

Welcome to this week's presentation and conversation hosted by the  
**Canadian Association for the Club of Rome,**  
a Club dedicated to intelligent debate and action on global issues.

***Public confidence on the road to net zero:  
a key ingredient for emissions reductions success.***

Our speaker today is Dr. Monica Gattinger, who holds a PhD in public policy (Carleton U) & directs the Institute for Science, Society & Policy (U Ottawa). She is a researcher, speaker, adviser, & media commentator on energy & arts/cultural policy. Her research convenes business, government, Indigenous people, civil society, & academic leaders to address complex challenges. She has published widely in these policy fields, with a focus on decision-making under technological & social change.

**DESCRIPTION:** Canada is at a pivotal moment on energy & climate: there is more agreement on the need to reduce emissions, & there are many opportunities for Canadian energy in domestic & international markets. There is much to be done to move from the 'what' to the 'how' on Canada's commitment to net zero by 2050. This talk highlights key obstacles & challenges to strengthen confidence on the road to Net Zero: getting infrastructure financed & built, & technology developed & deployed; ensuring energy is affordable & reliable; building consensus for Canada's future, & fostering intergovernmental collaboration.

The presentation will be followed by a conversation, questions, and observations from the participants.

CACOR acknowledges that we all benefit from sharing the traditional territories of local Indigenous peoples (First Nations, Métis, and Inuit in Canada) and their descendants.



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YouTube: [Canadian Association for the Club of Rome](https://www.youtube.com/channel/UCw8tZyYqYm8p8p8p8p8p8p8)  
2023 May 10 Zoom #146

# Public Confidence on the Road to Net Zero: A Key Ingredient for Emissions Reductions Success

Professor Monica Gattinger, Founding Chair, Positive Energy Director, Institute for Science, Society & Policy

POSITIVE ENERGY

CANADA'S ENERGY FUTURE IN AN  
AGE OF CLIMATE CHANGE



uOttawa

# Presentation Overview

## About Positive Energy

## Public Confidence on the road to Net Zero: Multiple Challenges & Pathways

- Getting infrastructure financed, permitted and built; and technology developed and deployed
- Ensuring energy is affordable and reliable
- Building consensus among the public and among experts
- Fostering intergovernmental collaboration and navigating partisan polarization

## The Path Forward

- An integrated approach that strikes a durable balance among energy and climate imperatives

# About Positive Energy

# Positive Energy

## A Research and Engagement Programme at uOttawa's Institute for Science, Society and Policy

- **Mandate:** to strengthen public confidence in Canadian energy policy, regulation and decision-making through evidence-based research and analysis, engagement and recommendations for action
- **Approach:** uses the convening power of the university to bring together industry, government, Indigenous leaders, ENGOs and academia; solution-focused research

## Three Phases

- **PE-I (2015-2018):** Public Confidence in Energy Decisions
- **PE-II (2018-2021):** Canada's Energy Future in an Age of Climate Change
- **PE-III (2021-2026):** Public Confidence on the Road to Net Zero

# Positive Energy

## Financial supporters to date

AB Energy, AER, BCER, BCUC, CanWEA(REC), CAPP, Electricity Canada, CGA, CEPA, CNSC, CRIN, Cenovus, Ovintiv, Petronas Cda, NRCan, SSHRC

## Advisory Council

Chair: Nik Nanos; Funding orgs + Indigenous/academic/ ENGO/thought leaders

## Research collaborators

Senior practitioners and profs from Clarkson, Mount Royal, Queen's, UdeM, UofR, UofT, UVic, Oregon State  
Collaborations with organizations: Canada's Energy Regulators (CAMPUT), First Nations Major Projects Coalition (FNMPC)

## Official Pollster

Nanos Research

uOttawa.ca



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# Public Confidence on the Road to Net Zero: Multiple Challenges, Multiple Pathways



# Getting infrastructure financed, permitted and built; technology developed and deployed





## SPECIAL REPORT

# U.S. solar expansion stalled by rural land-use protests







# Can we build enough fast enough?

Challenges and opportunities for  
public, investor and Indigenous  
confidence in energy project  
decision-making

# Policy Uncertainty

A major challenge *outside* of project approvals – shapes project economics

Big policy/regulatory levers yet to be clarified, e.g.:

- Clean Electricity Regulations

- Investment Tax Credits

- Oil and Gas Emissions Cap

- UNDRIP implementation

- Financial support measures (e.g., Canada Growth Fund)

Ibid at provincial level

Lack of alignment/coordination fed-prov

Risk of policy reversals if new governments elected

# Project approvals/permitting: The Challenges

Timelines (but it's not just about time!)

Unclear rules for evaluating projects

designation, scoping, cumulative effects,

Indigenous consultation

Lack of clarity around Indigenous-led

impact assessment & regulation

Politicians and project approvals

Permitting

System capacity

# Opportunities and solution-seeking

Establish policy clarity/certainty

On project decision-making

Clarify priorities, rules and trade-offs upfront

Sequencing/streamlining

Where feasible/desirable on consultation

Integrated assessments

Permitting

Federal-provincial-Indigenous collaboration

Indigenous-led assessments and regulation

Prioritizing for review

Types of projects

Types of risks

Guardrails for cabinet/ministers

Proceed carefully with 'fast-tracking'



# Ensuring energy is reliable and affordable

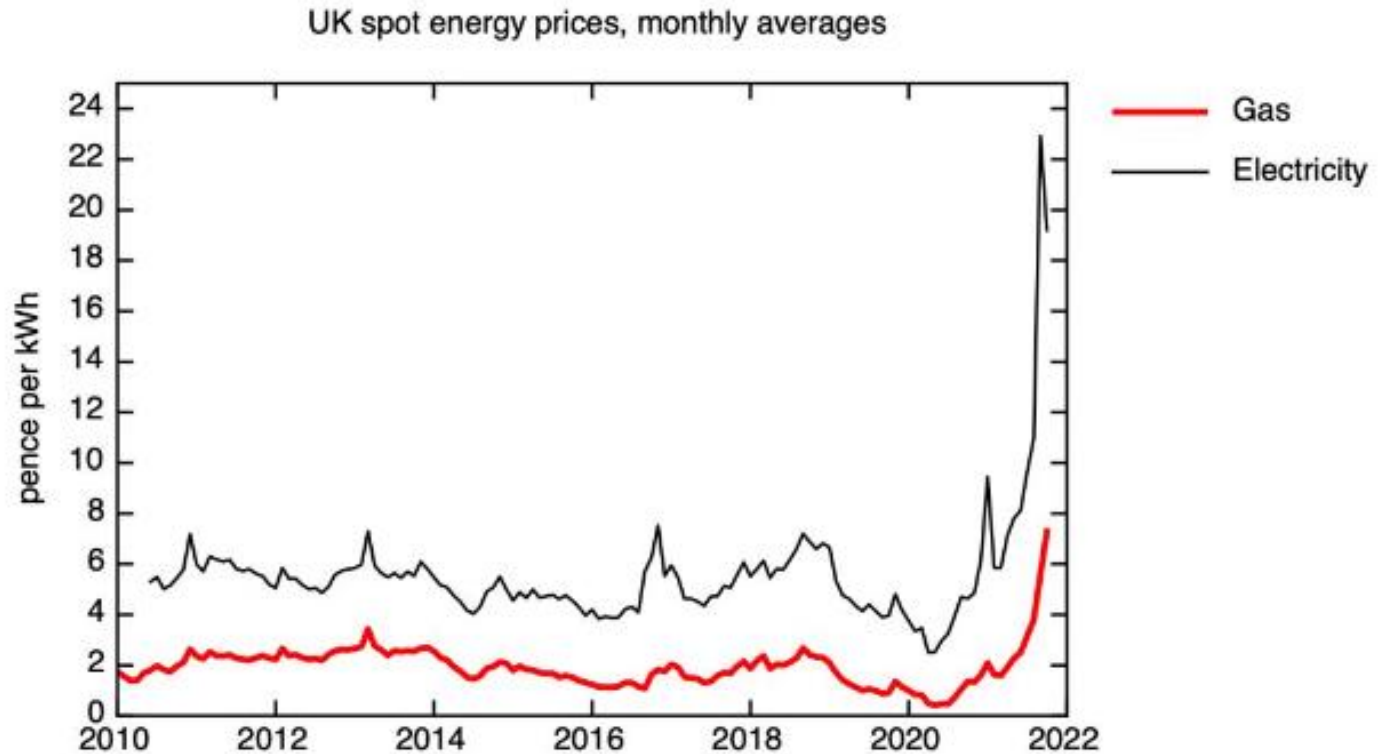
## Energy security

- *Ensuring the uninterrupted availability of energy sources at an affordable price*

International Energy Agency







UK gas and electricity spot prices (monthly rolling average of “day-ahead” prices). Data: [OFGEM](https://www.ofgem.gov.uk)





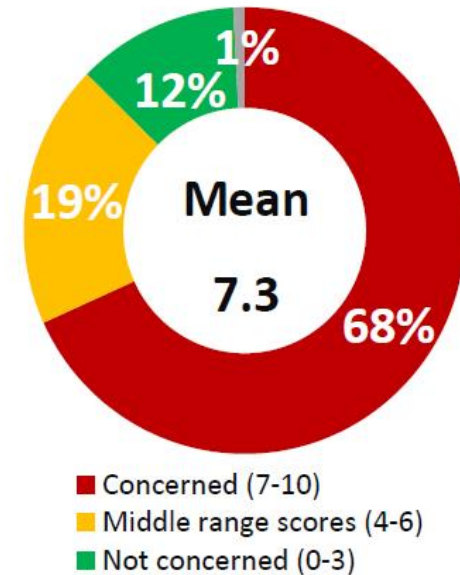
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# Level of concern for energy prices over next six months

Q – On a scale of 0 to 10 where 0 is not at all concerned and 10 is very concerned, how would you rate your concern for energy prices you will pay for things like heating and transportation over the next six months?

Atlantic (n=100)	Quebec (n=233)	Ontario (n=372)	Prairies (n=233)	BC (n=146)	Mean
<b>8.2</b>	<b>6.9</b>	<b>7.4</b>	<b>7.7</b>	<b>6.6</b>	
Men (n=568)	Women (n=516)	18-34 (n=184)	35-54 (n=409)	55 plus (n=491)	
<b>7.2</b>	<b>7.4</b>	<b>7.1</b>	<b>7.6</b>	<b>7.2</b>	
Usually votes LPC (n=342)	Usually votes CPC (n=270)	Usually votes NDP (n=158)	Left-leaning (n=289)	Right-leaning (n=195)	
<b>6.9</b>	<b>8.2</b>	<b>6.6</b>	<b>6.5</b>	<b>8.1</b>	



\*Weighted to the true population proportion.  
\*Charts may not add up to 100 due to rounding.

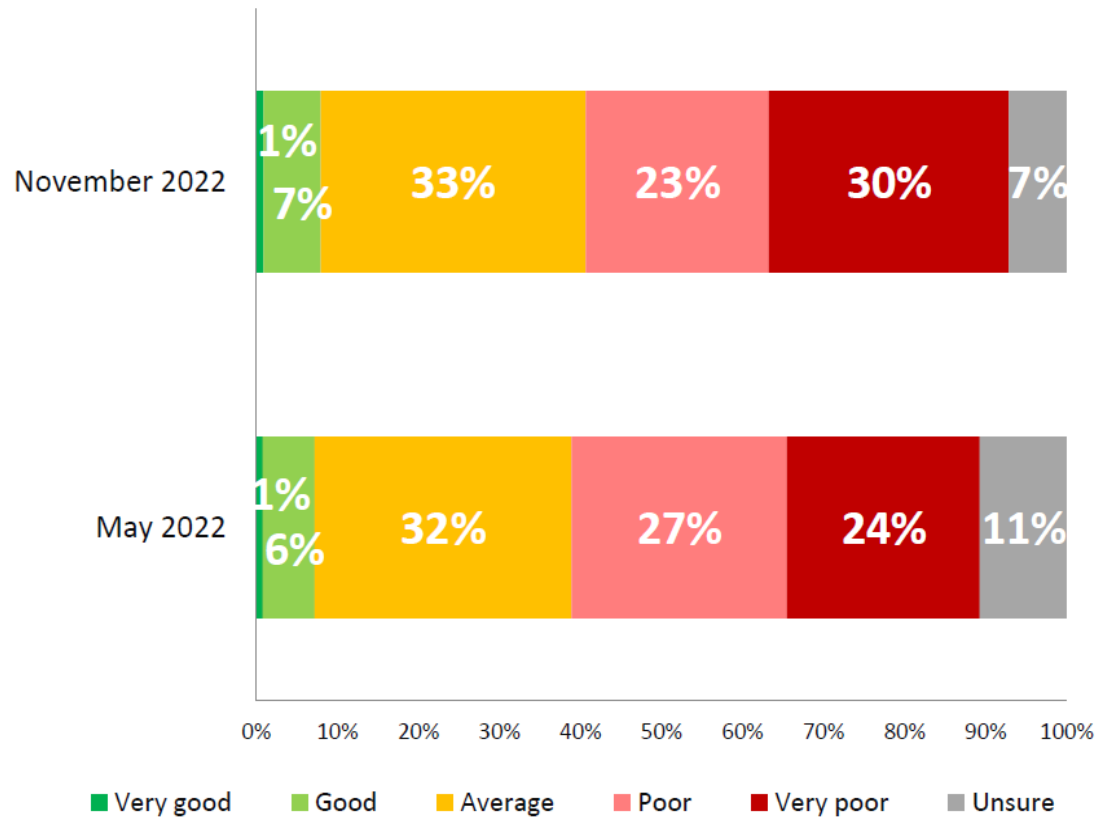
Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30<sup>th</sup> to November 4<sup>th</sup>, 2022, n=1,084, accurate 3.0 percentage points plus or minus, 19 times out of 20.



## Job done by governments in Canada at ensuring energy is affordable

➤ There has been a noticeable increase in the proportion of Canadians who think governments in Canada do an outright **very poor job** of ensuring energy is affordable as Canada works to meet its climate change targets since May (30% in November 2022 compared to 24% in May 2022).

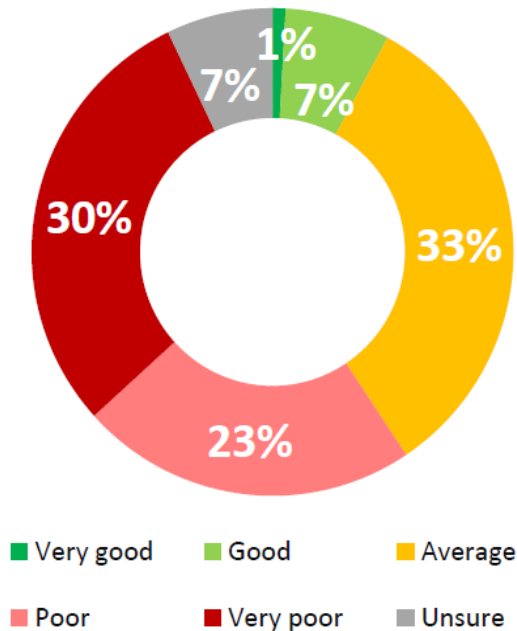
Q – Do governments in Canada do a very good, good, average, poor or very poor job of ensuring energy is affordable as Canada works to meet its climate change targets?



\*Weighted to the true population proportion.  
 \*Charts may not add up to 100 due to rounding.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30th to November 4th, 2022, n=1,084, accurate 3.0 percentage points plus or minus, 19 times out of 20.

## Job done by governments in Canada at ensuring energy is affordable as Canada works to meet its climate change targets



**Q** Do governments in Canada do a very good, good, average, poor or very poor job of ensuring energy is affordable as Canada works to meet its climate change targets?

	Atlantic (n=100)	Quebec (n=233)	Ontario (n=372)	Prairies (n=233)	BC (n=146)
Very poor/ poor	<b>64.8%</b>	<b>38.3%</b>	<b>55.8%</b>	<b>63.9%</b>	<b>44.7%</b>
	Men (n=568)	Women (n=516)	18-34 (n=184)	35-54 (n=409)	55 plus (n=491)
	<b>59.7%</b>	<b>45.1%</b>	<b>55.0%</b>	<b>54.8%</b>	<b>48.5%</b>
	Usually votes LPC (n=342)	Usually votes CPC (n=270)	Usually votes NDP (n=158)	Left-leaning (n=289)	Right-leaning (n=195)
	<b>30.9%</b>	<b>81.1%</b>	<b>42.1%</b>	<b>38.6%</b>	<b>73.8%</b>

\*Weighted to the true population proportion.  
 \*Charts may not add up to 100 due to rounding.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30<sup>th</sup> to November 4<sup>th</sup>, 2022, n=1,084, accurate 3.0 percentage points plus or minus, 19 times out of 20.

# Reasons for impression of job done by governments in Canada at ensuring energy is affordable as Canada works to meet its climate change targets

Q Why do you have that opinion? [OPEN]

	All		Very good/ good		Average		Very poor/ poor		Unsure	
	Nov 2022 (n=830)	May 2022 (n=778)	Nov 2022 (n=65)	May 2022 (n=56)	Nov 2022 (n=249)	May 2022 (n=220)	Nov 2022 (n=471)	May 2022 (n=440)	Nov 2022 (n=45)	May 2022 (n=62)
	<b>TOP RESPONSES</b>									
Energy/green alternatives/gas prices are high	18.6%	44.7%	5.2%	35.3%	12.6%	37.9%	25.2%	55.0%	4.6%	10.7%
Carbon tax is not effective/drives up all costs	12.6%	8.1%	3.4%	6.4%	3.8%	5.3%	20.0%	11.2%	-	-
There has been no real action/government has no say in it	8.9%	11.2%	5.0%	-	13.3%	12.1%	6.3%	12.4%	16.0%	9.0%
Corporate greed/ profits/ industry lobby [NEW]	8.0%	N/A	1.3%	N/A	8.0%	N/A	9.5%	N/A	2.0%	N/A
The governments are corrupt/ they have their own agenda/ controlled by special interests [NEW]	7.7%	N/A	2.9%	N/A	2.9%	N/A	11.9%	N/A	-	N/A
They are on the right path/they are putting effort, but more can be done	7.5%	7.1%	27.9%	17.0%	16.2%	16.7%	0.5%	0.9%	-	6.8%

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30<sup>th</sup> to November 4<sup>th</sup>, 2022, n=830, accurate 3.4 percentage points plus or minus, 19 times out of 20.



# Building consensus among the public and among experts

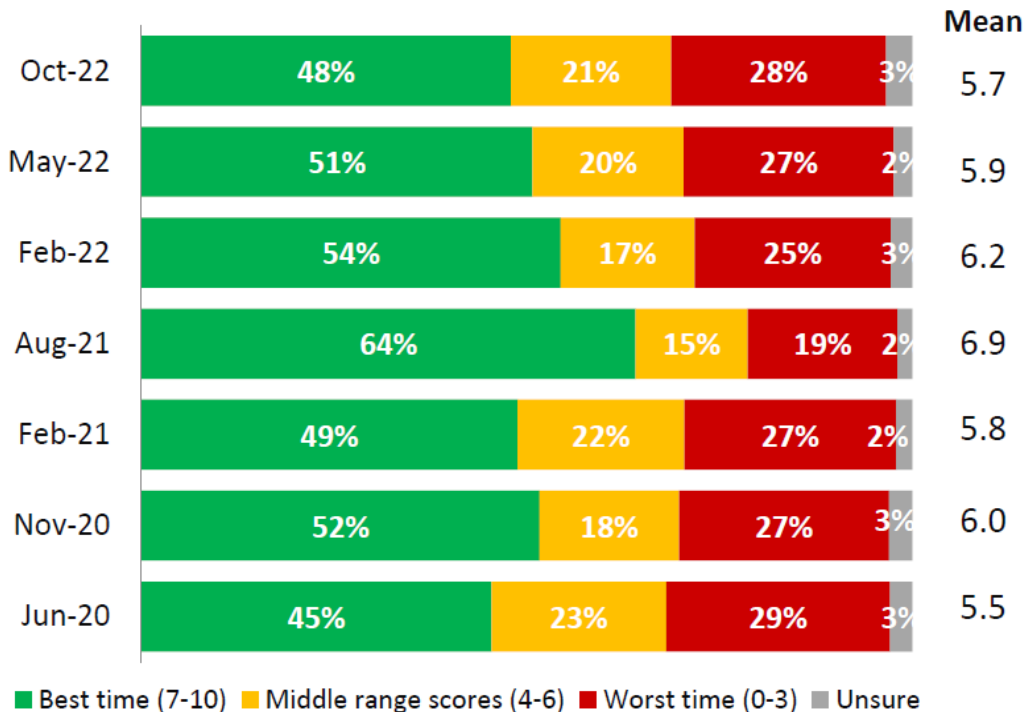
## The general public

- Overall, Canadians generally agree on the big picture issues of energy and climate
- Where they disagree, opinions are more often fragmented than polarized – room for compromise
- BUT:
  - Opinions can be polarized along partisan lines
  - Agreement not evenly distributed across the country
- AND:
  - People think governments are doing a poor job on crucial matters of public confidence
  - Climate ambition has not yet been put to the test on cost

## Good time for Canada to be ambitious in addressing climate change

Q

As you know many Canadians are concerned about both [ROTATE] climate change and the economy. On a scale of 0 to 10 where 0 means this is absolutely the worst time and 10 is absolutely the best time, how good a time is it for Canada to be ambitious in addressing climate change even if there are costs to the economy?



“The proportion of Canadians who think it is the best time for Canada to be ambitious in addressing climate change even if there are costs to the economy continues its steady decline since August 2021.

Residents of Quebec (mean score of 6.7 out of 10) and B.C. (mean score of 6.5) are most likely to think it is the best time.”

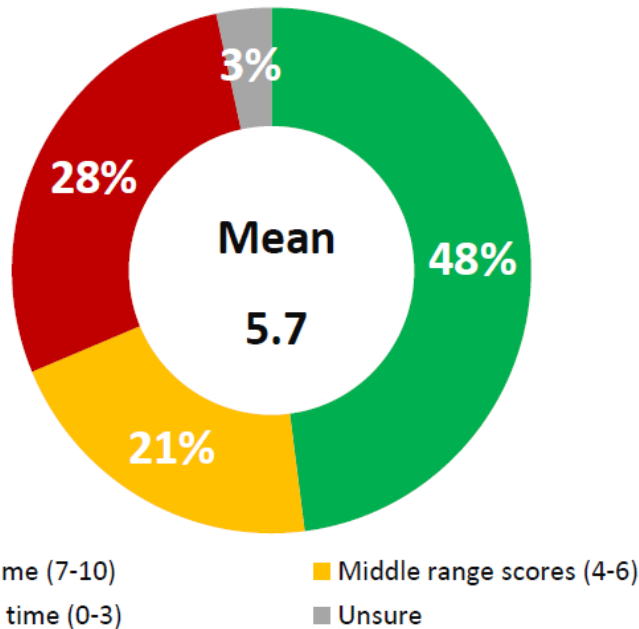
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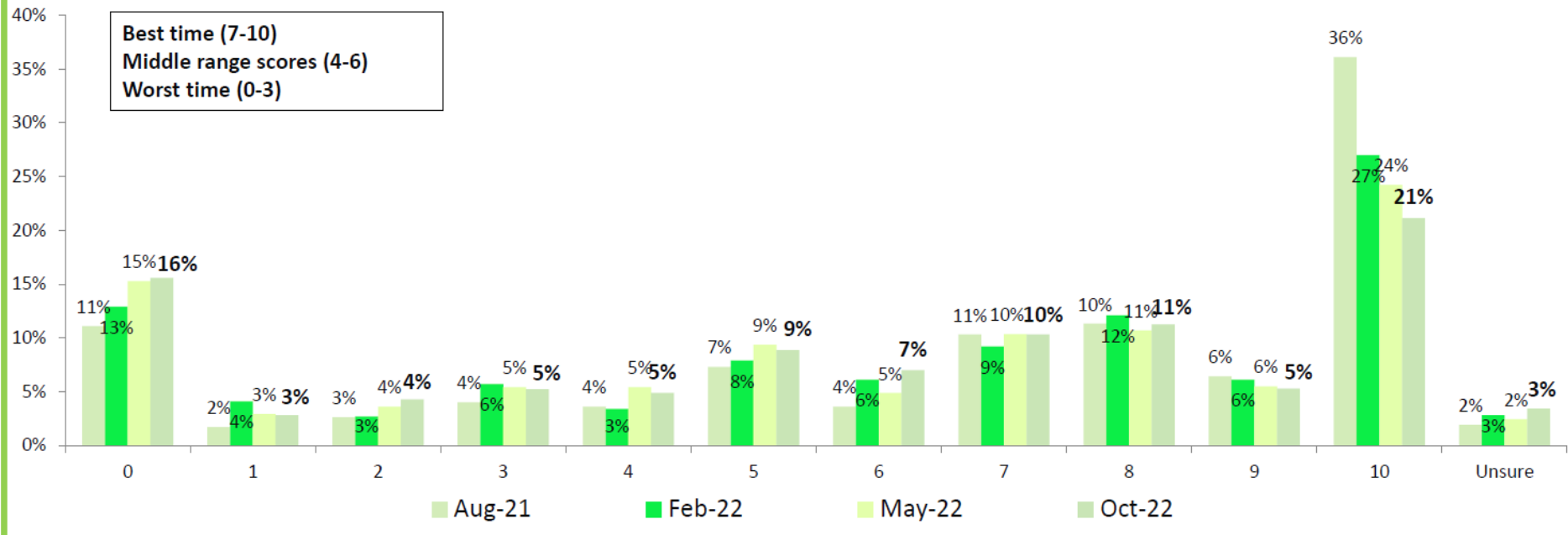
	Atlantic (n=100)	Quebec (n=233)	Ontario (n=372)	Prairies (n=233)	BC (n=146)
<b>Mean</b>	<b>5.6</b>	<b>6.7</b>	<b>5.5</b>	<b>4.5</b>	<b>6.5</b>
	Men (n=568)	Women (n=516)	18-34 (n=184)	35-54 (n=409)	55 plus (n=491)
	<b>5.3</b>	<b>6.2</b>	<b>5.8</b>	<b>5.4</b>	<b>6.0</b>
	Usually votes LPC (n=342)	Usually votes CPC (n=270)	Usually votes NDP (n=158)	Left-leaning (n=289)	Right-leaning (n=195)
	<b>6.9</b>	<b>2.4</b>	<b>7.8</b>	<b>7.8</b>	<b>3.3</b>

\*Weighted to the true population proportion.  
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Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30<sup>th</sup> to November 4<sup>th</sup>, 2022, n=1,084, accurate 3.0 percentage points plus or minus, 19 times out of 20.

# Distribution of responses on timeliness of Canada to be ambitious addressing climate change

Q – As you know many Canadians are concerned about both [ROTATE] climate change and the economy. On a scale of 0 to 10 where 0 means this is absolutely the worst time and 10 is absolutely the best time, how good a time is it for Canada to be ambitious in addressing climate change even if there are costs to the economy?



\*Weighted to the true population proportion.

\*Charts may not add up to 100 due to rounding.

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30<sup>th</sup> to November 4<sup>th</sup>, 2022, n=1,084, accurate 3.0 percentage points plus or minus, 19 times out of 20.

## Reason for considering timeliness of Canada to be ambitious in addressing climate change

Q Why do you have that opinion? [OPEN]

	Total			Best Time (7-10)			Neutral (4-6)			Worst Time (0-3)		
	2022-11 (n=820)	2022-02 (n=872)	2021-08 (n=884)	2022-11 (n=404)	2022-02 (n=493)	2021-08 (n=567)	2022-11 (n=152)	2022-02 (n=137)	2021-08 (n=120)	2022-11 (n=245)	2022-02 (n=222)	2021-08 (n=181)
We need to act now, climate change can't wait	45.8%	48.4%	52.5%	79.9%	79.9%	77.1%	25.2%	14.8%	14.5%	0.7%	2.0%	1.6%
The current financial situation/ inflation/ upcoming recession [NEW]	11.6%	N/A	N/A	2.5%	N/A	N/A	13.6%	N/A	N/A	27.7%	N/A	N/A
The government has not been effective in addressing climate changes/There is absolutely nothing Canada can do to alter Climate change in any meaningful way	8.5%	2.2%	-	4.2%	0.5%	-	14.1%	1.9%	-	13.0%	5.7%	-
We should wait until the economy has recovered from the effects of the pandemic	6.4%	14.7%	9.8%	1.1%	3.1%	2.8%	12.0%	25.0%	17.9%	12.7%	34.4%	26.8%
There are other priorities/Focus should be on health/vaccine/ basic needs	5.2%	8.1%	5.6%	0.8%	2.2%	1.8%	10.8%	14.0%	16.6%	9.8%	17.9%	11.0%
Diversifying into alternative energy sources and more environmentally friendly solutions could help the economy and create new jobs	3.9%	3.4%	4.8%	3.1%	3.5%	6.0%	2.4%	5.2%	3.4%	6.2%	2.4%	2.1%
Addressing climate change would cost too much money/ raise taxes	3.6%	4.5%	3.5%	0.8%	1.1%	0.5%	5.7%	8.1%	8.6%	7.6%	10.4%	10.0%
Both the economy and the environment need to be taken into consideration	3.5%	4.7%	4.4%	3.0%	3.2%	3.5%	7.0%	15.0%	12.4%	1.7%	2.0%	1.5%
I do not believe climate change is real or caused by humans	2.1%	3.2%	5.1%	-	0.1%	-	1.2%	2.2%	5.2%	6.5%	10.7%	20.6%
Canada's impact on climate change is minimal	2.0%	3.7%	3.5%	-	0.6%	0.4%	0.5%	3.9%	4.7%	5.5%	11.0%	13.0%

Source: Nanos Research, RDD dual frame hybrid telephone and online random survey, October 30<sup>th</sup> to November 4<sup>th</sup>, 2022, n=820, accurate 3.4 percentage points plus or minus, 19 times out of 20.

# Building consensus among the public and among experts

## Experts

- Energy and climate experts can be more divided than the general public when it comes to the energy and climate future, specifically over:
  - Scope of change (future of oil and gas, future energy portfolio)
  - Pace of change

**Crucially, changing minds and fostering consensus is not just about providing better 'facts'**

# Expert Opinion: 'Two Realities'

'What is Transition?' study

Semi-structured interviews with 42 senior energy and environmental leaders

- Split on usage of term "transition"
- Pros: accessible, familiar
- Cons: vague, politicized, overused, non-inclusive
- Fairly broad consensus that the term is unhelpful

But it is broadly used...





# ...and relates to two different realities

	Reality I	Reality II
Scope of Change	<ul style="list-style-type: none"> <li>• Canada's energy portfolio should be diverse (fossil fuels, renewables, nuclear, CCUS)</li> <li>• Oil &amp; gas should and will continue to play a big role in Canada's energy future</li> <li>• Innovations will slowly decouple activity from GHG emissions</li> </ul>	<ul style="list-style-type: none"> <li>• Focused on reducing GHG emissions, but occasionally folds in political, economic, democratic reforms</li> <li>• Canada's oil industry should and will face a slow, certain phase-out</li> <li>• Fossil fuel use must be drastically reduced if the 'climate crisis' is to be meaningfully addressed</li> </ul>
Pace of Change	<ul style="list-style-type: none"> <li>• Slow and measured GHG reductions</li> <li>• Reasonable, measured transition dictated by market forces</li> </ul>	<ul style="list-style-type: none"> <li>• Urgent action driven by science</li> <li>• Transition dictated by market forces, policy interventions, and culture shifts</li> </ul>

# Intergovernmental collaboration and partisan polarization



# The Path Forward

- **Infrastructure decision-making, tech deployment:** balance/align community and investor needs; engagement and partnerships are key; regulatory innovation crucial; facts: necessary but insufficient
- **Energy reliability and affordability:** solve for both emissions reductions and energy security
- **Public/experts:** want climate action and energy devt but issues can be divisive and polarizing – build on areas of agreement and use inclusive approaches
- **Intergovernmental collaboration and polarization:** seize windows of opportunity for pan-Canadian initiatives (bilateral/unilateral in between); work to build consensus amid partisan polarization

# The Path Forward

- Period of unprecedented experimentation in policy, regulation, programs
- Coordinate/align and learn what works
- Create intra and intergovernmental forums for exchange, alignment, collaboration and coordination
- Create space/support to take risks, innovate, pilot new approaches and learn
- Growing recognition/appetite for this

# Concluding thoughts

- Pace and scale of net zero is unprecedented
- So is role of government in transition
- Crucial to address climate and energy objectives
  - Emissions reductions, other environmental impacts
  - Affordability, reliability, safety, resilience
  - Competitiveness and investment environment
  - Public support, reconciliation
- Requires unprecedented investment in new energy infrastructure
- Need whole of system thinking, willingness to take risks, learn and collaborate