

# Engagement on Canada's 2030 Emission Reduction Plan

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## Section 1: Achieving our 2030 Emissions Reduction Target of 40 – 45% by 2030

In April 2021, Canada announced an enhanced Nationally Determined Contribution (NDC) to cut its greenhouse gas emissions by 40 – 45% below 2005 levels by 2030. This new target was formally submitted to the United Nations in July 2021.

Efforts to date:

- Over the last five years, the Government of Canada, in collaboration with provinces, territories, Indigenous Peoples, and civil society, has undertaken an intensive effort to reduce national emissions.
- In December 2016, Canada released its first ever national climate plan, the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) to reduce carbon pollution, build Canada's resilience to a changing climate and drive clean growth. The PCF outlines over 50 individual and joint federal, provincial and territorial measures, complemented by over \$60 billion in federal investments.
- Four years later, in December 2020, the Government of Canada released A Healthy Environment and A Healthy Economy, Canada's Strengthened Climate Plan to create jobs and support people, communities and the planet.
- The measures announced in Canada's Strengthened Climate Plan and Budget 2021, along with other actions including strengthened alignment with the United States to further cut pollution from transportation and methane emissions, puts Canada on solid path to achieving its enhanced 2030 target of 40-45% below 2005 levels.
- At COP26, Canada made significant announcements, including committing to: cap Canada's oil and gas emissions at the pace and scale needed to get to net zero by 2050; accelerate its clean energy transformation by working with provinces, territories, industry, and other stakeholders to ensure that the electricity grid achieves net-zero emissions by 2035; and reduce oil and gas methane emissions by at least 75% below 2012 levels by 2030, as part of the Global Methane Pledge.

## Context and considerations

- Measures in Canada's Strengthened Climate Plan support the achievement of Canada's 2030 emissions reduction target, as well as set the stage for longer-term reductions to achieve net-zero emissions by 2050.
- Strong and ambitious climate action by 2030 is vital to achieving net-zero emissions by 2050 – helping to create jobs and careers tomorrow and in 2030, 2040, and beyond, and spurring the development of net-zero emissions technologies and sustainable solutions.
- We will need to continue to drive emissions reductions in every sector of the economy to achieve our climate goals. We seek Canadian perspectives on the focused, targeted opportunities to achieve our ambitious goals.

**Q1. What opportunities do you think the Government of Canada should pursue to reduce emissions by 40-45% below 2005 levels by 2030 and position Canada to achieve net-zero emissions by 2050, including in any or all of the following economic sectors? Please elaborate on your answers where appropriate, including any specific insights on policy opportunities or initiatives.**

### Buildings

Retrofits: Deepen investments in building energy retrofits through amped-up and collaborative funding programs, clear performance benchmarks, and a long-term roadmap to complete deep retrofits for all of Canada's homes and buildings. Work with provincial and municipal governments to reduce red tape to enable faster, more predictable project timelines and greater resource efficiency. New Buildings: Encourage the provincial/territorial development and municipal/community use of building energy step codes such as the BC Energy Step Code. The voluntary BC Energy Step Code provides Builders with a new compliance path for meeting the energy-efficiency requirements of the BC Building Code thereby providing consistency on energy efficiency between local governments, more competition and new economic development opportunities, and reduced greenhouse gas emissions.

### Electricity

The established goal of the Canadian Electricity Grid being 100%-net-zero emitting by 2035 is a great start but as we also move to electrify many other parts of our economy - transportation, buildings - there must also be a plan to double the size of our electricity grid. The federal government should increase direct investments toward a national clean electricity system, encourage and work with provinces and territories (and cross border US states) to establish a national electricity grid, use the proposed Pan

Canadian Grid Council to bring together provinces, territories, Indigenous nations, local governments, utilities, industry, and the clean energy sector to define regional clean electricity pathways to 2035 and 2050, and streamline regulatory processes for clean energy projects with Indigenous consent and partnerships.

#### Transportation

Canada's commitment to mandate that all new light-duty vehicles sold be zero emission by 2035, with an interim sales target of at least 50 percent by 2030 is a good first step to reducing transportation emissions what is lacking is action on energy efficiency. In the personal, urban, and inter-city transportation space, there are a number of factors that are frequently overlooked - land-use planning, urban design, integration with buildings and grids, and customer needs - that directly impact the efficiency and emissions from the transportation sector. There is a significant need to focus much more on cross-sectoral innovation, on the innovation of our planning, governance, regulatory, policy, and legislative structures for solutions that will unleash the potential of EV's.

Economy-wide (e.g., carbon pricing, climate-risk disclosure, sustainable finance, etc.)

There is a significant need to focus much more on cross-sectoral innovation, on the innovation of our planning, governance, regulatory, policy, and legislative structures for solutions that will unleash the potential of the technological innovations we have in place today and are developing for the future. We cannot sustain a net-zero economy without the buy-in and support of communities and without innovating the structures (governance, regulatory, legislative, etc.) that our society has been built on and functions off of.

#### Other, please specify

Communities are responsible for over half of Canada's energy use and GHG emissions. For Canada to meet or exceed its climate and net-zero targets in a just way, communities must be involved in the solutions. Communities are important because they are the ecosystem in which society functions. Canada needs communities to drive the change needed in the systems and structures embedded in our society and institutions to achieve a truly durable and just net-zero economy.

Please tell us more:

Canada cannot achieve its net-zero objective without the participation of communities. Below are four primary conditions that are necessary for communities in Canada to effectively contribute to the net-zero objective.

Institutional and Corporate Readiness - a strong backing of independent, open, inclusive, adaptable, and stable energy decision-making systems and corresponding governance models that are expeditious, accountable, and backed by knowledgeable and reliable government institutions. This is a must for the

successful adoption of clean technology, much of which will occur as grid-connected distributed energy resources and/or integrated solutions at the local level.

Aligned Financial Mechanisms - establishing financial mechanisms that enable significant investment from the private sector and strong returns on investment is also critical for the deployment of local energy and energy efficiency solutions as governments do not have the funds needed for the scale of investment required.

Market Supportive Policies - currently in Canada there is a misalignment between existing energy policy frameworks and climate objectives and further misalignment between the plans, policies, and processes between all three levels of government and Indigenous communities. In many cases, the pace of change is contributing to an absence of meaningful public engagement and strong intergovernmental cooperation which is contributing to unclear and unstable policy environments that lack public support.

Local Implementation Capacity - local governments have been handed the responsibility of facilitating the implementation of climate mitigation and adaptation solutions, retrofitting building stock, enabling low-emission transportation systems, addressing energy poverty, and more but most lack the capacity to deliver on or outsource the implementation of these outcomes. Arming local enablers with the capacity (time, skills, and resources related to governance, partnership, finance, data, policy, and other aspects) is critical to achieving our net-zero future.

## **Q2. What do you see as the barriers or challenges to reducing emissions in these sectors? Do you have suggestions on how to overcome these barriers?**

One of the biggest barriers limiting our approach and thinking by sector. In addition to the specific actions that need to be taken by individual sectors to achieve emission reductions, there is a significant need to think and act innovatively with a whole energy system approach or an Energy Systems Integration (ESI) approach.

ESI is the process of coordinating the operation and planning of energy systems across multiple pathways and/or geographical scales to deliver reliable, cost-effective energy services with minimal impact on the environment (O'Malley et al., 2016).

Dr. Madeleine McPherson (University of Victoria) highlights the importance of ESI approaches in her report written for the Canadian Institute of Climate Choices entitled "Enabling broader decarbonization through Energy System Integration". In the report, Dr. McPherson highlights that our decarbonization challenges and their solutions can be categorized by those that pertain to a single sector and those that

pertain to multiple sectors or stakeholders. Solutions that span multiple sectors require different government approaches to those that only relate to a single sector.

Therefore the solutions space needs to not only consider options within each sector but also those that integrate across sectors and scales. If we continue to examine solutions within a single scale or sector only without understanding the effects from or on other scales or sectors we will be making ineffective decisions that are based on an incomplete picture.

To overcome this barrier we need to delve into building our understanding of both the possibilities and challenges of electrification and ESI. Where appropriate we need to look at offering holistic information, pan-sector communication, redefined governance structures, and coordinated implementation.

### **Q3. What broader economic, technological, or social challenges and opportunities do you foresee resulting from efforts to reduce emissions in these sectors? For example, opportunities associated with economic diversification across sectors. Do you have suggestions on how to address these challenges and opportunities?**

As per Q2 - without an understanding and appreciation of decarbonization challenges and their solutions that pertain to multiple sectors or stakeholders we will be making inefficient decisions that are based on an incomplete picture.

## **Section 2: Contributing to Net-Zero by 2050**

- The Canadian Net-Zero Emissions Accountability Act specifies that the Emissions Reduction Plan for 2030 must also describe how the key measures and strategies will contribute to Canada achieving net-zero emissions by 2050.
- Net-zero emissions means either emitting no greenhouse gases or offsetting emissions that can't be fully reduced.
- Looking at measures to get to net-zero by 2050 is different from reducing emissions for 2030. For example, for 2050 many technologies will be further along in their development and deployment stages (i.e. hydrogen and carbon capture, utilization and storage). Zero-emission vehicles will be cheaper and more widely available, coal-fired electricity will be phased-out, and the carbon price will have increased.
- Our ability to take advantage of opportunities post-2030 will depend on our understanding of these solutions and positioning Canada for them now (e.g. electric vehicle battery manufacturing in Canada).

- Note that the purpose of this engagement exercise is to focus on emissions reductions or climate change mitigation. Canada is simultaneously committed to advancing ambitious action on climate change adaptation, and is in the process of developing a National Adaptation Strategy to establish a shared vision for climate resilience in Canada; this process will occur separately. To learn more about Canada's National Adaptation Strategy, please visit [www.canada.ca/national-adaptation-strategy](http://www.canada.ca/national-adaptation-strategy). Public participation opportunities will be posted on the website.

#### **Q4. Looking beyond 2030, what enabling measures, strategies or technological pathways do you think the Government of Canada should put in place now to ensure that Canada is on track to net-zero emissions by 2050?**

The Government of Canada needs to develop a robust understanding of energy transition trade-offs and clearly articulate them to decision-makers across society. No matter what the solution, there will be trade-offs - increased costs, decreased reliability, social equity issues, etc. - and unintended consequences but this is not well understood or acknowledged. As a society, we need to build a robust understanding of what these trade-offs are, discuss them and determine what is acceptable and what is not acceptable locally, regionally, provincially/territorially and nationally. With this information, governments, businesses and individuals can make educated decisions on the actions that they are taking and the trade-offs they are accepting.

The Government of Canada also needs to start to think about the enabling measures, strategies and technological pathways from a bottom-up perspective where deployment will occur. Top-down modelling is useful in painting a high-level roadmap but ignores the uniqueness of our communities, the fact that the impacts will not be born equally by our communities, and that what is acceptable in one jurisdiction may not be readily acceptable in another. The collective of local action needs to lead us to net-zero for net-zero to be sustainable.

Strategically, the Government of Canada needs to target its enabling measures in the places where the impacts of the energy transition are going to be greatest. Spending on measures to incentivize the actions we want Canadian's to make should be prioritized to those that will be most challenged in making the transition, these funds should also be matched with policy and legislation that makes it difficult for those that won't be significantly impacted to do otherwise. The simplest example is personal transportation - incentives should remain in place for low-income Canadians only to make the shift into a low emission vehicle. For the balance of society, the option to buy an ICE-only vehicle should be prohibitively difficult if not impossible, with decreasing levels of difficulty for intermediary solutions such as hybrid and alternative (fuel cell for instance) vehicles so consumers still have a choice. These types of aligned incentives and policies/legislation need to be reflected across all sectors that we need to shift to net-zero.

**Q5. What broader economic, technological, or social issues to you foresee as a result of the transition to a net-zero economy in Canada? Do you have suggestions on how to address these issues?**

As per Q4, there will be economic, technological and social issues across the board whether that is increased costs resulting in higher energy poverty in Canada, increased vulnerability from decreased energy reliability through extreme weather, to communities that have erosion of their economic base from industries that can't transition well to a net-zero economy.

Addressing these issues first requires us to develop an understanding of where these impacts are most likely to occur - to which Canadian's, to which businesses, and to which communities - and then the Government of Canada can more accurately direct its spending to support these groups and communities enabling their transition to our new economy. Currently, blanket spending offers preferential treatment to privileged Canadian's and leaves others behind.

I'll use energy poverty and reference Efficiency Canada's National Energy Poverty Strategy to illustrate an example of how the Government can address these issues.

Begin by targeting the least energy-efficient and lowest-income households using two important metrics from the United Kingdom. The first is the 2015 Low Income High Cost (LIHC) indicator, which “identifies households that are pushed into poverty as a result of high fuel costs and low incomes,” which in turn helps policy-makers “prioritize and target energy efficiency upgrades towards households that require the most significant reductions in fuel bills to move out of energy poverty.” This indicator can bring together some of society’s most vulnerable people—those living in inefficient homes, young people, people with disabilities, and older adults.

The second metric, introduced just last year, is the Low Income Low Energy Efficiency (LILEE) indicator, “which identifies energy poor households living in the most inefficient homes in the country.”

The next insight, courtesy of the European Union’s recent launch of its Social Climate Fund, is that dedicated low-income funding and design can be used to mobilize more action at the provincial level.

Set up to support vulnerable Europeans as the EU moves to cut greenhouse gas emissions 55% by 2030, the Social Climate Fund “dedicates a minimum of 25% of revenues (roughly C\$103 billion between 2025 and 2032) from carbon emissions trading into supporting a ‘socially fair transition’. It also requires EU member states to “match the funding allocation and implement measures and investments to principally benefit vulnerable households, micro-enterprises, or transport users.”

So far, the approach has mobilized the equivalent of C\$206 billion for a socially fair transition.

## **Section 3: Ongoing Engagement on Canada's Emissions Reduction Plans**

The Government of Canada will continue to engage with interested persons for future emissions reduction plans for 2035, 2040, 2045, and 2050.

We welcome your views on how you would like to be engaged moving forward.

### **Q6. How would you like to be engaged on Canada's climate plans moving forward? How often should this engagement occur, and what method or format would be preferable?**

Offering opportunities like this survey to solicit input is very useful and welcomed. I do, however, encourage the Government of Canada to consider better ways to solicit input. I work in this space. I am active on social media. I follow 5 different departments and yet I found out about this via word of mouth. I have also heard from others that were surprised they weren't aware of this engagement opportunity.

As a leader of a non-profit working in this space, I would like to see the Government of Canada specifically reach out to the environment and energy-focused non-profits to solicit input. We are on the ground working in Communities and therefore have a unique perspective to bring to the table.

Generally speaking, I think engagement should occur a few times a year but more specifically it should be used to inform Government decisions, so in a timely manner to be useful for those decisions. Also, noticing that I am at 36% complete and have already spent an hour of my time on this input, having more frequent engagement that can be completed more quickly would be welcomed.