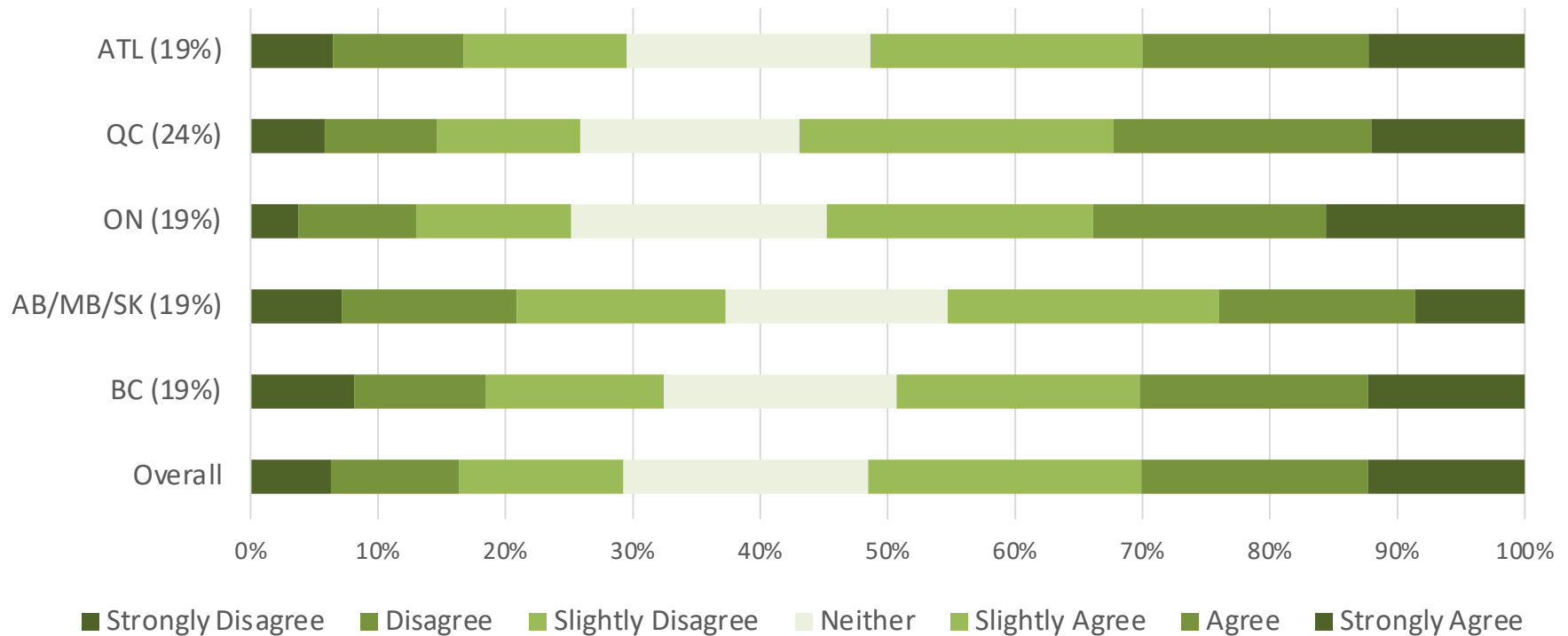
Statement: Local communities should have the final say when deciding whether or not energy infrastructure projects (oil, gas, hydro, solar) that affect them should go ahead.

Final Say: Support by Ideology



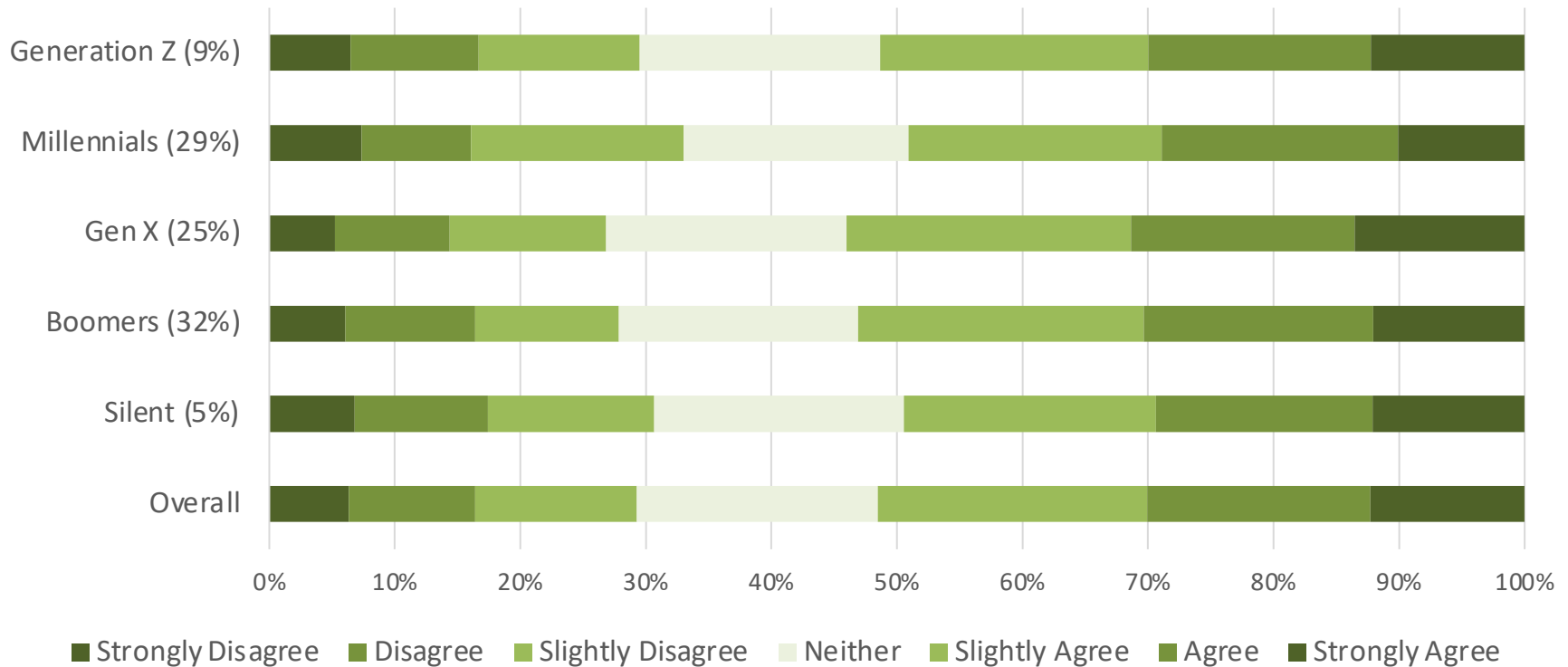
Statement: Local communities should have the final say when deciding whether or not energy infrastructure projects (oil, gas, hydro, solar) that affect them should go ahead

Final Say: Support by Region



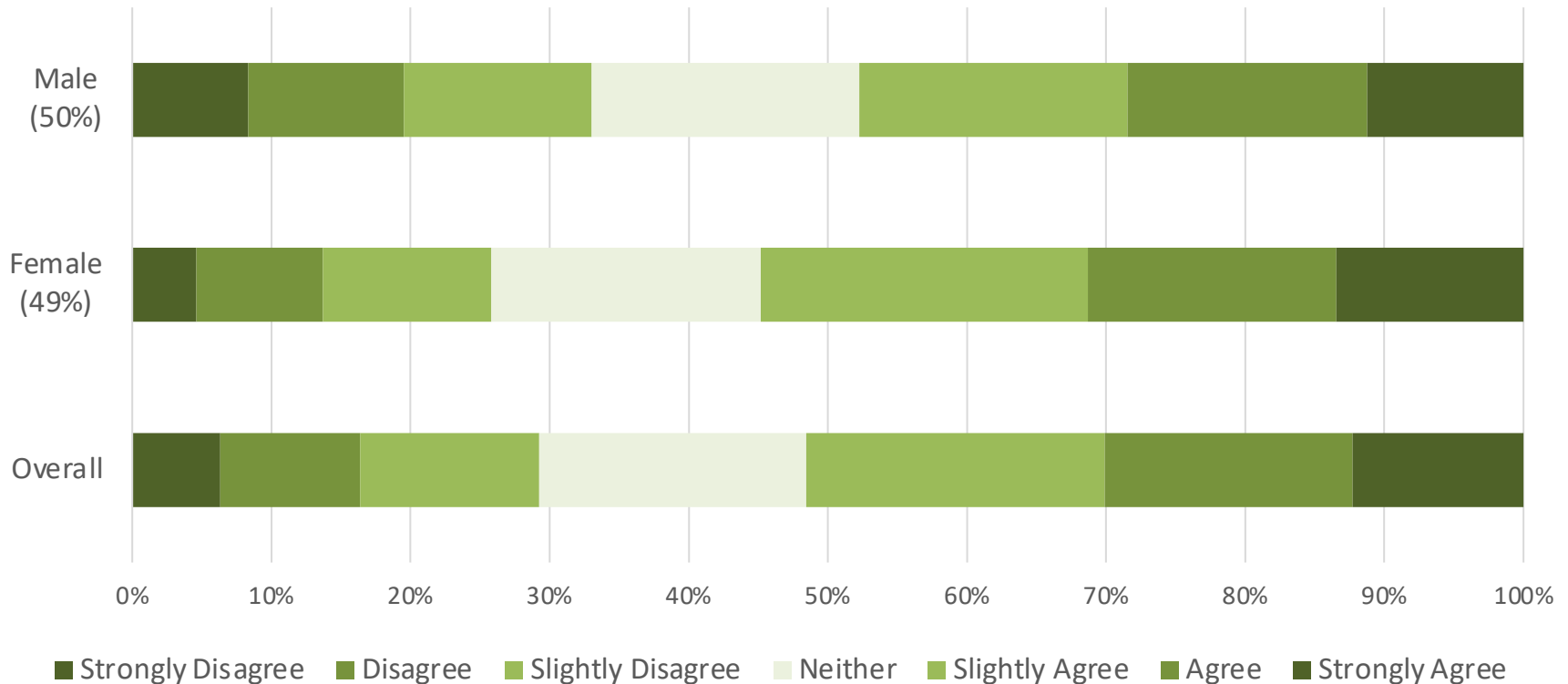
Statement: Local communities should have the final say when deciding whether or not energy infrastructure projects (oil, gas, hydro, solar) that affect them should go ahead

Final Say: Support by Age



Statement: Local communities should have the final say when deciding whether or not energy infrastructure projects (oil, gas, hydro, solar) that affect them should go ahead

Final Say: Support by Gender



Statement: Local communities should have the final say when deciding whether or not energy infrastructure projects (oil, gas, hydro, solar) that affect them should go ahead

Methodological notes

Note on Ideology Scoring

For ideology scoring, the survey used a set of 13 questions adapted from the Pew Research Center (<https://www.pewresearch.org/>) to measure ideology empirically. These questions are well-established and have been shown to be very strong predictors of actual ideological beliefs. Rather than ask questions about party, these use grouped questions (social or economic – see below) to determine belief patterns of survey respondents. We averaged the Likert scale responses to these questions to reflect the left-leaning as the maximum score and the right-leaning as the minimum score in all questions.

"Don't know" values were abundant (sometimes up to 25% of all questions in the block). We replaced all "Don't know" and missing values with the average value for each question included in a set (social, economic; see below). The scale variables resulting from averaging each set of questions were recomputed into quartiles (the highest quartile being that with cases furthest to the left). The new ordinal quartile variable is the one shown in the graphs.

Social score (Pew): *The growing number of newcomers from other countries is a threat to traditional Canadian customs and values; One parent can bring up a child as well as two parents together; I never doubt the existence of God; It seems as though minorities want too many rights just for themselves; Abortion should be illegal in all or most cases; Dissent is a critical component of democracy.*

Economic score (Pew): *The government should help more needy people even if it means going deeper in debt; Government regulation of business usually does more harm than good; Labour unions are necessary to protect the working person; Poor people have become too dependent on government assistance programs; Business corporations make too much profit; The government needs to dramatically reduce inequalities between the rich and poor.*