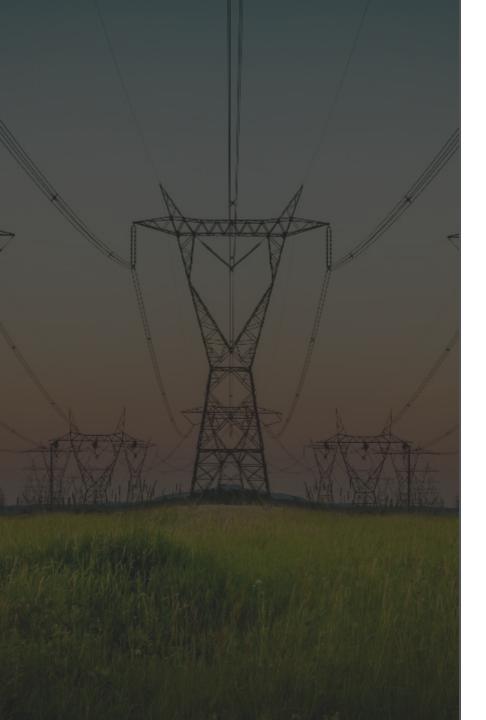


INSTITUT
C.D. HOWE
INSTITUTE







### Overview

In collaboration with the Macdonald-Laurier Institute and the C.D. Howe Institute, Nanos Research conducted public opinion polling among Canadians to gauge their views on a variety of issues related to energy policy in Canada.

As part of this engagement, four polling briefs have been prepared by Nanos Research and compiled into one report. Each brief contains findings from this survey, as well as data from previous research conducted by Nanos Research in collaboration with the University of Ottawa Positive Energy program. The brief covers the following themes for exploration and discussion:

- **1. Opportunity** The world especially our friends and allies wants our energy. What specifically do they need and what do they think is holding us back?
- 2. Investment Despite our resources and potential, the world does not owe us a living, and investment is flowing elsewhere. How can we create the conditions that are conducive to both domestic and foreign investment in a growing and diversifying energy industry?
- **3. Speed** Considering the recent Supreme Court decision on Bill C-69, what is the current regulatory environment in the energy industry, and how is the environment likely to change in the years to come? How can we transform that environment to ensure that no time is lost in allowing Canada to take advantage of its inherent strengths and natural resources?
- **4. How/Path Forward** How can Canada best move forward to ensure a thriving energy sector? What should the priorities be for the government?





# Key theme 1: Opportunity

The world – especially our friends and allies – wants our energy. What specifically do they need and what do they think is holding us back?

## AT A GLANCE

Canadians think collaborating with Indigenous Peoples on energy is important and are mixed on how well the government is doing so.

Overall, the sentiment of Canadians is that the oil and gas sector has less of a role to play in Canada's future economy than it does in the current economy, however Canadians feel the sector can play an important role domestically and internationally if it operates in an environmentally responsible way.





# Opportunities for Indigenous Collaboration

Examining new polling data from MLI, C.D Howe Institute, and Nanos

INSTITUT
C.D. HOWE
INSTITUTE





## Job done by Government consulting with Indigenous Peoples on energy projects

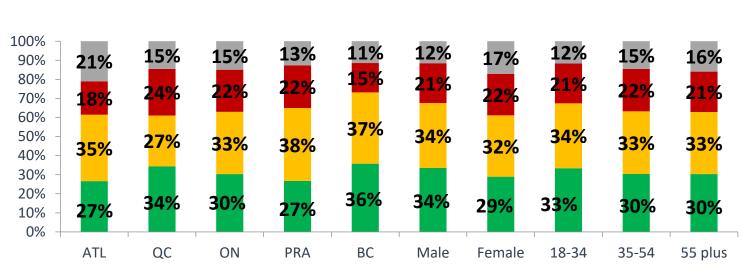
Canadians are divided on how well they think the Government has performed when it comes to consulting Indigenous Peoples on energy projects. Individuals in BC are more likely to say the Government has done a good job of this than residents of the Prairies.

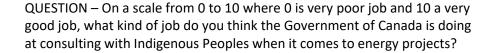
31%

say the Canadian Government has done a good job of consulting with Indigenous Peoples when it comes to energy projects.











## Importance of Canada consulting with Indigenous

Peoples

# How important is consulting with Indigenous Peoples to Canadians?

A majority of Canadians think it is important or somewhat important that the Government of Canada consults with Indigenous Peoples when developing energy development policies. Although this is seen as important by a majority across all region, residents of Atlantic Canada were less likely to say it is important than residents of Ontario, the Prairies or Quebec.



#### Overall

**CANADIANS** 

79%

important/somewhat important

#### **Lowest importance**

**ATLANTIC** 

69%

important/somewhat important

#### **Highest importance**

**ONTARIO** 

84%

important/somewhat important





Over one in three Canadians believe
Indigenous Peoples should play a
major role in informing energy policies
in Canada.

Role Indigenous Peoples should play in informing energy policies in Canada

36%

42%

9%

Major role

Minor role

No role





Ways the Government can foster a more inclusive relationship with Indigenous Peoples on Energy Policy

31% Consult them/listen to them/engage them

8% Nothing/they do enough

7% More communication from the beginning/transparency

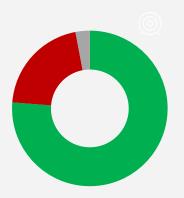
Be respectful/inclusive/build a relationship

Q – What can the Government of Canada do to foster a more inclusive and meaningful relationship with Indigenous Peoples in terms of energy development policies? [OPEN]

# Opportunities for the oil and gas sector in Canada

Tracking studies conducted by Nanos for the University of Ottawa's Positive Energy Program

POSITIVE ENERGY (7) NANOS



Agree/somewhat agree (2019)

**77% 21%** Disagree/Somewhat disagree (2019)

Agreement that Canada's oil and gas sector can play important long-term role domestically and internationally if it operates in an environmentally responsible way (2019)

**77%** 

85%

Agree/ Somewhat agree

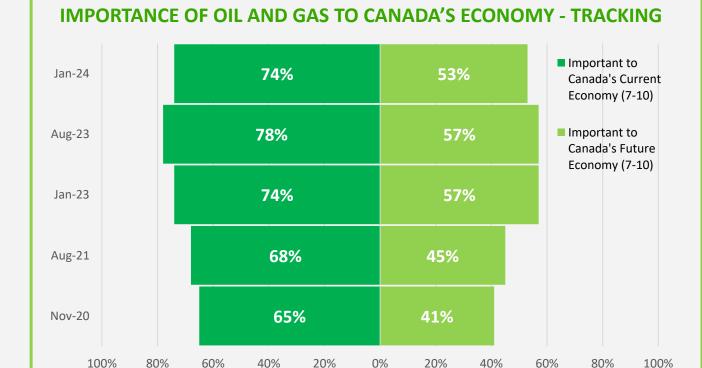
Agree/ Somewhat agree

2019

2018

### **IMPORTANCE OF OIL AND GAS TO** CANADA'S ECONOMY

Since tracking began in November 2020, Canadians continuously say that oil and gas is more important to Canada's current economy (65% in November 2020; 74% in January 2024) than it will be to Canada's future economy (41% in November 2020; 53% in January 2024).





## **IMPORTANCE OF EXPORTING GAS TO COAL USING COUNTRIES (2019)**

59%

of energy leaders\* agreed that exporting Canadian natural gas to countries that use more polluting energy like coal is one of the most important things Canada can do to address climate change (n=100)

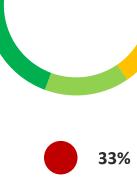


Strongly agree/ somewhat agree/ slightly agree



Neither agree nor disagree

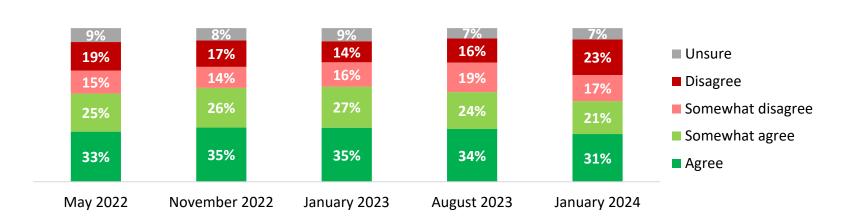
**7**%



Strongly disagree/somewhat disagree/slightly disagree

# OPPORTUNITIES FOR OIL AND GAS EXPORTS

Canadians and energy leaders see an opportunity for Canada to expand its oil and gas exports to help address climate change and to help the world have more secure and reliable energy supplies.



# AGREEMENT THAT CANADA SHOULD EXPAND OIL AND GAS EXPORTS TO HELP THE WORLD HAVE MORE SECURE AND RELIABLE ENERGY SUPPLIES

In the most recent wave in January 2024, almost a quarter of Canadians disagreed (23%) that Canada should expand oil and gas exports to help the world have more secure energy supplies which was an increase compared to the previous waves of research.

<sup>\*</sup> This survey was administered to a panel of energy and environmental leaders across Canada. The list of potential panel participants was provided by the University of Ottawa to Nanos.

## Key theme 2: Investment

Despite our resources and potential, the world does not owe us a living, and investment is flowing elsewhere. How can we create the conditions that are conducive to both domestic and foreign investment in a growing and diversifying energy industry?

## AT A GLANCE

Canada has room for improvement when it comes to impressions Canadians have of the job the country has done with energy projects, whether it be approving new energy projects, or ensuring we build the energy and transportation infrastructure for the future. Most Canadians show support for building natural gas export facilities and export facilities for low carbon hydrogen

In terms of rules and regulations, Canadians lean more toward thinking Canada does a poor rather than a good job at providing a clear, predictable and competitive policy and regulatory environment for energy investors. However, rules and regulations are most frequently seen to have a neutral or positive impact on the ability to complete energy projects on time.





# Rating the job Canada has done with energy projects

Examining new polling data from MLI, C.D Howe Institute, and Nanos

INSTITUT
C.D. HOWE
INSTITUTE





## Job Canada has done with energy projects and infrastructure

Mean scores (out of 10)

5.4 out of 10

Making sure we will build the energy infrastructure that will generate the energy we will need in the future

5.5 out of 10

Approving new energy projects like hydroelectric dams, pipelines, wind/solar farms and gas export facilities

5.6 out of 10

Making sure we have the transportation infrastructure like roads, rail, airports and ports that we will need in the future



**Canadians are not impressed** by the job the country has done approving energy projects and building infrastructure

Canada receives a mediocre score in terms of the job it has done approving new energy projects and making sure we have the transportation and energy infrastructure we will need in the future.

Residents from the Prairies score lower than Canadians overall in terms of their impression of the job done with building energy infrastructure (mean of 4.8 vs. 5.4) and approving energy projects (mean of 4.9 vs. 5.5) but are on par when it comes impressions of making sure we have the transportation infrastructure needed in the future (mean of 5.5 vs. 5.6.).



# NANOS RESEAR

# Reasons for rating Canada's job at building energy infrastructure that will generate energy for future needs

Reason for thinking Canada is doing a good job (7 to 10)(n=297)

- 32% say Canada is making a great effort/heading in the right direction
- **16% say** they can do more/haven't done enough/average
- 9% say it is important they do/ will help people/Good for the future

Reason for thinking Canada is doing a poor job (0 to 3)(n=160)

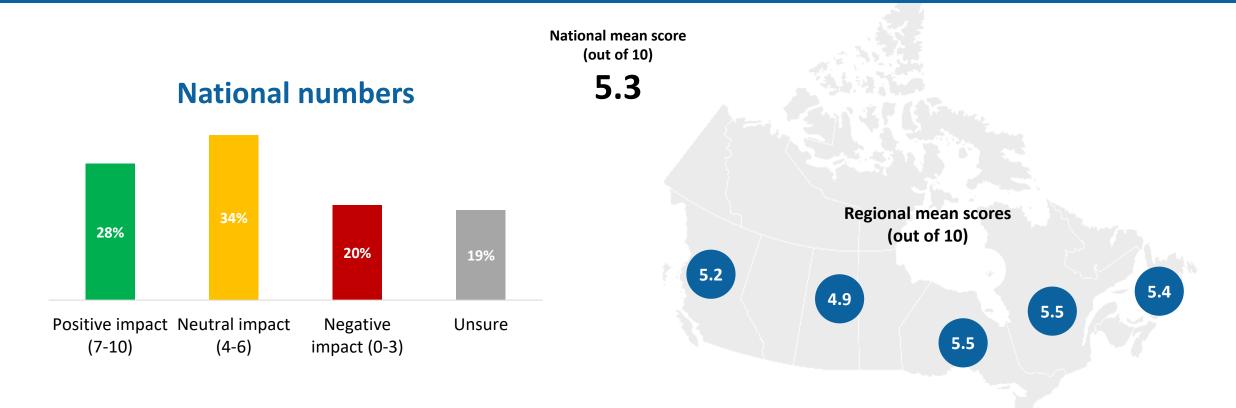
- 22% say the government is slow/incompetent/do not care
- 19% say they can do more/haven't done enough/average
- 14% say Canada is ill equipped/ unprepared to handle energy needs/We need a long-term energy plan





# Impact of rules and regulations on ability to complete energy projects in a timely manner

Canadians are more likely to think rules and regulations in Canada have a neutral impact (34%) or a positive impact (28%) on the ability to complete energy projects on time rather than a negative impact (20%). About one in five are unsure what the impact is (19%).





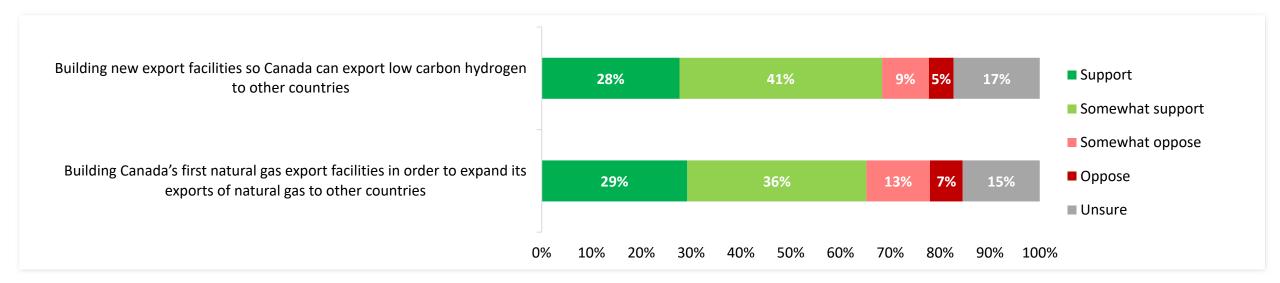


Canadians overall show no significant difference in support levels when comparing building new export facilities for low carbon hydrogen to building Canada's first natural gas export facilities.

Residents of the Prairies report higher support levels for both building Canada's first natural gas export facilities (77% support/somewhat support) and new export facility for low carbon hydrogen (73%) while residents of Quebec are less likely (49% and 61% support/somewhat support, respectively).

# SUPPORT FOR BUILDING ENERGY EXPORT FACILITIES

Overall, Canadians show similar support for building natural gas export facilities and export facilities for low carbon hydrogen and are over three times more likely to support/somewhat support than oppose/somewhat oppose both.



Q - Would you support, somewhat support, somewhat oppose or oppose the following: [RANDOMIZE]





# Policy and regulatory environment impact on investment

Tracking studies conducted by Nanos for the University of Ottawa's Positive Energy Program

POSITIVE ENERGY NANOS

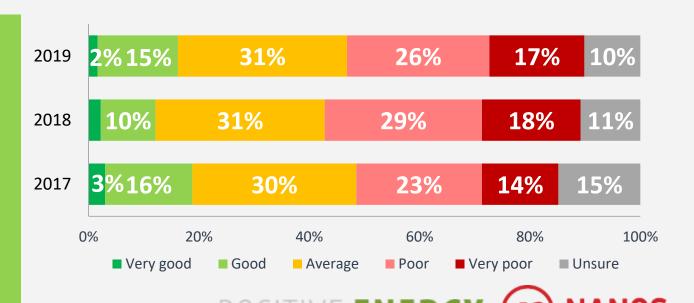
## **Providing clear policy and regulations**

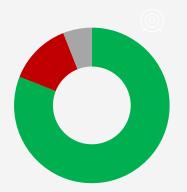
Canadians are over twice as likely to think Canada does a poor/very poor job rather than a good/very good job at providing a clear, predictable and competitive policy and regulatory environment for energy investors. Nearly one in three say Canada is doing an average job.

## Proportion that believe Canada is doing a poor or very poor job (2019)

Atlantic	Quebec	Ontario	Prairies	ВС
39.4%	32.1%	43.3%	52.5%	50.5%

Question - Does Canada do a very good, good, average, poor or very poor job at the following? [Randomize] **Providing a clear, predictable and competitive policy and regulatory environment for energy investors** 





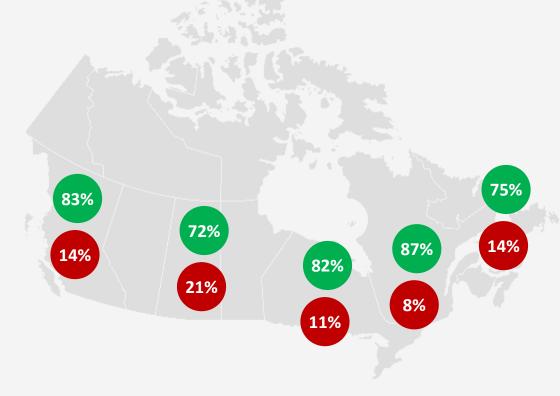
81% 13% Agree/somewhat agree

Disagree/Somewhat disagree

When asked their level of agreement with the statement that Canada needs to better manage the cumulative effects of multiple projects to provide greater clarity for local and Indigenous governments and for investors, the vast majority of Canadians say they agree (44%) or somewhat agree (37%), while just over one in ten Canadians disagree (six per cent) or somewhat disagree (seven per cent). Six per cent are unsure.

### **Need for better management of the** cumulative effects of multiple projects (2017)

Question - Do you agree, somewhat agree, somewhat disagree or disagree with the following statement: Canada needs to better manage the cumulative effects of multiple projects to provide greater clarity for local and Indigenous governments and for investors.





# Key theme 3: Speed

Considering the recent Supreme Court decision on Bill C-69, what is the current regulatory environment in the energy industry, and how is the environment likely to change in the years to come? How can we transform that environment to ensure that no time is lost in allowing Canada to take advantage of its inherent strengths and natural resources?

## AT A GLANCE

Canadians are split on the amount of decision-making power the federal government should have on the approval of energy projects, with close to one in three saying it has the right amount (31%) and around one in four each who say it has too little (26%) or too much power (22%).

Although Canadians give mediocre scores on both, they are slightly more positive on the job done by the federal government at meeting climate targets (mean of 5.1) than the government's job at ensuring energy is affordable for Canadians (mean of 4.5).

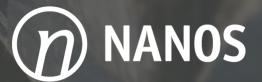
Canadians are two times more likely to say there is less agreement (34%) than more agreement (17%) on the future of oil and gas production in Canada than five years ago.

# Ensuring no time is lost in allowing Canada to take advantage of its inherent strengths and natural resources

Examining new polling data from MLI, C.D Howe Institute and Nanos

INSTITUT
C.D. HOWE
INSTITUTE



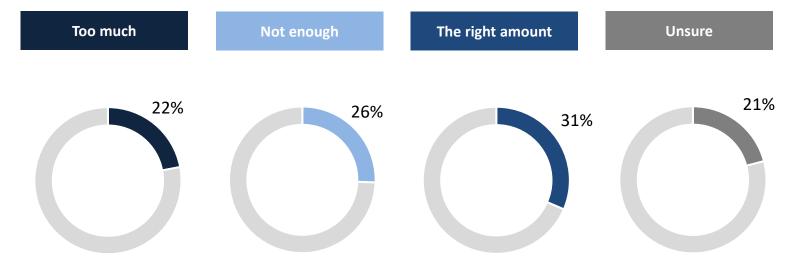


Amount of decision-making power of federal government over provinces and territories when it comes to the approval of energy projects

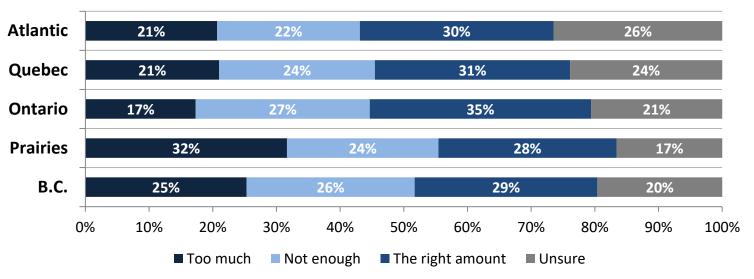
Residents of the Prairies are more likely to say the federal government has too much decision-making power over provincial and territorial governments when it comes to the approval of energy projects.

Q - Do you believe the federal government has too much, not enough or about the right amount of decision making power over provincial/territorial governments when it comes to the approval of energy projects?

#### Canada



#### **Regions**





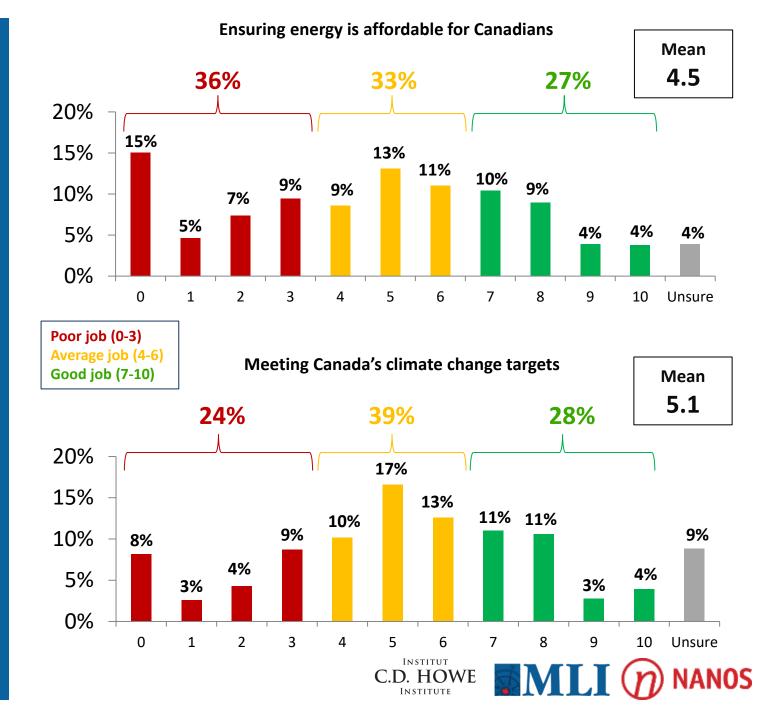




## Job done by government at ensuring energy is affordable for Canadians and meeting Canada's climate change targets

Regarding ensuring energy is affordable, Canadians are more likely to say the federal government is doing a poor job (36%) than a good job (27%) at this (mean score of 4.5 out of 10). They are divided on the job the government is doing at meeting climate change targets, with around one in four each who say the government is doing a good job (28%) or a poor job (24%)(mean score of 5.1 out of 10.

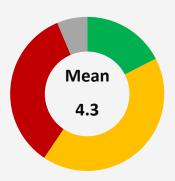
Question - On a scale from 0 to 10 where 0 is very poor job and 10 a very good job, what kind of job do you think the federal government does at the following: [ROTATE]



# Perceived agreement among Canadians on the future of oil and gas production

Tracking studies conducted by Nanos for the University of Ottawa's Positive Energy Program





**17% 34%** More agreement compared to five years ago (scores of 7-10)

Less agreement compared to five years ago (scores of 0-3)

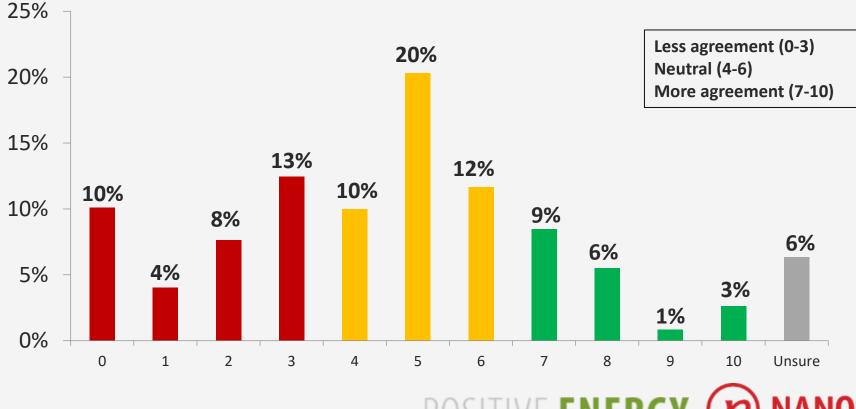
Region	Mean		
Atlantic	4.8		
Quebec	4.8		
Ontario	4.2		
Prairies	3.8		
B.C.	4.3		

Region	Mean		
Atlantic	4.8		
Quebec	4.8		
Ontario	4.2		
Prairies	3.8		
B.C.	4.3		

9% 8% 6% 4% 5% 0% 2 5 6 7 8 0 1 3 4 Q – On a scale of 0 to 10, where 0 is much less agreement compared to five years ago and 10 is much more agreement compared to five years ago, do you think there is currently less or more agreement among Canadians on the following: The future of oil and gas production in Canada

### Perceived agreement on the future of oil and gas compared to five years ago (2021)

Canadians are two times more likely to say there is currently less agreement than more agreement than five years ago on the future of oil and gas production in Canada.



# Key theme 4: Path Forward

How can Canada best move forward to ensure a thriving energy sector? What should the priorities be for the government?

## AT A GLANCE

Canadians are more likely to oppose rather than support the federal increase of the Carbon Tax, with those in BC and the Prairies more likely to be opposed than individuals living in Quebec or Ontario.

They prioritize energy affordability in Canada versus reliability or reducing greenhouse gases over the next five years, and consistently agree that the government is doing a poor or very poor job at creating a long-term energy plan for the country.





# Support for the Carbon Tax in Canada

Examining new polling data from MLI, C.D Howe Institute, and Nanos

INSTITUT
C.D. HOWE
INSTITUTE

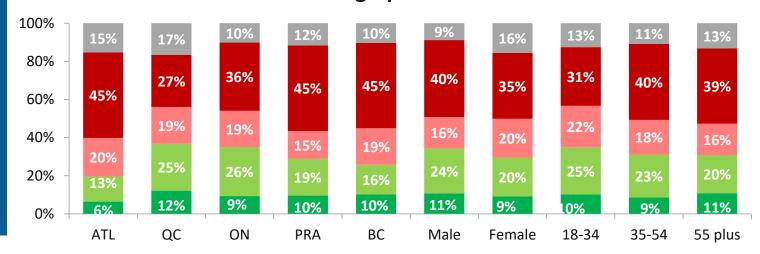


# Level of support for increasing the Carbon Tax

Canadians are nearly twice as likely to oppose or somewhat oppose the recent federal increase in the Carbon Tax than to support or somewhat support it. Canadians living in the Prairies and British Columbia are more likely to oppose this than those in Quebec or Ontario.

# Support Somewhat support Somewhat oppose Oppose Unsure

#### Demographic breakdown







# Long-term energy plans in Canada

Tracking studies conducted by Nanos for the University of Ottawa's Positive Energy Program

POSITIVE ENERGY (7) NANOS

# Final decision makers for energy projects (2018)

Canadians have a preference for government entities and agencies having the final decision-making power when it comes to major national energy projects.

25%

The federal cabinet should have the final say in national energy projects

36%

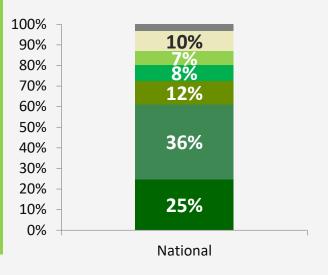
An independent federal agency should have the final say in national energy projects

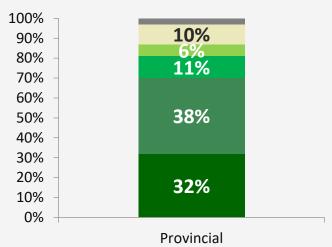
Question - When it comes to major national energy projects, who should have the final decision-making power? Please rank [RANDOMIZE]

When it comes to major provincial or territorial energy projects, who should have the final decision-making power? Please rank [RANDOMIZE]

38%

An independent provincial or territorial agency should have the final say in provincial or territorial energy projects





- Unsure
- Other
- Indigenous governments whose land is affected by projects
- Local or municipal governments affected by projects
- Provincial governments
- An independent federal regulatory agency
- The federal cabinet

- Unsure
- Other
- Indigenous governments in the province or territory whose land is affected
- Local or municipal governments in the province or territory affected
- An independent provincial or territorial regulatory agency
- The provincial or territorial cabinet

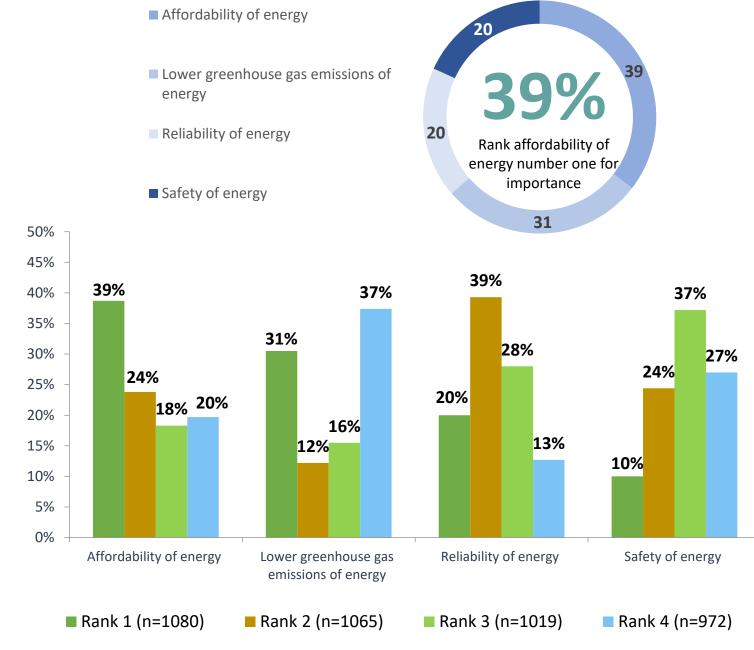




# Ranking Canadians' energy needs (2023)

Canadians rank affordability as the most important need in the next five years, followed by lowering GHGs and reliability.

Reliability and affordability are most frequently ranked in the top three needs followed by safety. Emissions reductions is most frequently ranked fourth.

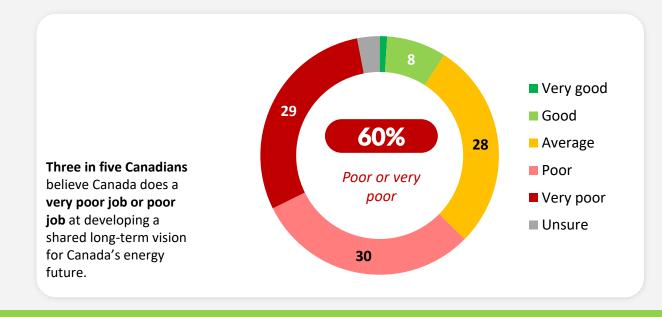


QUESTION – Thinking about the energy needs of Canadians in the next five years, please rank the importance of the following where 1 is the most important, 2 the second most important and so on: [RANDOMIZE]



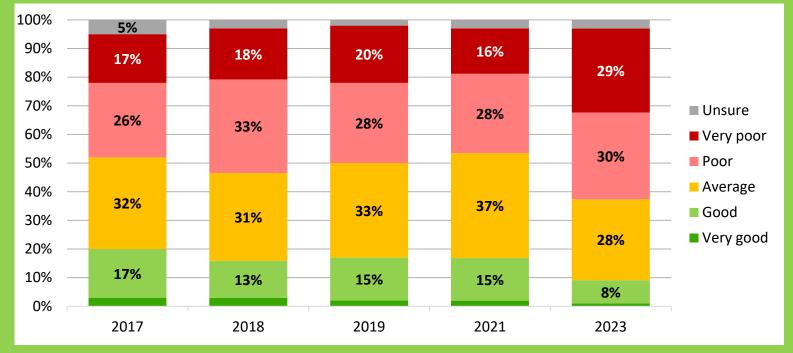
## Developing a longterm energy plan in Canada (2023)

Three in five Canadians believe Canada does a very poor job (30%) or poor job (29%) at developing a shared long-term vision for Canada's energy future – the highest proportion of negative views since tracking began.



Question - Does Canada do a very good, good, average, poor or very poor job at the following?

Developing a shared longterm vision for Canada's energy future



### METHODOLOGY – MLI/C.D. Howe Institute

Nanos conducted a non-probability representative online survey of 1,237 Canadians, 18 years of age or older, between April 16<sup>th</sup> to 18<sup>th</sup>, 2024. No margin of error applies to this research.

The results were statistically checked and weighted by age and gender using the latest Census information and the sample is geographically stratified to be representative of Canada.

The research was commissioned by the Macdonald-Laurier Institute (MLI) and the C.D. Howe Institute, and was conducted by Nanos Research.



#### **POSITIVE ENERGY RESEARCH**

All of the below research was commissioned by Positive Energy at the University of Ottawa and was conducted by Nanos Research.

#### **2024** – January

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,114 Canadians, 18 years of age or older, between January  $29^{th}$  to  $31^{st}$ , 2024 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,114 Canadians is  $\pm 2.9$  percentage points, 19 times out of 20.

#### **2023 – August**

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,081 Canadians, 18 years of age or older, between July  $30^{th}$  and August  $2^{nd}$ , 2023 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,081 Canadians is  $\pm 3.0$  percentage points, 19 times out of 20.

#### 2023 – April

Nanos conducted an RDD dual frame (land-and cell-lines) hybrid telephone and online random survey of 1,080 Canadians, 18 years of age or older, between April 30<sup>th</sup> and May 3<sup>rd</sup>, 2023, as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,080 Canadians is ±3.0 percentage points, 19 times out of 20.

#### **2023 - January**

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,054 Canadians, 18 years of age or older, between January  $27^{th}$  and  $30^{th}$ , 2023 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,054 Canadians is  $\pm 3.0$  percentage points, 19 times out of 20.

#### 2022 – November

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,084 Canadians, 18 years of age or older, between October 30<sup>th</sup> to November 4<sup>th</sup>, 2022 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,084 Canadians is ±3.0 percentage points, 19 times out of 20.

#### 2022 – May

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,001 Canadians, 18 years of age or older, between May 26<sup>th</sup> to 30<sup>th</sup>, 2022 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,001 Canadians is ±3.1 percentage points, 19 times out of 20.

#### 2021 – April

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,025 Canadians, 18 years of age or older, between April 29<sup>th</sup> and May 3<sup>rd</sup>, 2021, as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,025 Canadians is ±3.1 percentage points, 19 times out of 20.

#### 2021 – November

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,024 Canadians, 18 years of age or older, between October 31<sup>st</sup> to November 3<sup>rd</sup>, 2021, as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for this survey is ±3.1 percentage points, 19 times out of 20.



#### **2019 – Omnibus**

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between August 29<sup>th</sup> and September 4<sup>th</sup>, 2019 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for this survey is ±3.1 percentage points, 19 times out of 20.

#### 2019 – Energy Panel

Nanos was retained to build a panel of energy and environmental leaders across Canada. The list of potential panel participants was provided by the University of Ottawa to Nanos. The observations are based on an online outreach to 100 environmental and energy leaders September 11<sup>th</sup> and October 4<sup>th</sup>, 2019. Readers should note that the research is representative of the participants and should not be projected to any population, leaders or general. No margin of error applies to this research.

#### **2018 – Omnibus**

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between March  $31^{st}$  and April  $3^{rd}$ , 2018. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,000 Canadians is  $\pm 3.1$  percentage points, 19 times out of 20.

#### **2017 – Omnibus**

Nanos conducted a hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between September 23<sup>rd</sup> and 26<sup>th</sup>, 2017 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,000 Canadians is ±3.1 percentage points, 19 times out of 20.



#### **2018 – Omnibus**

Nanos conducted an RDD dual frame (land- and cell-lines) hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between March 31<sup>st</sup> and April 3<sup>rd</sup>, 2018. Participants were randomly recruited by telephone using live agents and administered a survey online. The results were statistically checked and weighted by age and gender using the latest Census information and the sample is geographically stratified to be representative of Canada. The margin of error for a random survey of 1,000 Canadians is ±3.1 percentage points, 19 times out of 20. The research was commissioned by University of Ottawa Positive Energy and was conducted by Nanos Research.

#### **2017 – Omnibus**

Nanos conducted a hybrid telephone and online random survey of 1,000 Canadians, 18 years of age or older, between September 23<sup>rd</sup> and 26<sup>th</sup>, 2017 as part of an omnibus survey. Participants were randomly recruited by telephone using live agents and administered a survey online. The margin of error for a random survey of 1,000 Canadians is ±3.1 percentage points, 19 times out of 20. This study was commissioned by University of Ottawa Positive Energy and conducted by Nanos Research.





As one of North America's premier market and public opinion research firms, we put strategic intelligence into the hands of decision makers. The majority of our work is for private sector and public facing organizations and ranges from market studies, managing reputation through to leveraging data intelligence. Nanos Research offers a vertically integrated full service quantitative and qualitative research practice to attain the highest standards and the greatest control over the research process. <a href="https://www.nanos.co">www.nanos.co</a>



The Macdonald-Laurier Institute (MLI) is Canada's only truly national public policy think-tank based in Ottawa. MLI is independent and non-partisan and is the most cited think-tank in Canada's parliament with their experts routinely called upon to testify at parliamentary committee. Their goal is to be an indispensable source of reasoned and timely thought leadership for policymakers, opinion leaders, and Canadians at-large.



The C.D. Howe Institute is a registered charity, and an independent not-for-profit research institute whose mission is to raise living standards by fostering economically sound public policies. Widely considered to be Canada's most influential think tank, the Institute is a source of trusted policy intelligence, distinguished by research that is nonpartisan, evidence-based and subject to definitive expert review.

## POSITIVE ENERGY

The University of Ottawa's Positive Energy program uses the convening power of the university to bring together academic researchers and senior decision-makers from industry, government, Indigenous communities, local communities and environmental organizations to determine how to strengthen public confidence in energy decision-making.



For any questions, please contact



**Heather Exner-Pirot** 

heather.exner-pirot@macdonaldlaurier.ca



**Nik Nanos** 

nik@nanos.co



**Charles DeLand** 

cdeland@cdhowe.org