A Thriving Future

Harnessing the Emissions Reduction Plan for socioeconomic progress in Canada

IISD REPORT

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Summary

- Canada's Emissions Reduction Plan (ERP) is an ambitious roadmap to lowering emissions. Climate change disproportionately impacts the most vulnerable so reducing emissions will improve socioeconomic outcomes in the long run.
- Despite the long-term benefits of reducing emissions, specific climate policies do not necessarily translate into positive social and economic impacts—especially for equity-deserving groups.
- We analyzed a sample of 67 out of the ERP's 129 policies and found that measure have vastly different impacts; while many may help reduce poverty and inequality as well as carbon emissions, many others have the potential to exacerbate poverty and inequality if they're implemented without social and economic safeguards.
- Updates to the ERP are an opportunity to set out conditions for funding to ensure that an even greater portion of public investments in decarbonization lead to positive social outcomes.
- We recommend that the government integrate a poverty and inequality analysis into future climate policy development; increase support for measures that can maximize positive social impact and potentially mitigate negative impacts; and ensure that climate policy includes social safeguards.

1.0 Introduction

The impact of the COVID-19 pandemic and geopolitical conflicts have exacerbated inequality across Canada, possibly in the long term (Statistics Canada, 2022; Our World In Data 2023). Recent analyses of financial vulnerability note that Canadians with the lowest incomes have been disproportionally affected by inflationary pressures (Government of Canada, 2023). Simultaneously, the crises brought about by climate change are already disrupting Canadian lives and economic sectors (Warren & Lulham 2021) and require a massive transformation in how Canadians live and govern their economy. Rising greenhouse gas emissions and the resulting increase in global temperatures will increase inequality and poverty over the long term, disproportionately impacting the most vulnerable.

Reducing emissions has unquestionable benefits for society, human health, and the economy—in the long term. Yet progressive energy and climate policy measures do not necessarily translate into effective social policy, though both are essential to an equitable transition. In 2021, the International Institute for Sustainable Development's (IISD's) analysis of the impacts of

COVID-19 recovery energy policies around the globe, based on the Energy Policy Tracker[1] (EPT), concluded that only 13% of the policies examined had both positive social and environmental impacts (Dufour et al., 2022).

How is Canada's climate policy meeting both social and environmental goals? Canada's 2030 Emissions Reductions Plan (ERP) outlines an "ambitious and achievable" sector-by-sector roadmap to decarbonization, reaching emissions reductions of 40% below 2005 levels by 2030 and net-zero emissions by 2050 (Environment and Climate Change Canada 2022). This plan and subsequent investments in a low-carbon economy also represent an unparalleled opportunity: implemented well, the broader sustainability it brings to Canada can include improved social outcomes.

Yet the transition to a low-carbon economy has social impacts that must not be overlooked. Accounting for the impacts of the ERP's policies on poverty and inequality can decrease the risk that these policies impose a higher burden on the more vulnerable, whether through higher energy costs or unequal access to environmental goods and services. Understanding how the first iteration of the ERP impacts social outcomes is the first step to reducing this risk. The government has already implemented a gender analysis lens to the ERP, and further exploration of how to incorporate social analysis can strengthen future policy development.

This brief assesses a sample of the policies presented in the ERP for their impacts on poverty and inequality. The purpose is to start a conversation about the ways in which climate policy in Canada can impact economic poverty and inequality. It does not purport to be a complete analysis of the ERP and its measures, and it is time-limited to those measures included in the ERP and Budget 2022. Moreover, it focuses on federal action through the ERP rather than the complex interactions between the federal government and provinces.

Box 1. Defining "poverty" and inequality"

There is no single definition for poverty or inequality, either internationally or in a Canadian context. Many quantitative metrics exist to measure them: the Gini coefficient or the Palma ratio are used to gauge inequality, while international poverty lines can provide some indication of a country's poverty standing (Organisation for Economic Co-operation and Development, 2023).

In this brief, as in the original EPT project, we consider poverty and inequality in qualitative terms (Dufour et al., 2022). When discussing poverty, we primarily consider the *economic* effects on the lower end of the income distribution. We focus on *income inequality* in Canada, considering the gap between higher- and lower-income groups in the country. Depending on circumstances, we also consider the multidimensional ways that poverty can affect people's lives—whether through job losses, food insecurity, or access to education or health care.

[1] https://www.energypolicytracker.org/

The measures we analyze represent a significant financial investment on the part of the government and will be implemented or built on for some time to come. Our analysis concludes that there remain significant opportunities to strengthen the ERP from a socio-economic perspective. At the end of the brief, we make recommendations for future updates of the ERP to better integrate social impacts. In doing so, Canadian climate policy can evolve to become more inclusive and equitable while achieving the rapid decarbonization needed to meet net-zero goals.

Section 2 outlines the methodology used for the analysis. Section 3 provides the overall findings of the expected impacts of the ERP on poverty and inequality. Section 4 discusses how these impacts break down by sector, as well as some commentary on those measures that could not be analyzed but represent significant political or financial investments. The final sections (Sections 5 and 6) provide our conclusions, as well as policy recommendations.

2.0 Methodology

This brief makes recommendations based on a sample of 67 out of the 129 emissions reduction measures described in Canada's ERP and Budget 2022. We based our methodology on the one used by IISD's EPT and its Inequality and Poverty Dashboard ("the Dashboard"),[2] which analyzed the social outcomes of energy policies in 30 countries and outlined complementary policies that could influence the impacts of policies on poverty or inequality. A full description of our methodology appears in Appendix A.

Scope of Analysis

To define our scope, we focused on those measures within the ERP that were clearly compatible with already-established categories in the Dashboard so that analysis of measures did not require extensive literature reviews. To this initial set of measures, we added other measures that were given pride of place in government communications or otherwise considered essential to the ERP, based on our contextual knowledge.

Because this analysis is preliminary, it does not consider all government action on climate change. Provincial governments are responsible for several programs across sectors, including housing, transportation, and resource extraction; this limits action that can be taken within federal jurisdiction. We restrict ourselves to federal action that is noted under the ERP. We also limit ourselves to those measures described in the 2022 ERP document and the 2022 federal budget. Our analysis does not include measures developed or announced by the federal government since then, with some exceptions for clarification (see Appendix A), out of the need for clear boundaries in our scope. Nor does it account for previously announced policies not mentioned in the ERP that, nonetheless, might have positive climate impacts, such as investments in transit or green infrastructure via the Investing in Canada plan. Given that the analysis considered the potential rather than the actual impacts, we also considered measures that had not yet been enacted but were announced in the ERP.

Finally, we did not distinguish between new measures announced in the ERP and previous commitments that were restated, choosing to consider the document as a single unit of climate policy.

Time Scale of Analysis

Poverty and inequality impacts can vary over the short, medium, and long term. For example, policies encourage clean energy may initially economically disadvantage lower-income households by raising energy prices, but can decrease inequality in the long term by reducing the health impacts and economic lock-in of high-carbon and high-pollution scenarios (Coady, 2015). It is

[2] For further information, please see Dufour et al. (2022).

outside the scope of our brief to analyze each measure of the ERP on a different time scale, but we note potential effects at different time scales when we consider it relevant.

Categorizing and Assessing Measures

To create a sample for analysis, we isolated the measures in the ERP that already fit into the Dashboard's 32 established energy policy categories. This resulted in 67 out of 129 measures being eligible for assessment. Then, we assigned each measure poverty and inequality impacts determined by the literature.[3] We considered any complementary policies and indicators appropriate to Canada that could alter poverty or inequality impacts and made appropriate amendments to the ratings. Finally, we analyzed these impacts along with other measure characteristics, such as funding levels, using crosstabulation analysis. For measures that could not be analyzed but warranted comment due to their political importance or the significant funding attached to them (such as the Net Zero Accelerator initiative), we provide general insights based on our crosstabulations analysis.

We disaggregated the measures according to the sector given to them by the ERP, namely Buildings; Economy-Wide; Electricity; Heavy Industry; Nature-Based; Oil & Gas; and Transportation. We merged several sectors (Sustainable Jobs and Communities; Sustainable Finance; and Clean Technology and Climate Innovation) into a single "Enabling" sector.

A full list of the measures considered, as well as those that were not analyzed, appears in Appendix B.

[3] These included the following:

- unclear (meaning that there was insufficient literature to make an assessment of poverty and inequality impacts),
- neutral (meaning that the literature examined showed the measure to have no discernible impact on poverty or inequality),
- decreasing, or
- increasing.

It should be noted that, in all cases, these measures aim to reduce emissions and therefore the worst impacts of climate change, which is a clear social benefit. For more details on the methodology used in this analysis, see Appendix A.

Box 2. Indigenous-led measures

Of note in the ERP are a number of measures led by or aimed at increasing the involvement of Indigenous groups, such as Indigenous Protected and Conserved Areas. Indigenous-led emissions reduction measures are an essential and powerful tool from the perspective of conservation, emissions reduction, and reconciliation. This brief is not able to provide an appropriate analysis for these measures and does not consider the ERP from the perspective of reconciliation or Indigenous rights. An appropriate starting point for readers lies in work done by Indigenous-led organizations, such as Indigenous Climate Action and national Indigenous organizations (Indigenous Climate Action 2021; Indigenous Clean Energy 2020; Assembly of First Nations 2019; Inuit Tapiriit Kanatami 2019).

Funding that is explicitly focused on enabling Indigenous Peoples to transition toward clean electricity and conservation programs—such as the Indigenous Climate Leadership Agenda and the Low Carbon Economy Fund Indigenous Leadership Fund—can help to reduce inequality, especially for remote and lower-income communities.

National Indigenous organizations have called for climate policy to promote the full and meaningful participation of Indigenous Peoples in climate action, including carbon pricing (Assembly of First Nations, 2019). They have also underlined that climate action must be predicated on Indigenous Peoples' right to self-determination (Inuit Tapiriit Kanatami, 2019).

However, many Indigenous groups have questioned the actual impacts of Indigenous focus for many government plans, noting that "Indigenous Peoples and our rights, knowledge, and climate leadership were mentioned again and again in both plans, yet we were structurally excluded from the decision-making tables where these plans were made" (Indigenous Climate Action, 2021, p. 6). We will note, as well, Indigenous Climate Action's call to policy-makers to "step aside and make space and then stand up and actively support Indigenous communities who are cultivating, reinvigorating, and practicing our own community-based protocols" (2022).

3.0 The ERP, Poverty, and Inequality: An overview

This section presents an overview of the key trends uncovered about the potential poverty and inequality impacts of the ERP measures in the sample we selected. Two main trends emerged across all sectors:

1. Emissions reduction measures do not necessarily equate to direct positive social impacts.
2. Significant funding is tied to measures that could lead to potentially negative social and economic impacts if not implemented with these dimensions in mind.

Emissions Reduction Measures Don't Necessarily Equate to Direct Positive Social Impacts

It goes without saying that reducing emissions reductions benefits society by limiting the impacts of climate change, which has massive social and economic costs. One of the ERP's stated motivations is that "taking action to decarbonize the economy and fight climate change provides an opportunity to address these inequities" (Environment and Climate Change Canada, 2022, p. 11). However, if individual policy measures do not take systemic societal problems into account, they can risk reproducing and exacerbating the conditions that drive poverty and inequality.

Our analysis shows that, if implemented well, 44% of the ERP measures in our sample may reduce poverty. However, only 9% of measures may reduce inequality. This speaks to the pervasive nature of systemic inequality across sectors in Canada—structural issues that persist regardless of the drive to reduce emissions and that may not have been taken into account when formulating an emissions-focused policy.

As a result, some measures have the potential to actually *increase* poverty (4% of measures) or inequality (19% of measures) over time. Measures like the Canada Green Homes Grant, for example, have an initial poverty-reduction impact by driving worker training for retrofits. However, accessing the program still requires one to be a homeowner, which excludes lower-income Canadians. In the longer term, the CGHG may raise housing prices by increasing home values and does not necessarily protect tenants from rent hikes over retrofits, thereby raising inequality in the long term. Structural problems in housing are already affecting equity in Canada; while the CGHG may reduce emissions, it will continue to reproduce existing structural inequalities in housing policy unless complementary policies can curb these negative impacts.

Overall, 10% of measures were considered to have a neutral impact on poverty, while 16% would have a neutral impact on inequality. Here, a "neutral" impact should be considered in positive terms: it means that, if implemented, the measures we analyzed would reduce Canada's emissions. Consequently, they will have an overall positive impact on poverty and inequality by helping to

attenuate the consequences of climate change. These social impacts are abstract, however, and difficult to measure.

Significantly, several measures we analyzed impacted poverty and inequality in different directions, decreasing one set of impacts while increasing the other over time. Some policies may decrease poverty while simultaneously benefiting higher-income households. Such is the case of the Zero Emission Vehicle Infrastructure Program, which can help create jobs in the electric vehicle (EV) industry to develop charging infrastructure but increase inequality by benefiting only EV owners in the short term (Hardman et al., 2018).

All these observations drive home the point that emissions reduction measures do not in and of themselves guarantee social safeguards for the Canadian economy. To ensure that measures in the ERP can help reduce poverty and inequality as well as reduce emissions, special attention must be paid to including safeguards or complementary policies that will counter negative economic impacts. We discuss these further in Section 3.2.

Table 1. Potential impacts on poverty and inequality of ERP measures

Impact	**Poverty** (% of sampled measures)	**Inequality** (% of sampled measures)
Increasing	4%	19%
Decreasing	44%	9%
Neutral	10%	15%
Unclear	12%	28%
No analysis possible	28%	28%

Without Appropriate Safeguards, Significant Funding May Be Tied to Measures That Could Potentially Exacerbate Social Risks

While several of the measures in our sample are regulatory or research commitments, others are financial commitments; the measures in our sample commit CAD 150 billion of public funding to reducing emissions.

Breaking down measures by their potential impact on poverty and inequality shows that, without additional social safeguards, the current ERP commits significant funding to measures that could exacerbate systemic inequality in the long term. No measures that commit federal funding are expected to increase poverty. However, CAD 10 billion of funding is tied to measures that could increase inequality.

Table 2. Funding associated with ERP and potential impacts on poverty and inequality, CAD million

	Funding committed by sampled measures	
Impact	**Poverty**	**Inequality**
Increasing	0	10,344.9
Decreasing	52,121.6	24,776.4
Neutral	4,291.9	18,822
Unclear	1,948.4	4,418.6
Impact unknown (no analysis possible)		89,737.4

Without implementing complementary social safeguards, measures whose impacts may increase inequality may slow down other efforts to close the gap between lower- and higher-income households in Canada (Employment and Social Development Canada, 2016). By integrating safeguards—for example, by ensuring that zero-emissions vehicle (ZEV) funding is capped to a certain level of income—future updates of ERP measures gain economic efficiency by helping to reduce the social costs of poverty and inequality on Canadian social infrastructure. We explore these safeguards by sector in the following section.

Equity *and the* Emissions Reductions Plan

WIN-WIN MEASURES

MAY REDUCE POVERTY

44% of measures

# of measures per sector
- Buildings
- Electricity
- Oil & gas
- Economy wide

MAY REDUCE INEQUALITY

9% of measures

# of measures per sector
- Buildings
- Electricity

Measures like the **Canada Green Buildings Strategy** can create jobs while making low-carbon housing available to lower-income Canadians. They need scaled-up support.

MEASURES TO IMPROVE

MAY INCREASE POVERTY

4% of measures

# of measures per sector
- Transportation

MAY INCREASE INEQUALITY

19% of measures

# of measures per sector
- Buildings
- Transportation
- Electricity
- Economy wide

Measures like **ZEV mandates** would benefit from complementary measures, like **promoting public transportation and charging infrastructure**, to make sure that these types of emissions reductions also lead to equitable outcomes.

MEASURES WITH UNCLEAR IMPACTS

ON POVERTY

40% of measures

# of measures per sector
- Electricity
- Economy wide
- Nature-based

ON INEQUALITY

57% of measures

# of measures per sector
- Electricity
- Economy wide
- Oil & gas

Measures like the **Net Zero Accelerator** need social safeguards that make government support conditional on ensuring workers' rights, including equity-deserving populations in design, and targeting low-income groups.

NEUTRAL MEASURES

NO IMPACT ON POVERTY

12% of measures

# of measures per sector
- Transportation
- Economy wide
- Electricity

NO IMPACT ON INEQUALITY

16% of measures

# of measures per sector
- Transportation
- Economy wide
- Electricity

Measures with neutral equity impacts, like the **Clean Fuel Regulations**, should be complemented with measures that increase equity outcomes in Canada.

4.0 Poverty and Inequality in Emissions Reductions: A sectoral approach

Analyzing individual sectors reveals that policies that protect workers, are implemented over longer time spans, and consult vulnerable populations can help reduce both poverty and inequality.

Economy-Wide Measures: Pricing carbon pollution

Canada's approach to carbon prices (namely, its federal backstop) largely avoids the pitfalls in poverty impacts that could be incurred by such schemes. Taken in the abstract, carbon pricing can increase energy costs and, indirectly, the costs of other commodities (Klenert et al., 2018). In Canada's case, however, revenues are redistributed to households through Climate Action Incentive payments, and analysis shows that most households will receive more in rebates than they will pay (Government of Canada, 2022). Recycling revenues from the carbon price into green investments and consumer incentives, as in the case of the Canadian system, tends to mitigate negative social outcomes (Klenert & Mattauch, 2019; World Bank, 2019).

Some equity issues remain, however. While the government has made efforts to reduce the burden of carbon pricing on equity-deserving groups, Indigenous Peoples remain disproportionately affected by these burdens. They face administrative delays in recycling revenues, as well as low rates of tax filing, which is a prerequisite for accessing the Climate Action Incentive payment (Auditor General of Canada, 2022). The Auditor General has recommended that Environment and Climate Change Canada should assess the burden of carbon pricing on these groups and work with provinces to lessen that burden, as well as report publicly on measures implemented to mitigate it (Auditor General of Canada, 2022).

Multi-Sectoral and Enabling Measures: Key principles for equity

Although measures that are multi-sectoral or enabling could not be analyzed according to the Dashboard methodology, they represent a significant amount of funding that can enable programs across sectors, and therefore they deserve close attention. We provide general commentary on the kinds of complementary measures or conditions that could be included in policy to ensure that broad programs have the maximum positive socio-economic effect.

Cross-Sectoral Funding Mechanisms are an Opportunity For Stronger Social Safeguards

Almost a third (29%) of the measures included in our sample could not be analyzed because of their cross-sectoral nature, and they therefore have unknown social impacts. They represent almost half of the funding identified in our sample—CAD 89 billion of the ERP's CAD 150 billion (see Table 1).[4] This means that these measures commit significant funding to projects that might potentially have negative social impacts.

Cross-sectoral measures include the following:

- Funding mechanisms such as the Canada Growth Fund, the Canada Infrastructure Bank, the Net Zero Accelerator Initiative, and the Natural Infrastructure Fund;
- Ambitious and far-reaching conservation commitments, such as conserving 30% of Canada's lands and oceans by 2030 and 25% by 2025 and planting 2 billion trees;
- Legislation that could be economically transformative, such as Sustainable Jobs legislation.

The criteria for the types of projects supported are not fully transparent. Moreover, it is not possible to comment on internal criteria from government departments that are not publicly available. Our research shows that some of these mechanisms assign funding to certain categories—for example, the Net Zero Accelerator focuses on decarbonization of large emitters, industrial transformation, and clean technology and batteries—but give no specific equity-related funding conditions.

Ensuring that the significant funding committed to these measures does not cause negative socio-economic impacts will require social safeguard mechanisms, such as making government support conditional on worker protections (including retraining), incentives to target low-income groups, and including equity-deserving stakeholders in project design and implementation. In this way, future iterations of the ERP can ensure that large funding bodies contribute to positive outcomes for both the environment and society. Installing social safeguards as funding conditions for low-carbon projects would, at minimum, ensure that initiatives have a beneficial or net-neutral outcome from a social standpoint.

Just Transition Must Be Enforceable and Equitable

Just transition principles inherently help advance equity, and integrating them across all ERP measures will be essential to achieving a successful and just transition from fossil fuels toward a renewable economy (Hulse et al., 2023).

The federal government has repeatedly committed to enacting policies consistent with just transition and has made progress by tabling the Sustainable Jobs Act and the Interim Sustainable Jobs Plan, which include strong equity principles (IISD, 2023). The Canadian Labour Congress

[4] Further funding is likely to be introduced following additional commitments and legislation.

lauded the government's "worker-centred approach" to jobs in a net-zero economy, highlighting the synergy between job creation and decarbonization (Canadian Labour Congress, 2023).

The government's Task Force for Just Transition for Canadian Coal Power Workers and Communities offers several lessons on how to mitigate potential impacts on poverty and inequality. Despite a clear phase-out date and the inclusion of a broad range of stakeholders in its consultations, the Task Force was hamstrung due to barriers in accessing information, a lack of collaboration between actors, and a lack of legal authority for the Task Force to negotiate how funding was distributed and implemented (Brown & Jeyakumar, 2022). These failures must be avoided in any future just transition initiatives in Canada.

Transportation: ZEV support must be balanced with public transit support and infrastructure

Number of measures examined:	11 out of 67 (16%)
Examples of major policies in the ERP:	Light-duty vehicle (LDV) ZEV sales mandate Strategy to reduce emissions from medium-and heavy-duty vehicles Incentives for Zero-Emission Vehicles (iZEV) purchase incentive program

Transportation accounts for a quarter of emissions in Canada, making it an essential sector for decarbonization. Equity considerations for decarbonizing the sector in Canada revolve around ensuring that policy choices around land use and transportation can support the different circumstances of rural and urban populations, especially lower-income populations. Even in cities, 1 million urban Canadians are at risk of "transportation poverty" because of a lack of reliable public transportation (University of Toronto, 2019). There are clear opportunities to improve regional, urban, and intercity public transportation, which has co-benefits for public health (Canadian Association of Physicians for the Environment, 2022). Literature on the subject is clear: transitioning Canada's vehicle fleet to electric vehicles is only a partial solution to both decarbonization and public health problems (Green Budget Coalition, 2022; Milovanoff et al., 2020).

The ERP puts LDV ZEVs in pride of place, highlighting both the government's targets for 100% LDV ZEV sales by 2035 and its federal ZEV purchase incentives. It also commits significant funding to extend the iZEV purchase incentive program and to establish a purchase incentive program for medium- and heavy-duty vehicles (MHDVs).

Our analysis finds that ZEV sales mandates and incentives have the potential to increase poverty and inequality, respectively. The market signal that such subsidies provide can be helpful to manufacturers and consumers for ZEV uptake and emissions reductions (Sykes & Axsen, 2017). However, the subsidy most benefits those higher-income individuals who would have bought a ZEV in the first place; it does not provide enough of an incentive for purchase for lower-income consumers, thereby increasing inequality in the long run. Moreover, critics have expressed concern that auto firms can subsequently use their market power to raise prices in response, capturing the value of the subsidy and keeping prices high, which can increase poverty in the short and medium term (Wallace & Brazeau, 2022).

Clear counterweights exist to alleviate poverty and inequality impacts in transportation, some of which can be found in the ERP. The ERP includes a CAD 14.9 billion commitment to public transit funding (Environment and Climate Change Canada, 2022). While this is a useful beginning, there are complementary measures that, if implemented, would strengthen socio-economic goals:

- Additional purchase incentives, credit modification, and addressing unique infrastructure needs in under-resourced rural communities to balance out possible inequalities due to rural car dependencies (Tremblay-Racicot et al., 2023).
- Public transportation could take a central role in transportation strategy, including ensuring operating funding for urban public transit systems, developing and maintaining inter-regional transportation, and optimizing the use of existing fleet capacity to make service more equitable (Wallace, 2022).
- The MHDV sales mandate should include capacity-building programs and labour market programs, building fleet awareness and understanding for managers while addressing the skills gap for workers in maintenance, repair, and infrastructure (Green Budget Coalition, 2022).

Other opportunities to improve equity outcomes in decarbonizing transportation include limiting rebates to specific income brackets to improve equity in distribution (Dufour et al., 2022), furthering financing for the adoption of e-bikes, and making used EVs eligible for the iZEV subsidy program.

Oil and Gas: Capping emissions clearly decreases poverty

Number of measures examined:	5 out of 67 (7%)
Examples of major policies in the ERP:	Oil and gas emissions cap Oil and gas methane regulations Emissions reductions fund

Reducing emissions in the oil and gas sector can have an unclear impact on inequality but a high potential to decrease poverty. Our analysis finds that they are best complemented by measures that ensure protections and retraining for workers in the industry, as well as stringent assessment of emissions reductions.

Some of the most significant measures in the ERP, such as the oil and gas emissions cap, can be beneficial to workers in the sector and, therefore, help reduce inequality. Such measures have the potential to create well-paying jobs, as well as train workers in skills transferrable to the clean energy sector, which gives workers more stable, sustainable job prospects (Corkal & Beedell 2022; International Energy Agency, 2021). Moreover, the actual reduction of emissions from the oil and gas sector can help lessen inequality in the long term. Low-income and vulnerable communities, including Indigenous communities, are most exposed to pollution and climate impacts; reducing pollution from oil and gas extraction will lessen the health burdens in these communities (Buonocore et al., 2023; Hajat et al., 2015).

On the other hand, if financial support for the oil and gas industry leads to increased fossil fuel production overall, these pollution reduction effects will be marginal, and inequality will likely rise. Unmitigated impacts of climate change will exacerbate current inequalities, especially among lower-income populations; reducing fossil fuel emissions is key to reducing these economic impacts (International Monetary Fund, 2021). One sobering example in the ERP is the Emissions Reduction Fund, which—according to the Auditor General's Natural Resources Commissioner—failed to ensure that a company benefiting from the funding would have to account for a decrease in emissions, thereby making it possible that emissions could increase despite funding for reductions (Auditor General of Canada 2021).

Research makes clear that the decarbonization of the oil and gas sector is both doable and necessary (Gorski & McKenzie, 2022). Failing to decarbonize further increases the burden for other sectors, such as transportation, buildings, and electricity, which—as we detail here—may have more complex equity challenges to consider. In contrast, emissions reductions in the oil and gas sector have clear socio-economic and health benefits. Ensuring that the sector does its fair share can help reduce the overall social burden of decarbonization.

There remain significant opportunities for future updates of the ERP to close these potential loopholes. Some considerations might be to ensure that funding for emissions reductions is covered by oil and gas companies rather than public funds, thereby enforcing a "polluter pays" principle for the sector (Cameron et al., 2022) and tying any increased profits from resource extraction to increased wages for workers and training programs.

Nature-Focused Measures

Number of measures examined:	4 out of 67 (6%)
Examples of major policies in the ERP:	Natural Infrastructure Fund 2 Billion Trees Program Indigenous Protected and Conserved Areas

The conservation and environmental non-profit sector in Canada has historically suffered from underrepresentation by people of colour and Indigenous Peoples; this has made the work in this sector less rich and effective as a consequence (Green Budget Coalition, 2022). More broadly, nature-based approaches must contend with a legacy of environmental racism, which has both excluded the democratic participation of equity-deserving groups and imposed a disproportionate impact of pollution and environmental toxins. The current federal model of program funding has come under criticism for not adequately advancing the nation-to-nation relationships required to further reconciliation and implement Indigenous rights, which are essential priorities alongside decarbonization (Green Budget Coalition, 2022).

The nature-based emissions reduction measures presented in the ERP include measures and targets such as conserving 30% of land by 2030, planting 2 billion trees, and the Natural Infrastructure Fund. While available literature does point out that many socio-economic benefits can come from protecting carbon-rich landscapes and ecosystems from deterioration (Drever et al., 2021), we are unable to comment on these measures' impacts on poverty and inequality in this brief. The scale of their implementation is massive and regionally specific and involves coordination between federal, provincial, and municipal governments. While the measures presented in the ERP demonstrate progress in conservation at the national level, providing an assessment of their poverty and inequality impacts would require a level of analysis that goes beyond the remit of this brief.

Many groups have made suggestions to help remedy the inequities inherent in current federal support for nature-based measures. The Nature-based Solutions Initiative has put forward key principles for nature-based solutions that could be implemented in Canada, including that nature-based solutions are not a substitute for rapid fossil fuel phase-out; that they should

be designed, implemented, and managed in partnership with Indigenous Peoples and local communities; and that they should support or enhance biodiversity (Seddon et al., 2021).

Securing long-term cultural, economic, and health benefits for communities and Indigenous Peoples requires long-term investments and permanent funding rather than time-bound programs. One starting point could be increased investment in the Youth Employment and Skills Strategy, which develops youth employment programs that ensure marginalized youth have support to start careers in the nature and conservation sector (Green Budget Coalition, 2022).

Electricity: Mitigating the "sticker shock" of renewables

Number of measures examined:	16 out of 67 (24%)
Examples of major policies in the ERP:	Clean Electricity Standard Off-Diesel Hub Small Modular Reactor Action Plan implementation

The federal government has set the stage for a transformation of the electricity sector by committing to a Clean Electricity Standard that achieves a 100% net-zero electricity system by 2035. Electrification is the key to decarbonizing sectors across Canada (Canadian Climate Institute, 2022). It is, therefore, crucial to ensure that policies that can help achieve a net-zero electricity system have positive social outcomes.

At present, the sector faces several equity challenges. Indigenous participation in clean energy has risen significantly in the past decade, but systematic infrastructure gaps and a lack of decision-making power hamper Indigenous reconciliation and leadership (David Suzuki Foundation, 2022). Preserving high-quality jobs for workers and providing retraining opportunities must be prioritized (Jeyakumar, 2022). Energy poverty is a growing concern, with over 20% of households in Canada experiencing high home energy cost burdens (Canadian Urban Sustainability Practitioners, 2019).

The diversity of electrical systems in Canada makes it difficult to generalize the impacts of federal funding and regulation; moreover, electricity governance, regulations, and policies are primarily the purview of provinces and territories. However, the federal government can help set priorities for electrification.

We focus on two types of measures championed federally: those involving renewable energy production and those considering electricity transmission. We do so in order to consider the different socio-economic impacts that each type of measure can have, as well as the different kinds of complementary policies needed to mitigate negative impacts.

Renewable Energy Production

Without appropriate safeguards, measures that support renewable energy production have unclear effects on poverty but can increase inequality if they pass costs down to consumers, thereby disproportionately affecting lower-income households (Markkanen & Anger-Kraavi, 2019). The government can help mitigate negative impacts by subsidizing renewable energy in such a way as to not increase the costs of electricity for consumers (Dufour et al., 2022).

Mitigating these potential impacts also requires a special focus on vulnerable populations. Civil society actors have recognized the need for support toward low-income energy efficiency retrofits at the federal level (Kantamneni & Haley, 2022). Focusing support on distributed solar programs in low-income neighbourhoods would cut utility bills and enhance equitable participation in renewables (Green Budget Coalition, 2021, 2022). Establishing a national energy poverty strategy focusing on low- and moderate-income households is thus a necessary first step to mitigating equity problems related to energy prices (David Suzuki Foundation, 2022).

Some negative impacts of supporting the production of renewable energy might be limited to the near future. Concerns about electricity prices will fade as the cost of renewables—especially solar and wind energy—continues to fall, especially as fossil fuel generation is subject to price volatility (Christensen & Dusyk 2022). Moreover, job creation from an expanding renewables sector can have significant positive impacts so long as policies ensure adequate worker retraining and transition from fossil fuel-producing sectors (Corkal & Beedell, 2022).

Transmission, Distribution, and Off-Grid Electrification

Measures that support transmission, distribution, and off-grid electrification (such as the Smart Grids Program, interprovincial transmission lines, and the Clean Electricity Regulations) have unclear effects on inequality but clearly tend to reduce poverty. Improving electricity supply alleviates poverty by benefiting health, income, education, and living standards (World Bank, 2017); these standards rise significantly when the programs cater specifically to remote or low-income communities (Federation of Canadian Municipalities, 2018).

Targeting rural and remote communities is an excellent opportunity to decrease inequality. Off-grid rural electrification, in collaboration with community energy initiatives, can increase community buy-in and help close the access gap between low- and high-income rural users (International Renewable Energy Agency & SELCO Foundation, 2022).

Our analysis yields recommendations for both electricity production and transmission. The government's 2023 Budget introduces a clean electricity investment tax credit for renewables production, electricity storage systems, and inter-provincial transmission. Importantly, the credit is conditional on labour requirements being met, including prevailing wage standards and training opportunities (Department of Finance, Government of Canada, 2023). These worker protections are essential to mitigating potential negative socio-economic impacts of rapid transitions toward a net-zero electricity grid.

Future ERP updates could include further community-focused measures, such as

- adding a stream to the NRCan Smart Renewables and Electrification Pathways program focusing on community-financed micro-grids, which would support partnerships between utilities, municipalities and community partners (Green Budget Coalition, 2022);
- developing a federal tax credit for personal investment in community-distributed generation projects to leverage community investment in renewable energy (Green Budget Coalition, 2022).

Building Retrofits Must Benefit Renters and Low-Income Communities

Number of measures examined:	12 out of 67 (17%)
Examples of major policies in the ERP:	Canada Green Buildings Strategy Canada Greener Homes Grant Program Deep Retrofit Accelerator Initiative

Canada's buildings sector makes up almost 20% of the country's total greenhouse gas emissions, making its decarbonization a strong priority (Lockhart, 2020). Another major equity concern is energy poverty: approximately 20% of households in Canada experience high home energy cost burdens (Canadian Urban Sustainability Practitioners, 2019). However, few programs in Canada specifically target energy-poor households, and those living in the least efficient homes often face additional challenges, such as navigating support systems (Kantamneni & Haley, 2022). Programs can also affect rural and urban situations differently. Decarbonization measures for housing must avoid putting additional burdens on equity-deserving populations and help remove barriers to energy efficiency for low-income Canadians.

Our analysis does find that the National Housing Strategy and the Deep Retrofit Accelerator Initiative both could reduce poverty as well as inequality. Supporting these policies over the long term—and expanding them to include as many equity-deserving populations as possible—will leverage social benefits as well as emissions reduction.

Measures that support energy efficiency or retrofits in housing (i.e., the Canada Green Buildings Strategy, the Greener Neighbourhoods Pilot Program, and the Canada Greener Homes Grant) tend to decrease poverty overall but increase inequality in the longer term. This is largely due to the fact that the measures do not yet show some of the complementary policies that would protect renters from rent increases, develop further training for the workforce, or consider energy poverty. Moreover, there is no federal program in the ERP focused on making energy efficiency accessible

to low-to-moderate-income Canadians. The Canada Greener Homes Grant initiative earmarks CAD 10 million to support new energy advisors, focusing on underrepresented groups and workers in rural, remote, and Northern Communities, but does not describe provisions to make funding accessible to renters or to train local workforces in retrofits.

The ongoing housing crisis across Canada requires systemic changes to improve both renter protections and housing policy (Kantamneni & Haley, 2022). Programs that don't explicitly address the needs of renters can result in significant rent increases, leading to "renovictions" (evictions justified on the basis of renovations performed) from landlords looking to increase the value of their property through retrofits—thereby exacerbating existing inequalities (Bouzarovski et al., 2022). Retrofit investments can increase job opportunities in construction and trades, especially if workers have access to training for energy efficiency and retrofitting (Chancel, 2020; Zachmann et al., 2018). However, while these programs tend to decrease energy costs for homeowners overall, they are largely accessible only to wealthier homeowners due to the high initial costs of retrofits (Efficiency Canada, 2022b; Zachmann et al., 2018).

The Rental Construction Financing Initiative and Deep Retrofit Accelerator Initiative both include provisions to limit rent increases, which should dampen the inequality impacts of these measures. But measures such as extending these limits to ensure that retrofitted homes would not place an undue burden on renters or offering turnkey and no-cost retrofits by leveraging and expanding existing provincial programs, would help reduce inequality (Frappé-Sénéclauze et al., 2017; Haley, 2022).

Other complementary policies could be put into place that would help decrease poverty and inequality impacts in private housing retrofits. These include:

- Addressing energy poverty directly by developing a national energy poverty strategy (Kantamneni & Haley, 2022). Doing so would include utility bill assistance programs, policies protecting homeowners from disconnection, and programs that fund and facilitate energy efficiency improvements to help permanently lower utility bills (Frappé-Sénéclauze 2020).
- Tying subsidies to training programs for lower-income workers to learn to conduct retrofits would help reduce poverty further while developing workforce capacities. This is especially relevant in Indigenous contexts, where retrofitted and energy-efficient housing infrastructure is urgently needed (Indigenous Clean Energy, 2021). Some critics have suggested that a low-income energy efficiency program could be well-positioned to recruit from traditionally marginalized communities (Efficiency Canada, 2022a).
- An expanded investment in energy-efficient Indigenous housing that includes engagement of Indigenous rights holders and parties to set out goals, developing alternative Indigenous energy efficiency funding models, and piloting financing options to select groups for First Nations, Métis, and Inuit communities as a proof of concept (Indigenous Clean Energy, 2021).

5.0 Policy Recommendations

This brief aims to begin a conversation about the ways in which federal climate policy can influence poverty and inequality. Given the number of measures we identified that risk having negative impacts on these socio-economic dimensions if not implemented carefully, our analysis raises the question of how policy choices can lead to both emissions reductions and positive social impacts.

Recommendations on how to improve future iterations of the ERP from a poverty and inequality perspective largely depend on the sector to which they apply. That said, the findings from this brief point to three overarching recommendations that government can adopt to optimize the social impacts of future iterations of the ERP:

Integrate Poverty and Inequality Analysis in Climate Policy Development and Implementation Frameworks

Our analysis raises some common issues and opportunities for government to fully integrate an analysis on the poverty and inequality impacts of future climate policy development. This can help to ensure measures at a minimum have a neutral impact or, optimally, actively reduce poverty and inequality. It may be possible to do the following:

1. **Consider including a poverty and inequality analysis in other government equity lenses when developing policy.** Through the gender-based analysis plus (GBA+) mandate, there is already a requirement to assess equity implications of the ERP. Future versions of the ERP, and of environmental policies more generally, could consider poverty and inequality impacts to better inform environmental policy. This could be integrated into either the GBA+ assessment or via the proposed climate lens. This is particularly relevant as the government attempts to enact just transition legislation, which will aim to ensure that transitioning to a low-carbon economy maintains good jobs for all and results in an overall reduction in poverty and inequality across the country. Reviewing future versions of the ERP, and of environmental policies more generally, for their potential social impacts would allow the creation of a framework that could inform better environmental policy.
2. **Ensure robust and transparent accountability measures for program management.** Under the *Net-Zero Emissions Accountability Act,* government is already obligated to report on progress on the implementation of the ERP. As funding for programs is disbursed and policies are implemented, it will be important to conduct timely and transparent monitoring and evaluation to assess not only climate impacts but also the social impacts of implemented measures.

Increase Support for Climate Policy Measures That Can Maximize Positive Social Impacts

Broadly, this requires two actions:

1. **Scale up support for "win-win" policy options.** Several policies benefit both environmental and social policy objectives: for example, the National Housing Strategy and the Deep Retrofit Accelerator Initiative are both likely to reduce poverty as well as inequality. Such policies can become a priority in future support.
2. **Balance measures that might have negative effects with those that reduce these effects.** It may not be possible to amend certain measures to counter their potential negative socio-economic effects. However, bolstering support for measures in the same sector that have positive impacts on poverty and inequality may help balance out some of the issues brought about by other measures. The ZEV mandate, for example, may cause an increase in inequality in the long term because its benefits are most accessible to high-income Canadians. Bolstering access to public transit—for example, by accelerating the rollout of federal transfers for public transportation to provinces or increasing funding to ensure rural and remote investment in transportation infrastructure—could ensure that long-term impacts of a broader transportation policy package lower inequality rather than raise it.

Ensure That Social Safeguards Are Present in Climate Policy and Across Climate-Related Funding Decisions in Government

Government must take a whole-of-government approach to social safeguards for environmental policy. With unprecedented fiscal commitments to climate change in the ERP and federal budgets in 2022 and 2023, allocations must be used as efficiently as possible, including to advance essential social objectives. An ERP update should ensure that social safeguards are present across measures, especially in cross-sectoral funding mechanisms and transformative legislation. These include

- making government support for private companies conditional on worker protections, including retraining;
- ensuring the presence of incentives to target low-income groups, thereby avoiding barriers to access; and
- ensuring that more vulnerable stakeholders are included in project design and implementation.

Specifically, government can ensure climate and social conditions are applied to government funding decisions, in line with 1.5 degree scenarios and just transition principles. This can be accomplished by

- implementing an integrated climate lens on budget proposals and assessing measures' social and environmental impacts using transparent methodologies and indicators;
- making access to funding for all programs conditional on recipients adopting 2030 and 2050 emissions reduction targets consistent with or exceeding Canada's targets, with interim targets and a plan to meet said targets in line with just transition objectives;
- ensuring large mechanisms, such as the Canada Infrastructure Bank, disburse funding based on clear climate and social criteria. Much like the labour requirements currently in place for several investment tax credits, this can include assessing whether funded projects will support net-zero-consistent job creation or reduce job loss, whether a project will integrate the United Nations Declaration on the Rights of Indigenous Peoples and free, prior, and informed consent, and whether equity-deserving and low-income groups will benefit (Green Budget Coalition, 2023).

6.0 Conclusions

Ultimately, this brief is the beginning of a conversation about how good environmental policy and good social policy can intersect. Our work raises many questions regarding how different contextual factors and policies can affect poverty and inequality impacts. How can environmental policy design be made more equitable to begin with? What indicators could we consider beyond economic poverty and inequality? Examining these impacts at the levels of provincial or international environmental policy could provide important perspectives on federal environmental policy.

This brief finds that, though many policies in Canada's ERP can reduce poverty and inequality, several others could, if risks are not mitigated, increase either or both of these outcomes regardless of their climate or environmental impacts. Sound environmental policy does not necessarily equate to sound social or economic policy. Policy-makers must take great care to build environmental policy that does not burden the economically vulnerable. We aim to present some opportunities to do so.

Our analysis brings forward several recommendations for future iterations of the ERP. While some policies bring both environmental and social benefits, several policies could have negative or uncertain impacts on poverty and inequality. These should be taken into account when making policies: regardless of how rapidly Canada's transition to a low-carbon economy needs to ramp up, policies that create poverty and inequality will hamper that transition in its most crucial decades. Conversely, certain policies that help lower poverty and inequality levels—such as social housing or public transportation—can be leveraged as a counterweight to those with potentially negative impacts. Implementing complementary policies that protect workers, make subsidies accessible to low-income communities, and consider the needs and views of the most vulnerable in their design can reduce poverty and inequality regardless of sector. Making these changes will require a whole-of-government approach that considers how environmental policy and socio-economic policy interact, allowing for better policy design overall.

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Appendix A. Methodology

Initial Methodology: The Energy Policy Tracker

This report's poverty and inequality analysis of the ERP builds on the work done by the Energy Policy Tracker (EPT)'s Poverty and Inequality Dashboard, which analyzed the poverty and inequality impacts of energy policies adopted in the first years of the COVID-19 pandemic amongst the 30 countries followed by the EPT.[5] These policies were grouped into 32 policy categories spanning the themes of Mobility, Buildings, Resources, or Multi-Sector.

The EPT team conducted literature reviews to determine the impact of each policy category on economic poverty and inequality at a global scale. Impact was qualitatively assessed as

- Unclear (meaning that there was insufficient literature to make an assessment of poverty and inequality impacts);
- Neutral (meaning that the literature examined showed the measure to have no discernible impact on poverty or inequality);
- Decreasing; or
- Increasing.

Furthermore, depending on the volume and consistency of the literature for that category, the team gave the impact a confidence level of "low," "medium," or "high."[6]

Based on the literature review, the team provided a list of indicators and complementary policies that may influence the direction or magnitude of the poverty and inequality impacts at a national level.

The Emissions Reduction Plan

Work to analyze Canada's 2022 Emissions Reductions Plan took place between June 2022 and March 2022. We analyzed the 2022 ERP and 2022 Budget for emissions-reducing measures. In later stages, we also consulted the 2022 Fall Economic Statement to see if clarifications were required on the measures announced in the 2022 ERP. We did not consider any new measures considered in the 2023 Budget or in the 2022 Fall Economic Statement.

Because this brief is an analysis of the government's Emissions Reductions Plan, we do not consider any climate-related plans that came before it or that may be enacted in parallel with the ERP.

[5] For more information, please consult (EPT website).

[6] For example, if the literature was extensive (high volume) and yielded similar conclusions (high consistency), then confidence would be high. However, if literature was not extensive (low volume) and results differed (low consistency), then confidence would be low.

Scoping and Categorization

In total, we identified 129 emissions-reducing measures. Before determining which would be analyzed, we conducted a scope and gap analysis to determine how many measures *could* be analyzed using the existing methodology developed by the EPT team.

Those measures that fit relevant EPT policy categories were first categorized and then re-examined in light of the indicators and complementary policies relevant to Canada that could affect the direction or magnitude of poverty and inequality impacts. These measures comprised the majority of our analysis. Measures which did not fit into EPT policy categories were excluded from our analysis.

We disaggregated the measures according to the sector given to them by the ERP, namely Buildings, Economy-Wide, Electricity, Heavy Industry, Nature-Based, Oil & Gas, and Transportation. We merged several sectors (Sustainable Jobs and Communities, Sustainable Finance, and Clean Technology and Climate Innovation) which contained only one sample measure into a more inclusive "Enabling" sector for the sake of concision.

We also included 20 measures that did not fit into EPT policy categories but were highlighted by government as significant parts of Canada's Emissions Reduction Plan, whether for their content or the amount of funding attributed to them (e.g., the Net Zero Accelerator). In this case, we provided a general commentary on the measures and how they might fit in a future poverty and inequality analysis.

Given that the analysis considered the potential impacts rather than the actual impacts, we also considered measures that had not yet been enacted but were announced in the ERP. This included measures and initiatives that have not yet been fully funded but for which funding is anticipated, such as the Atlantic Loop.

Several of the measures highlighted in the ERP are subsets of larger umbrella measures. (For example, the Off-Diesel Hub is a program with its own objectives, but it also delivers the Clean Energy for Rural and Remote Communities program as well as the Northern Responsible Energy Approach for Community Heat and Electricity program.) If the umbrella program had unique objectives separate from its subset measures, we considered each of these in turn (such as in the case of the Off-Diesel Hub). If the umbrella program mentioned in the ERP was only a framework for the delivery of measures mentioned separately, we only evaluated the separate measures (such as in the case of carbon pricing, which includes both current pricing measures as well as a commitment to explore other potential measures). A full list of measures can be found in Appendix B.

In total, we analyzed 67 measures from the ERP and Budget 2022.

We did not consider literature confidence levels in our analysis of ERP measures.

Analysis of Measures

Once measures were analyzed and categorized, we performed a crosstabulation analysis to understand major trends in measures, both as a whole and across sectors. These included, but were not limited to, how measures impacted poverty, how they impact inequality, how these impacts break down depending on the sectors into which the ERP is organized, and the amount of declared funding associated with measures and their impacts. They provided indicative insights into how the ERP is affecting economic poverty and inequality, as well as sectors or types of policies that could benefit from increased attention from policy-makers.

Limitations of the methodology

This analysis mainly focuses on the shorter-term impacts of measures on poverty and inequality. That said, medium- and long-term impacts are equally important from social and climate perspectives. Unfortunately, literature on such impacts is scarce and is therefore less reflected in our assessment.

The measures' assessment is not a systematic or granular assessment of each specific policy. Rather, we sought to give a general assessment of the impacts on poverty and inequality to provide a high-level overview.

Like the EPT's methodology, we refer to "poverty" and "inequality" through qualitative and generalized definitions, without reference to specific metrics. Nuanced notions of poverty and inequality exist in the literature and could inform future analyses but were not considered necessary for this one.

Appendix B. Measures Considered in the Analysis

Table B1. Measures considered in the analysis

Name of measure	ERP poverty	ERP inequality	**Value committed** (in CAD million)
Buildings			
Canada Green Buildings Strategy (CGBS): Overarching program	n/a (commentary)	n/a (commentary)	150.0
Canada Greener Homes Grant Program (CGHG)	decreasing	increasing	2,600.0
CGBS: Development and adoption of net-zero emission codes	n/a (commentary)	n/a (commentary)	n/a
CGBS: EnerGuide labelling of homes	decreasing	increasing	n/a
CGBS: Net Zero Building Code Acceleration Fund	decreasing	increasing	n/a
Deep Retrofit Accelerator Initiative	decreasing	decreasing	200.0
Energy Efficient Buildings Research, Development and Demonstration Program	decreasing	increasing	182.0
Green and Inclusive Community Buildings	decreasing	neutral	1,500.0
Greener Homes Loan Program	decreasing	increasing	4,400.0
Greener Neighbourhoods Pilot Program	decreasing	increasing	33.2
National Housing Strategy	decreasing	decreasing	24,200.0
Rental Construction Financing Initiative	decreasing	decreasing	n/a

Name of measure	ERP poverty	ERP inequality	Value committed (in CAD million)
Economy-wide			
Canada Growth Fund	n/a (commentary)	n/a (commentary)	15,000.0
Canadian Infrastructure Bank	n/a (commentary)	n/a (commentary)	35,000.0
Clean Fuel Regulations	neutral	neutral	n/a
Clean Fuels Fund	neutral	neutral	1,500.0
Federal Greenhouse Gas Offset Credit System	decreasing	unclear	n/a
Indigenous Climate Leadership Agenda	n/a (commentary)	n/a (commentary)	29.6
Low Carbon Economy Fund	n/a (commentary)	n/a (commentary)	22,000.0
Plan to reduce methane emissions	n/a (commentary)	n/a (commentary)	n/a
Price on carbon pollution: exploring other measures, incl. carbon border adjustments	decreasing	unclear	n/a
Price on carbon pollution: fuel regulations and OBPS	decreasing	unclear	n/a
Tax Credit for Investments in Clean Technology	unclear	increasing	n/a
Electricity			
Clean Electricity Standard	decreasing	unclear	n/a
Electricity Predevelopment Program	decreasing	unclear	n/a
Emerging Renewable Power Program	unclear	increasing	200.0
Engagement for Atlantic Loop Initiative	unclear	increasing	n/a
Indigenous Clean Energy Program	unclear	decreasing	36.0
Interprovincial transmission lines development	decreasing	unclear	250.0
Off-Diesel Hub for rural, remote, Indigenous communities: Overarching program	n/a (commentary)	n/a (commentary)	n/a

Name of measure	ERP poverty	ERP inequality	**Value committed** (in CAD million)
Off-Diesel Hub: Clean Energy for Rural and Remote Communities (CERCC)	neutral	decreasing	300.0
Off-Diesel Hub: Northern Responsible Energy Approach for Community Heat and Electricity (REACHE)	unclear	decreasing	40.4
Pan-Canadian Grid Council	decreasing	unclear	2.4
Phase-out of conventional coal-fired power plants by 2030	unclear	neutral	n/a
Regulatory performance standards for new natural gas units and converted coal-to-gas units	decreasing	unclear	n/a
Small Modular Reactor Action Plan Implementation	neutral	unclear	242.2
Smart Grids Program	decreasing	unclear	100.0
Smart Renewables and Electrification Pathways Program	unclear	neutral	922.0
Strategic Interties: interprovincial transmission infrastructure projects	decreasing	unclear	n/a
Enabling			
GGS: Federal Clean Electricity Fund	decreasing	unclear	n/a
Green Bonds	n/a (commentary)	n/a (commentary)	5,000.0
Greening Government Strategy Updated Targets / Policies (GGS)	decreasing	neutral	n/a
Just Transition for Canadian Coal Power Workers and Communities (Task Force)	n/a (commentary)	n/a (commentary)	n/a
Just transition legislation and comprehensive action	n/a (commentary)	n/a (commentary)	n/a

Name of measure	ERP poverty	ERP inequality	Value committed (in CAD million)
Heavy industry			
Clean Growth Program	decreasing	unclear	155.0
Cutting Corporate Taxes for Zero Emissions Technology	n/a (commentary)	n/a (commentary)	n/a
Strategic Innovation Fund – Net Zero Accelerator Initiative	n/a (commentary)	n/a (commentary)	8,000.0
Nature-based			
25 X 25 and 30 X 30	n/a (commentary)	n/a (commentary)	976.8
Indigenous Protected and Conserved Areas (IPCAs)	n/a (commentary)	n/a (commentary)	166.0
Natural Infrastructure Fund	n/a (commentary)	n/a (commentary)	200.0
Nature Based Climate Solutions Advisory Committee	n/a (commentary)	n/a (commentary)	n/a
NSCSF: 2 Billion Trees Program	n/a (commentary)	n/a (commentary)	3,190.0
Oil and gas			
Carbon Capture, Utilization, and Storage Strategy	decreasing	unclear	319.0
Emissions Reduction Fund (ERF)	unclear	unclear	750.0
Investment Tax Credit for Carbon Capture, Utilization, and Storage	decreasing	unclear	2,600.0
Oil and Gas Emissions Cap	decreasing	unclear	n/a
Oil and Gas Methane Regulations	decreasing	unclear	n/a
Transportation			
Carbon Offsetting and Reduction Scheme for International Aviation	decreasing	unclear	n/a
GGS: Greening Government fleet	neutral	increasing	2.2
iZEV for LDV	neutral	increasing	1,700.0
Light-duty vehicle (LDV) ZEV sales mandate	increasing	neutral	n/a

Name of measure	**ERP poverty**	**ERP inequality**	**Value committed** (in CAD million)
Light-duty on-road vehicle emissions regulations	n/a (commentary)	n/a (commentary)	n/a
Mandatory requirement that all new light-duty vehicle sales be zero-emission by 2035	increasing	neutral	n/a
MHDVs: MHDV ZEV regulation	increasing	neutral	n/a
MHDVs: Purchase incentive program for MHDVs	neutral	increasing	547.5
Public transit funding	decreasing	neutral	14,900.0
Zero Emission Vehicle Infrastructure Program (ZEVIP)	decreasing	increasing	680.0

Number of measures included: 67

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