Earning Trust in the Transition

H₂

Public Support and Trust in Ontario Climate and Energy Policies



Acknowledgements



This paper was produced in partnership with Dr Runa Das, Associate Professor, Royal Roads University. A more detailed version of this research will be published in a forthcoming peer-reviewed academic publication in an interdisciplinary energy research journal.

This research was supported by a Partnership Engage Social Sciences and Humanities Research Council (SSHRC) [892-2019-1006] grant. The funding source had no involvement in study design; in the collection, analysis, and interpretation of data; in the writing of the article; and the decision to submit the article for publication. The authors thank Dr. Reuven Sussman from ACEEE and Professor Ann Dale from Royal Roads University for their assistance.

Contact

Richard Carlson rcarlson@pollutionprobe.org Pollution Probe

Runa Das Runa.Das@royalroads.ca Associate Professor, Royal Roads University

June 2024

2

Executive summary

Public support is crucial for the success of net-zero policies. Equally important is the trust in those advocating for or developing them. The failure of Ontario's Green Energy Act exemplifies the consequences of governments neglecting public engagement and support for policies.

Gaining public support for an energy transition strategy has two main components. Firstly, the public must support or be comfortable with the chosen policies and technologies. Secondly, they must trust the actors involved.

This paper identifies energy transition policies and trusted actors based on the results of a recent Ontario survey. The survey revealed that Ontarians generally support energy policies aimed at reducing emissions. Policies with the highest support include the promotion of renewable natural gas (RNG), wind and solar energy, and energy efficiency. Conversely, policies promoting home electrification, oil and gas, and a carbon tax are the least supported.

In addition, it is important that the public trust the actors that are promoting or developing the policy if they are to support them. University researchers, scientists, and non-profit organizations are the most trusted, followed by the three levels of government. While utilities do not enjoy high levels of general trust, they are considered competent. Mainstream media and oil and gas companies have the lowest levels of trust. As future net-zero policies are expected to necessitate significant changes in Ontarians' energy consumption and may encounter less robust public backing, policymakers can implement strategies to:

> Involve "early movers" to advocate for new technologies and practices and share success stories¹

> Foster open and transparent discussions about the desired net-zero future and the trade-offs regarding costs and decision-making

> Engage trusted communities and groups early on to enable meaningful contributions

> Build trust by launching engagement plans for new or existing policies that entail substantial dialogue and involvement.



1 | Introduction

4



The shift to non-emitting energy sources is crucial for Canada to achieve its net-zero economy by 2050 goal and combat climate change. While previous decarbonization efforts, such as the phasing out coal power and increasing renewables, have largely gone unnoticed by consumers, the next phase will demand greater public engagement. Meeting targets will require Canadians to change how they travel and how they heat their homes,² as well as require expansion of energy infrastructure in places that previously have not seen such infrastructure.

Public support for these changes is essential,³ as demonstrated by the response to Ontario's Green Energy Act. Factors influencing policy support encompass social, psychological, demographic, and contextual elements. Trust plays a pivotal role,⁴ and it is important that the public trusts the person or organization making the decision.⁵ As fairness and equity in the energy transition gain significance, public trust in decision-makers becomes even more critical. Policy support and trust are key in garnering public backing for the energy transition. The public must endorse or feel comfortable with the chosen policies and technologies, while also trusting the involved entities, whether federal, provincial, or municipal governments, utilities, private sector firms, or public-interest stakeholders like NGOs or academics/scientists. Perceptions of these entities also influence opinions on who should bear the costs of the transition.

Given the decarbonization timelines, Canada cannot risk backtracking, meaning that ensuring public support is even more crucial.⁶ Based on a survey conducted in Ontario examining public opinion of different energy transition pathways and in the actors they trust, this report examines the policies the public support, who they trust to achieve those policies and who should pay. It offers potential pathways to increasing support for net-zero policies and increasing trust.

² Pollution Probe, Decarbonizing Residential Heating, 2023, https://www.pollutionprobe.org/pollution-probe-releases-new-paper-decarbonizing-residentialheating/

³ Ekaterina Rhodes, Jonn Axsen, and Mark Jaccard, "Exploring citizen support for different types of climate policy," Ecological Economics, 137, 2018, 56–69, https:// doi.org/10.1016/j.ecolecon.2017.02.027.

⁴ Lu Liu, et al, "Effects of trust and public participation on acceptability of renewable energy projects in the Netherlands and China," Energy Research and Social Science, 53, September 2018, 137–144, https://doi.org/10.1016/j.erss.2019.03.006

⁵ Linda Steg, et al., "Understanding the human dimensions of a sustainable energy transition," Frontiers in Psychology, 2015, June, 1–17, https://doi.org/10.3389/ fpsyg.2015.00805

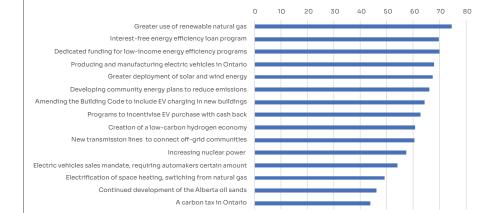
⁶ Linda Steg, et al, "Understanding the human dimensions of a sustainable energy transition," Frontiers in Psychology, 2015, 6 (June), 1–17, https://doi.org/10.3389/ fpsyg.2015.00805

2 | Survey responses

To examine how Ontarians support different policies and actors in Ontario's energy system, we designed a 25-minute online survey, administered in November 2021, using the market research company Leger Opinion (LEO).⁷ The survey looked at public support for different energy policies, levels of trust for various actors, and who should pay for the transition to a net-zero energy system.

Figure 1 illustrates the level of support for various energy policies in Ontario. Overall, Ontarians favour policies aimed at reducing emissions. Specifically, there is backing for the advancement of lowcarbon energy sources such as solar and wind power, as well as for energy efficiency measures. Renewable natural gas (RNG) has the highest level of support, although this support tends to be lower among those not currently using natural gas for heating. Conversely, an electric vehicle mandate, home electrification, oil and gas development, and a carbon tax are the least favoured policies. Evidently, this appears to indicate that the public favours policies that align with their current energy consumption practices, albeit in a more environmentally responsible manner.

Figure 1: Support for Ontario climate-related energy policies



7 Leger Opinion uses proprietary software in accordance with Canadian census data to generate representative samples of the population. For our study LEO acquired data from a representative sample of Ontario households aged 18 years and older based on quotas for gender, age, education, household income, race and ethnicity, and geography (i.e., regions within Ontario). Participants received 2000 LEO points for completing the survey, which translates into \$2.00 or 50 Aeroplan points. The final sample consisted of 1,620 respondents; Ontario's population in 2021 was approximately 14.57 million people. The survey was conducted in English.

To ensure the implementation of these policies, the public must trust the various actors involved in energy systems and the energy transition. Figure 2 examines four aspects of Ontarians' trust in different actors:

1 General trust in the actor

2 Integrity trust, which reflects the public's trust in the organizations' integrity

3 Competency trust, indicating the public's trust in the actor's competence

4 Value similarity, reflecting the alignment of the public's values with those of the actor.

Regarding general trust, scientists, university researchers, and non-profit organizations were most frequently rated as having "high" or "very high" levels of general trust. Most other actors were perceived as having "medium" levels of trust, with municipal government (49%), provincial government (39%), federal government (37%), renewable energy companies (43%), non-profit organizations (33%), utilities (42%), and mainstream media (40%) falling into this category. Oil and gas companies were an exception, as "low" levels of trust (31%) were most frequently chosen.

Similar to the results on general trust, respondents saw most actors generally having "medium" levels of competency, with the exception of scientists and researchers and non-profit organizations who were perceived to have "high" or "very high" levels of competency. Those receiving the lowest competency rating category (i.e., "very low" and "low") were mainstream media, oil and gas companies, and federal and provincial governments (54%, 45%, 39%, 44%, respectively). In integrity trust, similar patterns emerged. Most frequently "very low" and "low" levels of integrity ratings were given to oil and gas companies (72%) followed by provincial government (61%), utilities (60%), federal government (56%), and mainstream media (56%).

With respect to integrity, scientists and university researchers as well as non-profits received the highest proportions in the "high" and "very high" response categories (39%, 33%, respectively). In value similarity, survey respondents reported most frequently having "high" and "very high" value similarity with scientists and university researchers, non-profit organizations, and renewable energy companies (54%, 48%, 38%, respectively). Respondents felt the least amount of value similarity with oil and gas, mainstream media, and provincial and federal governments (51%, 41%, 44%, 38%, respectively).

The results on trust lead to the following conclusions:

> University researchers, scientists, and non-profit organizations are the most trusted and perceived to have the highest levels of integrity and value similarity.

> Trust in mainstream media is low across all four areas.

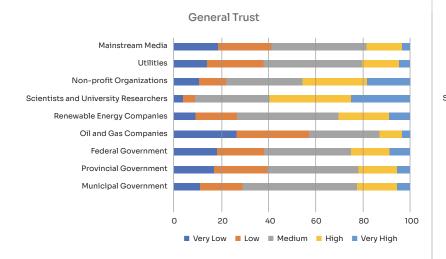
> Among the three levels of government, municipal governments experience lower levels of mistrust and higher levels of value similarity, possibly due to the perception of being closer to the public.

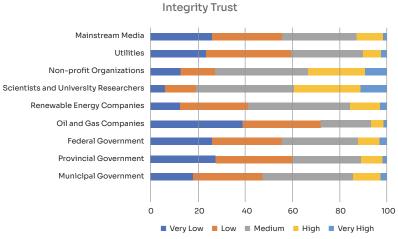
> While utilities do not have high levels of general trust and integrity trust, they are generally considered competent.

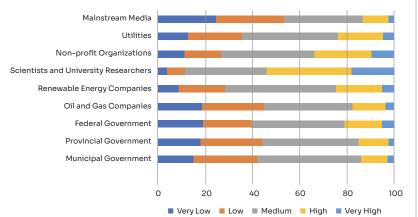
> Apart from utilities, oil and gas companies exhibit the lowest levels of general trust and integrity trust. Conversely, renewable energy companies enjoy relatively high levels of trust, albeit with slightly lower integrity trust, possibly due to profit motives.

6

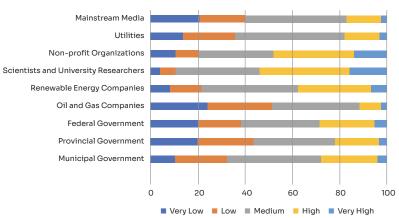








Competency Trust

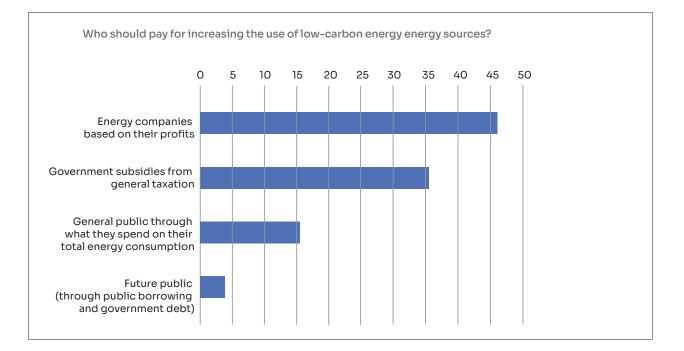


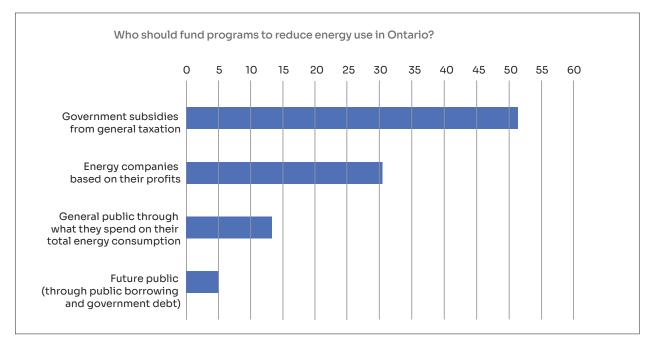
Integrity Trust

When surveyed about who should cover the cost of low-carbon resources and energy efficiency (see Figure 3), there is minimal support for funding through energy bills. Instead, there is more backing for energy companies to invest or for the government

to take the lead through taxation. It is worth noting that in Ontario, charges for lowcarbon resources were previously included in electricity bills, but some of the expenses have recently been shifted to general taxation in order to lower electricity bills.

Figure 3: Who should pay for the use of low-carbon energy sources and for energy efficiency





3 | Understanding public support



To understand public support for different energy transition policies, we will concentrate on six key policies that are generally identified in models of future energy systems as crucial for achieving a net-zero energy system: solar and wind, nuclear, renewable natural gas (RNG), hydrogen, energy efficiency, and electrification. The analysis reveals varying levels of support for these policies:

- > Strong support for RNG
- > Strong support for energy efficiency
- > Strong support for solar and wind energy
- > Moderate support for hydrogen
- > Moderate support for nuclear
- > Relatively low support for electrification.

The notable support for RNG, renewables, hydrogen, and nuclear may be due to the perception that their development would not greatly disrupt residents' energy consumption patterns or in-home technology. Regardless of the energy source, consumers would be able to continue using electricity and heating their homes in a similar manner, just with cleaner resources. Energy efficiency improvements also align with this approach, as that would only entail changing their usage, but just using it more efficiently.

Getty Images/SasinParaksa

⁸ Pollution Probe, Decarbonizing Residential Heating, 2023, https://www.pollutionprobe.org/pollution-probe-releases-new-paper-decarbonizing-residential-heating/

This indicates that people tend to support energy transition policies that they believe will not negatively impact them by increasing costs or causing inconvenience. This could explain the strong support for RNG, especially considering that approximately 76% of Ontarians rely on natural gas for heating and are familiar with it.⁸ Similarly, the development of wind and solar energy would not necessarily affect Ontarians, except for those living in close proximity to the sites. Hydrogen and nuclear technologies may be perceived as riskier or more uncertain, potentially contributing to their lower levels of support. Additionally, policies offering tangible benefits, such as low-interest loans or funding for energy efficiency, are more appealing to individuals due to the immediate and understandable advantages they could provide.

10

In comparison, policies that promote a shift away from natural gas to electrification – a policy choice that tends to be promoted in net-zero studies – have lower levels of support. This lower level of support could be due to many seeing electrification as risky in the sense as they do not necessarily understand how it can provide similar energy services, and they have concerns over the cost of energy.⁹ Electrification is also likely seen as more inconvenient in that the consumer would be required to actively decide to invest in new equipment and electrification will require significant changes to how we use energy to heat our homes or travel. The results also show that if trusted actors support riskier or uncertain technologies, support can be increased. This finding agrees with other research that shows that how we use energy has a social component to it, and we need to ensure that the social component is addressed when developing energy transition policies.¹⁰

From this analysis, three primary conclusions can be drawn regarding public backing for various energy policies:

> Policies that do not inconvenience consumers or alter energy usage in homes, while providing cost certainty, garner greater support.

> There is increased backing for policies that offer tangible benefits, such as energy efficiency.

> Technologies perceived as risky or uncertain tend to have lower support, but endorsement from trusted entities like NGOs or academics can bolster support.

9 International Energy Agency, Electrification, n.d., https://www.iea.org/energy-system/electricity/electrification

10 Aimee Ambrose, Kathy Davies and Becky Shaw, How were past heating transitions experienced and what can they tell us about making low carbon heating a success?, UK Energy Research Council, February 1, 2024, https://ukerc.ac.uk/news/how-were-past-heating-transitions-experienced

4 | Potential policy responses



The energy transition is more than just a single policy or technical exercise. Energy is of significant importance for individuals and communities, and policymakers must consider the social aspect of energy use.

11

While there is widespread support for decarbonization and achieving net zero, there is inconsistency in the approaches to reach these goals. Some in Ontario do not endorse ambitious decarbonization policies. And in a democratic society, greater public support presents an opportunity to expedite changes. Past energy policy flip-flops in Ontario underscore the critical need to secure and maintain public support and ensure policy stability to meet long-term objectives.

Effectively and equitably transitioning to a clean energy future necessitates diverse policies, in many different areas, and focusing on many end-use cases. The survey indicates the need for Ontario to facilitate a smoother transition and involve its citizens. Net-zero policies should be designed to minimize inconvenience, simplify the transition, and demonstrate low risk.

However, this desire to meet people where they are should not be an excuse to maintain the status quo or opt for easy policies. Ontario must swiftly transition to a net-zero energy system without delay. Rather, this highlights the need to start where people and communities are at, and the need for garnering support and highlighting successes. Achieving a netzero system requires transparency about costs and consumer expectations, while emphasizing the long-term benefits, such as reduced costs, improved air quality, and overall public health. Getting to net-zero is a "whole-of-society" concern. We see that there is general distrust in companies, media and in varying degrees in government. Widespread skepticism towards corporations, media, and government at different levels is evident. Although utilities are perceived as competent and are likely to play a significant role due to their technical expertise and existing infrastructure, they lack trust. Conversely, NGOs and academics are trusted but lack the technical capacity to lead.

12

Collaboration is essential, as no single actor can accomplish this alone. For instance, support from scientists, researchers, or NGOs for a challenging policy can lead to broader acceptance. This is crucial, as government policies are not universally trusted and require assistance. Engaging more individuals, particularly those with direct community ties, necessitates thorough planning and consultation, which can happen in parallel with funding early movers and getting them to be the champions. Research has shown that the likelihood of an individual installing solar panels increases by 89% if they know someone who has already done so,¹¹ a trend also observed with electric vehicles.

When policymakers are working to develop policies to achieve net-zero that may not have the current full support of the public, they need to:

> Involve "early movers" to advocate for new technologies and practices and share success stories

> Foster open and transparent discussions about the desired net-zero future and the trade-offs regarding costs and decision-making

> Engage trusted communities and groups early on to enable meaningful contributions

> Build trust by launching engagement plans for new or existing policies that entail substantial dialogue and involvement.

Ontario, like the rest of Canada, must transition to a net-zero energy system. Ontario needs to make this net-zero transition include all communities, to build trust by bringing groups together and bringing people and communities along so they see the benefits to themselves with the transition. Without public support and trust in the actors driving the energy transition, the process is likely to face significant challenges and delays, leading to higher costs, or even becoming impossible.

11 Glòria Serra-Coch, Romano Wyss and Claudia R. Binder, "Geographic network effects to engage people in the energy transition: The case of PV in Switzerland," Heliyon, July 2023. https://doi.org/10.1016/j.heliyon.2023.e17800/; Eric O'Shaughnessy et al., "Impacts of non-residential solar on residential adoption decisions," Front. Sustain. Energy Policy, November 2023, Volume 2, https://doi.org/10.3389/fsuep.2023.1203517