Green Strings:

Principles and conditions for a green recovery from COVID-19 in Canada

IISD REPORT

Vanessa Corkal
Philip Gass
Aaron Cosbey

June 2020

Published by the International Institute for Sustainable Development

International Institute for Sustainable Development

The International Institute for Sustainable Development (IISD) is an independent think tank championing sustainable solutions to 21st–century problems. Our mission is to promote human development and environmental sustainability. We do this through research, analysis and knowledge products that support sound policymaking. Our big-picture view allows us to address the root causes of some of the greatest challenges facing our planet today: ecological destruction, social exclusion, unfair laws and economic rules, a changing climate. IISD's staff of over 120 people, plus over 50 associates and 100 consultants, come from across the globe and from many disciplines. Our work affects lives in nearly 100 countries. Part scientist, part strategist—IISD delivers the knowledge to act.

IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Province of Manitoba and project funding from numerous governments inside and outside Canada, United Nations agencies, foundations, the private sector and individuals.

Head Office

111 Lombard Avenue, Suite 325
Winnipeg, Manitoba
Canada R3B 0T4

Tel: +1 (204) 958-7700
Website: www.iisd.org
Twitter: @IISD_news

Green Strings: Principles and conditions for a green recovery from COVID-19 in Canada

June 2020

Written by Vanessa Corkal, Philip Gass, and Aaron Cosbey

Acknowledgements

The authors are grateful to the following individuals for providing support and advice on the report: Carter Brandon and Joel Jaeger (World Resources Institute), Simone Tagliapietra (Bruegel), Agustin Redonda (Council on Economic Policies), Dan Woynillowicz (Polaris Strategy + Insight), Marc Lee (Canadian Centre for Policy Alternatives), and Graeme Reed (University of Guelph).

Executive Summary

We are at a historic turning point the likes of which none of us have ever seen or will likely see again. The global health crisis—terrible as it is—has forced us to pursue recovery on a scale that will transform our economy and society, with lasting impacts on our ability to confront another urgent crisis—climate change. We stand at a threshold of opportunity where we can align our efforts for post-pandemic reconstruction with the challenge of meeting Canada's climate goals.

But this will only happen if it happens deliberately. That is, we must impose standards and conditions on bailouts, stimulus, and recovery spending to ensure that they are in sync with the ambitious climate change outcomes that Canadians need and expect.

The arguments for such conditions are straightforward. Given the levels of spending involved, actively steering outcomes is the government's right and duty. As well, green recovery measures are proven to create jobs and spur economic growth, which will contribute to the creation of a low-carbon economy where workers and communities can thrive. Finally, there is strong public support for ensuring a green recovery—a recent Abacus Data survey in Canada shows the majority of respondents agreed that the government's COVID-19 response must not back away from climate change efforts. Indeed, recovery efforts *must* be green if we are to address the climate and biodiversity crises along with the linkages between planetary health and human health.

To ensure a green recovery, clear guidelines are needed. **The following seven "green strings" should be attached to COVID-19 recovery measures announced by Canada's government.** "Green strings" are those key principles, criteria, and conditionalities that are critical to apply to our ongoing economic stimulus and recovery efforts.

1. **Financial support to industry must include conditions for a zero-emission transition.** It is crucial that support aligns with the goal of net-zero GHG emissions by 2050, and thereby keeps us from getting locked into unsustainable paths.
2. **Apply strict financial conditions to increase financial stability, secure jobs, and incentivize low-carbon transition.** This includes measures such as ensuring climate risk disclosure and prohibiting both buybacks and shareholder dividend payouts.
3. **Ensure recovery is worker-focused and accelerates and enables a just transition.** With massive layoffs resulting from COVID-19, linking support to worker conditions must be a priority. We must also ensure a just transition for those who must transition from high-carbon sectors.
4. **Support the evolution and creation of the sectors and infrastructure of tomorrow.** Government support should prioritize low-carbon sectors while striving for tangible social and economic benefits for communities.
5. **Protect, follow, and strengthen environmental regulations and climate policy frameworks during recovery.** Canada must not backtrack on environmental commitments and needs to pursue policies that put us on the right track.

6. **Ensure transparency and accountability.** Details of federal spending should be publicly available, and the conditionality of funds provided should be enforced.
7. **Support must contribute to increased equity and well-being, leaving no one behind.** We must address the inequities in our society if we are to truly build back better.

Canada has an unprecedented opportunity to alter its course and move toward a low-carbon economy that benefits communities in long-lasting and meaningful ways. **This is the moment to move collectively at a global scale to build a better future.** We can and must use the current window to pivot to a sustainable and equitable economy through a decisive and principled approach. The stakes are high.

Table of Contents

List of Boxes

Introduction

This paper sets out the "green strings" that should be attached to COVID-19 recovery measures announced by Canada's government. "Green strings" are key principles, criteria, and conditionalities that should be applied to economic recovery from COVID-19. Economic supports include bailouts (typically short-term support to keep industry afloat until the economy rebounds), stimulus measures to create jobs and get businesses and people investing and spending, and recovery measures that aim to set up the economy for longer-term stability. The green strings recommendations in this document are critical to apply to all supports as we enter a recovery phase and could also be applied to existing measures. The application of green strings can also support the government's development of longer-term economic strategies, including moving toward a circular economy, while increasing sustainability and resiliency.

Countries around the world are grappling with the unprecedented health crisis and economic impacts presented by COVID-19. At the same time, the world is grappling with already-occurring impacts, health and otherwise, from the climate and biodiversity crises. The federal government has committed to net-zero emissions by 2050 and setting legally binding 5-year milestones (Office of the Prime Minister, 2019a). How Canada responds to the economic impacts of COVID-19 will determine whether we can meet this goal and ensure a healthy, low-carbon future. **The current crisis, while presenting many difficulties, also provides an opportunity not to be missed: aligning efforts to meet Canada's climate goals with the challenge of economic reconstruction post-pandemic.**

Government spending in the wake of COVID-19 is necessary to promote economic activity and job creation, secure social protection, and save sectors vital to society's well-being. Ensuring supports are climate-focused can achieve these goals while charting a path to a sustainable, equitable, and resilient future. Canada has already taken some steps to align supports with climate change. There is much more opportunity to ramp up green strings to support a green and equitable recovery. **This is the moment to move collectively at a global scale to build a better future.**

Why Green Strings?

The crisis presented by COVID-19 creates an opportunity for policy dynamism, when previously inconceivable reform and investment is suddenly possible.[1] Bailouts, stimulus, and recovery spending have major potential to spur economic transformation through their unprecedented magnitude. To do so, clear principles for spending are needed. If applied incorrectly, measures will prevent or delay the structural changes we need to mitigate the climate and biodiversity crises (Climate Action Tracker et al., 2020; The Investor Agenda, 2020).[2]

The reasons to set and apply green strings are clear:

1. **Conditions in the public interest are the government's right and duty.** Major public spending comes at a cost for current and future Canadians. The government has a right and a duty to ensure that such spending will help advance—or at a minimum not frustrate—major public policy goals. Combatting climate change is one of our most important goals. Major spending *without* greens strings risks perpetuating an unsustainable economy and society when our current objectives—such as net-zero emissions by 2050—rightly demand radical change.
2. **The benefits of green stimulus and recovery measures are backed by evidence.** A recent survey of 231 economic experts and finance ministry officials on the performance of fiscal recovery measures shows that environmentally targeted stimulus can create as many jobs and as much growth as neutral or environmentally harmful measures (Hepburn et al., 2020). During the 2008–2009 global financial crisis, green stimulus policies performed extraordinarily well: for every USD 1 billion invested in the United States, 30,100 jobs were created (Heilmayr et al., 2009). Dollars spent on public transport infrastructure resulted in 70% more job hours than dollars spent on highways; likewise, funds directed toward coastal restoration created more job hours than had the funds been directed toward fossil fuel infrastructure (Edwards et al., 2013; Smart Growth America, 2011).
3. **A new economic model is needed for the workers of today and tomorrow.** At least 53,000 workers in Alberta lost jobs in the oil and gas sector from 2014 to 2019 (Hussey, 2020). A pre-pandemic study found that the clean energy sector in Canada will account for 559,400 jobs by 2030 (Clean Energy Canada, 2019b). Changes in technology and automation, in addition to economic shifts away from high-carbon sectors, make it clear that recovery must contribute to the creation of good quality jobs that can thrive in a low-carbon future and promote a circular economy.

---

[1] Calls for green recovery have been made far and wide by diverse groups, from the UN Secretary General, to the head of the International Energy Agency, to former Bank of England governor Mark Carney (Birol, 2020; Harvey, 2020a; Johansson, 2020).

[2] For example, in the 2008 financial crisis, "zombie banks" were kept alive through subsidies and liquidity. Similarly, evidence shows that discussion of climate change was sidelined in policy debates as short-term economic priorities were prioritized by policy-makers (Bär & Runkel, 2020).

4. **Urgent action is needed to address the climate crisis.** Achieving green economic recovery will not require a large increase in investment compared to a non-targeted recovery (Hepburn et al., 2020). Economic scenario analysis shows **only strong green measures will keep countries on track for a 1.5 °C scenario**—contingent on a rapid switch toward low-carbon investments and *away* from fossil fuels (Climate Action Tracker et al., 2020). While Canada has made significant progress on climate change over the past five years, we are currently not on track to meet our 2030 target and have not hit past targets (UNEP, 2019; Croome, 2020), demonstrating the need for a comprehensive, economy-wide approach.
5. **Health and climate change imperatives go hand in hand.** In a recent open letter to the G20, over 200 organizations representing half of the global health care workforce have called for a green recovery since the impacts of air pollution and the climate crisis will have dire impacts on health; similar calls were made by the World Health Organization (Harvey, 2020b; World Health Organization, 2020). COVID-19 has starkly illustrated that planetary and human health must be addressed side by side and that policy must be directly informed by science and scientific experts.
6. **There is strong public support for ensuring a green recovery.** In Canada, the majority of respondents in a recent survey agreed that the COVID-19 response must not back away from climate change efforts (Abacus Data, 2020). A survey in the United States and the United Kingdom found that up to 80% of respondents are willing to make lifestyle changes to deal with climate change comparable to those made during the pandemic (Townsend, 2020). Unlike previous crises, COVID-19 will fundamentally shift economic structures and human behaviour for decades, with lasting effects on the way we work, move, learn, and consume (Redonda, 2020). There is immense opportunity to encourage positive shifts through strategic recovery efforts.

Box 1. Where We Are Now

Canada has already provided a number of short-term support packages related to COVID-19 recovery that include relief for high-carbon sectors such as:

- CAD 1.72 billion for orphan and inactive well cleanup
- CAD 750 million for an Emissions Reduction Fund for the oil and gas sector
- Changes to the Export Development Act removing the cap on finance and some risk protections
- Business Credit Availability Program
- Large Employer Emergency Financing Facility
- Waiving of rent for ground leases for airport authorities
- Bank of Canada corporate bond program

Source: Bank of Canada, 2020; Canada Development Investment Corporation, 2020; Department of Finance, 2020; Department of Justice, 2020; Office of the Prime Minister, 2020.

The introduction of the Large Employer Emergency Financing Facility took an important step in incorporating conditions for climate risk disclosure and alignment with Canada's net-zero objectives (Canada Development Investment Corporation, 2020). There are opportunities to expand conditionality and green recovery principles past this measure alone.

Green Strings: Seven principles to guide recovery

This list of seven principles was developed based on a review of best international practices and recommendations from leading academics and experts, supplemented with input from key expert interviews.[3] The list is separated into two sections. The first identifies specific opportunities for conditionality and consists of key conditions for support and critical actions that will help make those conditions effective. The second outlines general cross-cutting principles to ensure green recovery.

Principles for Conditionality

The first three principles centre on key conditionalities that should be attached to fiscal supports for the private sector. Conditionalities should ideally be built into fiscal support from the start to send the right economic signals and allow companies to plan effectively for a low-carbon future (Palmer et al., 2020).

Principle 1. Financial support to industry must include conditions for a zero-emission transition.

KEY CONDITIONS TO APPLY

To receive federal support, firms with production assets in Canada should be required to develop a measurable plan to meet net-zero by 2050 consistent with Canada's commitments under the Paris Agreement. Government fiscal supports—whether in the form of bailouts, grants, loans, tax breaks, or equity purchases—should push industry toward a net-zero future compatible with the Paris Agreement (Hepburn et al., 2020; The Investor Agenda, 2020). Companies should report on progress on such plans into the future, for example at 5-year intervals (Hepburn et al., 2020). Company plans should not heavily rely on offsets or unproven negative emissions technologies.

It is vital that company action to meet net-zero is guided by, and aligns with, larger efforts at the federal level to develop climate accountability legislation and a functional framework to achieve net-zero by 2050 (see Principle 5) (Croome, 2019). The development of such a framework will provide

[3] The recommendations included in this document reflect the inclusion of addressing climate change as a key principle for recovery, as seen in other recovery frameworks proposed by leading institutions such as Smart Prosperity, Sitra, and the World Resources Institute (Pantsar & Tynkkynen, 2020; Smart Prosperity Institute, 2020).

a benchmark against which to measure company net-zero plans. Private sector net-zero plans must be considered an iterative process with emphasis on increasing robustness and ambition.[4]

Support to emissions-intensive sectors should be conditioned on actions by those sectors to significantly reduce emissions, and/or acceptance of regulatory changes that will drive such a reduction.[5] Substantial support for emissions-intensive sectors may, in some cases, be necessary as a bridge to keep them solvent and keep people employed until better conditions return. Governments should look for creative ways to craft such support so that it contributes to the transition of those sectors toward a viable low-carbon future. Each sector's characteristics will differ, demanding ad hoc solutions tailored to the specifics at hand. Boxes 2 to 4 describe specific conditions that have been proposed or implemented in the aviation, automotive, and oil and gas sectors.

Box 2. Applying Conditions to Key Sectors: Aviation

Canadian airlines are responsible for 22 Mt CO_2e per year and are growing (Transport Canada, 2020). Hepburn et al. (2020) have demonstrated that non-conditional aviation bailouts have performed extremely poorly in the past on numerous fronts. **Any aid to the sector must be linked to distinct conditions, including maintaining jobs, and be considered within a wider long-term plan to reduce air traffic, cut emissions, and transition workers in the sector.**[6] The aviation industry requires massive technological shifts or downsizing to meet targets under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (Liebrich, 2020).

Conditions applied to the aviation sector could include a number of criteria, including decarbonizing ground operations, improving low-carbon infrastructure, limiting domestic or short-haul flights, retiring carbon-intensive capital stocks, or setting biofuel or alternative fuel quotas (Climate Action Tracker et al., 2020; O'Callaghan & Hepburn, 2020; Pantsar & Tynkkynen, 2020; Rutherford, 2020). For example, France's bailout of Air France-KLM prohibits certain domestic flights for routes where journey by rail is less than two and a half hours (BBC News, 2020). Airlines should be required to disclose emissions on all flights in order to empower consumers to make responsible travel choices (Rutherford, 2020). Any policies developed must not interfere with the need for essential (e.g., medical) flights and for remote and Indigenous communities.

---

[4] *Recommendations of the Task Force on Climate-Related Financial Disclosures* provides an analogous example where company practices are expected to improve over time as processes and best practices evolve (Task Force on Climate-Related Financial Disclosures, 2019). For development of company net-zero plans in the short term, there are several high-quality guidance documents available, such as through the Science Based Targets Initiative (Science Based Targets, n.d.).

[5] The United States auto sector bailout after the global financial crisis is an example of the latter (Freeman, 2011).

[6] A particularly ambitious policy proposal for aviation conditionalities in the United States has been proposed by Lazonick et al. (2020). Climate Action Network International (2020) has also released guidelines on aviation bailouts.

Box 3. Applying Conditions to Key Sectors: Automotive

Support provided to the automotive sector needs to facilitate progress on Canada's targets on zero-emission vehicles and decarbonization of the transportation sector more generally. Support can be tied to electric vehicles (EVs), electrification infrastructure, and efficiency benchmarks. Incentives for scrappage programs should be proportional to fuel economy, with consumers receiving the highest incentives for purchases of zero-emission vehicles. Germany's automotive stimulus makes its buyback support conditional on the purchase of an EV, and the country has introduced higher taxes for emissions-heavy vehicles (Hetzner, 2020). In France, the recovery plan for the automotive sector includes an efficiency-based scrappage program, regulations to convert conventional cars to EVs, and a promise from industry to keep production in France and pursue environmentally friendly technology (Légifrance, 2020; Ubertalli, 2020).

More broadly, transportation-focused companies can be incentivized to transition their fleets. For example, food or small package delivery services, many of whom have seen a bump in demand due to the pandemic, could be required to invest in an accelerated shift to EVs (Liebrich, 2020). Overall, Canada must also move toward a stronger policy framework, better vehicle emission regulations, and a zero-emission vehicle industrial strategy (Woynillowicz, 2020).

Box 4. Applying Conditions to Key Sectors: Oil and gas

Support to the fossil fuel sector must be clearly tied to maintaining jobs and meeting environmental objectives, as has been done with the recent funding for orphan wells (Office of the Prime Minister, 2020). Other opportunities for conditionalities in the fossil fuel sector could include requiring all companies with retail transport fuel sales to build level 3 EV infrastructure (McNally & Moffatt, 2020).

CRITICAL ACTION IN SUPPORT OF PRINCIPLE 1: TOWARD ZERO EMISSIONS

Support should not be provided for industries that are clearly incompatible with a net-zero trajectory. Support should not create or lock in brown infrastructure, such as new infrastructure that increases capacity for emissions-intensive fossil fuel production.[7] Nor should it stimulate sectors that are major consumers of fossil fuels, where support would result in significantly increased emissions. To set a benchmark, it may be possible to identify compatible activities against an objective standard (for example, the EU taxonomy for sustainable activities) (European Commission, 2020a). Ultimately, government may need to decide between using concrete measurable indicators versus a more flexible approach that allows for discretionary decisions.

[7] Some of these investments would also pose significant financial risk. See Erickson & Lazarus, 2020.

Funding must uphold the "polluter pays" principle. For example, support for orphan wells reclamation should be contingent on regulatory reform that ensures companies pay for environmental damages in the long run, not taxpayers.

Principle 2. Apply strict financial conditions to increase financial stability, secure jobs, and incentivize the low-carbon transition.

KEY CONDITIONS TO APPLY

If large companies require government support to remain viable, support must be contingent on strict financial conditions to ensure funds maximize benefits for workers, communities, and the climate while positioning companies for the clean economy of the future. If financial conditionality is not applied, we could repeat the mistakes of the 2008 financial crisis—where executives and stock markets profited from public money with no benefit to workers or productivity (Kedward, 2020). In some scenarios, it may make sense for government to take equity in a company; in these cases, government should leverage its new role to ensure climate change goals are met (Steffen et al., 2020).

To spur the low-carbon transition, Canada should make it mandatory for all companies receiving funds to carry out robust climate risk disclosure, at minimum the reporting framework of the Task Force on Climate-related Financial Disclosures (TCFD). Current levels of climate risk disclosures in Canada are inadequate (Canadian Securities Administrators, 2018; Chartered Professional Accountants Canada, 2019). Disclosure of climate-related risk has been demonstrated as critical to incentivizing investors to shift to low-carbon economies and to ensure financial stability (Johansson, 2020; Levy, 2020).

Corporate stock buybacks, shareholder dividend payouts, or executive bonuses and salary increases should not be allowed.[8] At minimum, for loans, this condition must be in place until the loan is fully repaid; for grants, the condition should be in place until the economy is no longer in recession (Pellerin-Carlin et al., 2020). Canada has already committed to some limitations under the Large Employer Emergency Financing Facility (LEEFF) (Canada Development Investment Corporation, 2020), but more must be done. Above-market dividend payouts are the norm in the oil and gas sector, which has added billions in debt in the past year alone (Bousso, 2020). A recent Bloomberg report showed that the largest U.S. airlines used 96% of free cash flow to buy back shares (Kochkin, 2020). Some companies have even borrowed money to do buybacks, which has increased their vulnerability to economic declines and undermined investment in workers (Lazonick et al., 2020). Taxpayer dollars should not be used to support these practices. In Germany, companies have been asked to suspend dividends and reduce wages and bonuses for executives to be eligible for loans and guarantees (Jennen, 2020). Canada should also explore options to limit pay gaps between the highest and lowest paid workers at companies receiving aid (Redonda, 2020).

[8] For additional specific recommendations on the mining and oil and gas sectors, refer to IGF & ATAF, 2020.

Companies that use offshore tax or anonymous shell companies should not be eligible for support.[9] Canadian foreign direct investment in tax havens was CAD 284 billion in 2016 (Canadians for Tax Fairness, 2017). Taxpayers should not be providing money to companies storing financial resources in tax-sheltered jurisdictions. France, Denmark, Poland, Austria, and Scotland have all provided varying provisions restricting companies that use tax havens from receiving funds (Bostock, 2020; Redeke & Trautvetter, 2020).

CRITICAL ACTION IN SUPPORT OF PRINCIPLE 2: SUSTAINABLE FINANCE FOR A GREEN RECOVERY

Alongside the principles and conditions listed in this paper, Canada should work toward a wider adoption of sustainable finance approaches, including implementing the recommendations of the Expert Panel on Sustainable Finance and phasing out fossil fuel subsidies. Canada can also adopt more international off-the-shelf approaches, such as the EU Sustainable Finance taxonomy and stricter European Investment Bank-style requirements for Canada's financial institutions. Developing a classification system like the EU taxonomy for sustainable activities could also assist Canada to green the financial sector and guide economic recovery by establishing performance thresholds for key sectors (European Commission, 2020a; Tubiana, 2020). The taxonomy includes a "do no harm" test that is intended to minimize investments in fossil fuels and nuclear power (European Commission, 2019).

Recovery measures implemented by the Bank of Canada, including quantitative easing, must also incorporate climate change objectives (Kedward, 2020; Martinez-Diaz & Christianson, 2020). The failure of central banks to integrate climate change after the global financial crisis led to banks purchasing a disproportionate share of assets from high-carbon firms (Martinez-Diaz & Christianson, 2020). The Bank of England has implemented measures to embed climate change into its activities, which provides one useful model (Bank of England, 2020)

Principle 3. Ensure recovery is worker-focused and accelerates and enables a just transition.

KEY CONDITIONS TO APPLY

Government must link support to worker conditions. The current crisis has triggered a job apocalypse: massive numbers of job layoffs for workers globally, including 3 million in Canada as of early May (Britneff, 2020). Any recovery efforts must be done with the health and safety of workers as a top concern and should endeavour to reduce inequality, create good quality and

[9] Tax Justice Network provides a five-step test for governments to identify companies using tax havens and to determine how conditionality should apply (Bou Mansour, 2020).

well-paid jobs, and maximize employment (Canadian Labour Congress, 2020).[10] Support should be linked to ensuring that the labour force is kept employed or actively transitioned, that pensions are secure and whole, and that negotiated working conditions (including wages, sick leave and related packages) are upheld. There is also a need to support those who are unemployed, under-employed, or in precarious work situations.

Support should facilitate the retraining of workers for the green economy. Funding should contribute to the career development of workers so that workers do not have to bear the costs of adjustments (including job transfer and training costs). For example, fossil fuel companies receiving stimulus could be required to pay skills training for their workers and support recognized training programs (McNally & Moffatt, 2020). Workers in transitioning sectors must be able to access skills training while they are on the job, and training must be portable so that credentials will be recognized by other employers.

CRITICAL ACTION IN SUPPORT OF PRINCIPLE 3: SUPPORTING WORKERS

Canada must ensure a just transition for workers and communities transitioning from high-carbon sectors, following international best practices.[11] The recommendations from the Task Force on Just Transition for Canadian Coal Power Workers and Communities (Government of Canada, 2019) should be fully implemented, and approaches to a just transition should be expanded to other fossil fuel workers and communities. Canada could mirror increased efforts on a just transition internationally, such as the recent top-up of the European Commission Just Transition Fund to EUR 40 billion (European Commission, 2020b). In some sectors, such as the aviation sector, maintaining 100% of the pre-COVID-19 workforce in the long term may not be possible or necessarily desirable in the context of a low-carbon economy. It is crucial that the government develop longer-term strategies on how to reduce emissions in—and facilitate transition from—high-carbon sectors, including by following through on the commitment to enact a just transition act for all energy workers (Office of the Prime Minister, 2019b).

The more opportunities to involve labour representatives in planning, the better. Company plans for net-zero should be developed with worker representation at the table. Results from the global financial crisis indicate labour participation in management can be a stabilizing factor for recovery (Rios, 2020). There are excellent international examples, such as German works councils, where workers can participate in longer-term planning (Lawton, 2020).

Canada must train the workforce of tomorrow. Beyond workers facing a transition, there is also a large population of young people who will be coming into a new economy. Canada must

[10] The Canadian Labour Congress has released a suite of recommendations, *Labour's Vision for Economic Recovery*, available at: https://canadianlabour.ca/labours-vision-for-economic-recovery/
The International Trade Union Confederation has released multiple statements, including *Key Issues on the Return to Work*, available at: https://www.ituc-csi.org/IMG/pdf/ituc_-_key_issues_on_the_return_to_work.pdf

[11] See the International Labour Organization's *Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All*, available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf

support training the upcoming generation for low-carbon jobs. With the Indigenous population the fastest growing population in Canada (Statistics Canada, 2017), there are also dual benefits in addressing future youth jobs in parallel with reconciliation to ensure Indigenous youth are able to acquire skills for a green economy in line with their cultural practices.

Box 5. Applying Conditions to Key Sectors: Buildings

Green stimulus in the buildings sector has immense opportunity to create jobs while creating tangible benefits for communities through deep retrofits and energy-efficient construction, including for affordable housing. Stimulus in the buildings sector should be accompanied by robust energy-efficiency criteria, with existing targets increased and measures to ensure provinces and territories adopt high standards (Lockhart, 2020; Pembina Institute, 2020).[12] British Columbia's Energy Step Code is an excellent case study of the kinds of standards that could be conditions of support, whose adoption can be furthered by provincial stakeholder councils (Energy Step Code, 2018; Lockhart, 2020). Investments in federally funded, owned or leased building projects should move toward zero-carbon construction (Canada Green Building Council, 2020). Funding for development costs could be scaled based on the emissions reduction potential of new construction, with a portion contingent on performance (Canada Green Building Council, 2020). Opportunities can be explored to ensure new construction can be connected to other low-carbon infrastructure such as power storage and EV charging infrastructure (Climate Action Tracker et al., 2020).

[12] Additional recommendations on principles to ensure green recovery in the building sector can be seen in Lockhart (2020). Opportunities to tie building-related transfers to the adoption of standards could take inspiration from similar measures for health care transfers (Galloway & Grant, 2016).

Cross-Cutting Principles to Ensure Green Recovery

The next four principles are cross-cutting recommendations to ensure that the government's approach to recovery, including policy and fiscal supports, supports crucial environmental and equity goals.

Principle 4. Support the evolution and creation of the sectors and infrastructure of tomorrow.

Support should contribute to building decarbonized energy and electricity sectors. Government should use stimulus to increase access to clean and affordable electricity for all residents of Canada. The federal government's target is for 90% of the country's electricity to come from non-emitting sources by 2030 (Environment and Climate Change Canada, 2016). To do this requires modern electricity grids, storage, transmission infrastructure, and district energy, including in regions with emissions-heavy power sectors such as Alberta, Saskatchewan, and diesel-reliant regions. The government should prioritize clean energy access for remote, Indigenous, and low-income communities. The declining cost of renewable energy creates an opportunity to increase access to clean energy among key populations (Climate Action Tracker et al., 2020). However, equally important is support for demand-side programs to reduce energy consumption and increase quality of life in order to reduce the need for new energy production projects.

Canada should invest in the low-carbon fuels of the future, as well as electrification and low-carbon solutions for key sectors. Approaches such as clinker substitutes in cement production are urgently needed to decarbonize heavy industry. Canada should also identify opportunities to maximize environmental and health gains through new spending, such as mandating low-carbon requirements in public procurement and in infrastructure spending (Clean Energy Canada, 2017, 2019a). For transportation, funding should support public transit and active transportation projects rather than urban highway and airport expansion.

Government should focus on supporting start-ups and early-stage companies that offer innovative solutions. To be effective in the short term, commercial off-the-shelf solutions are needed for job creation and competitiveness (Denning, 2020), but in the longer term we must invest in innovation that will drive clean sector development. For example, Torrie et al. (2020) have called for a CAD 25 billion Energy Innovation Fund to focus on research and development as well as commercial deployment; this could be expanded more generally to a low-carbon innovation fund focusing on investments beyond energy, including those that support a circular economy. Supporting social enterprises and community-based projects can ensure tangible social and economic benefits reach communities in need. Disadvantaged communities should be targeted, with direct carve-outs from existing funding streams and new stimulus programs provided for Indigenous communities.

Support should drive climate resilience, consistent with the adaptation goal of the Paris Agreement. We can no longer approach climate change through the dichotomy of mitigation versus adaptation, as the two are invariably intertwined. Canada's COVID-19-related investments should not miss the opportunity to maximize resilience and economic co-benefits. Investments in natural infrastructure can serve to meet the twin objectives of mitigation and adaptation, while also providing additional co-benefits such as biodiversity protection. As noted by the Global Commission on Adaptation (2019), the overall rate of return on investments in climate adaptation is extremely high. In addition, agricultural stimulus must advance efforts to achieve the structural changes needed to enhance climate resiliency while reducing greenhouse gas emissions and other environmental impacts.

Principle 5. Protect, follow, and strengthen environmental regulations and climate policy frameworks during recovery.

Advancing energy transition policies will help Canada pursue a roadmap for green recovery. Canada's Nationally Determined Contribution (NDC) under the Paris Agreement already presents the steps that must be taken to reach climate change goals, and it can be used as a guide for recovery planning (Steiner & Camera, 2020). Canada should strengthen its NDC in advance of COP 26 and provide further details on its commitments to increase ambition, as well as how COVID-recovery efforts can align with this ambition. Canada must also not delay on developing new crucial policies that will support climate change action and a move toward a circular economy. Legal measures to enshrine our climate change commitments in law and provide a functional framework to achieve net-zero by 2050 will ensure the government remains accountable to Canadians and the international community in achieving its climate targets, while providing greater certainty to the private sector and guiding economic recovery (Beugin et al., 2020; Croome, 2020).

Strengthening, improving, and enforcing existing environmental regulations and policies will ensure government support puts us on the right track. It is important that Canada not suspend, delay, or roll back emissions standards, environmental taxes including carbon pricing, taxes and levies for high-carbon sectors, or other regulations. During recovery it will be crucial to continue with existing plans such as the Clean Fuel Standard and Net-Zero Building Code. Canada should also look to ensure land and environmental regulations uphold Indigenous rights and address broader reconciliation goals.

Canada should make use of the federal impact assessment process to ensure that new infrastructure is designed to support sustainability. The new impact assessment regime offers a process to evaluate environmental, social, and economic impacts and benefits; to support Indigenous rights; and to include public and community engagement. It can be mobilized to assess individual projects, regional development, or strategic policies or undertakings. As such, it offers an established set of tools to balance multiple objectives and maximize the benefits of stimulus funding. Canada should ensure that an effective climate test for assessed projects is developed and implemented. To support net-zero pathways, the Project List and other components of the Impact Assessment Act should be reviewed to ensure all large emitting projects are assessed within Canada's 5-year carbon budgets.

Principle 6. Ensure transparency and accountability.

Transparency on all federal funds disbursed should be provided, including those disbursed through federal credit agencies. This should include a list of funding recipients and amounts provided, and information on what conditions have been applied. Regular updates should be provided to the public on whether conditions are being met. As part of increased transparency, the government should explore further measures to foster tax transparency and fossil fuel subsidy transparency and reform (Corkal et al., 2020; Redonda, 2020). Funding provided to subnational governments, including provinces and municipalities, should also be made public and accountable to ensure benefits are maximized and that funding is reaching communities in need.

Conditionality of funds provided by government should be enforced. Companies who have received funding with conditions must have clear and measurable indicators and reporting requirements. Enforcement of conditions for funding is crucial but has often been neglected.[13] Policy-makers should be aware of the structure needed and the financial resources required to enforce any conditionality that may be included in support packages.

If large firms do not follow funding conditions, financial or otherwise, government should consider provisions to convert the type of aid provided. For example, large companies could have their loans converted to equity if conditions are not met. Likewise, money provided as direct spending (grants) can be converted to loans. The government should also consider opportunities to reduce the overall public debt by building in conditions to convert grants to loans once a firm begins to turn a profit, or once the recession has ended. Government can also consider waiving conversion if companies meet climate change-related conditionalities, as a further incentive for companies to comply.

Principle 7. Support must contribute to increased equity and well-being, leaving no one behind.

Relief and recovery efforts must focus on improving well-being, particularly of those who have been historically and structurally oppressed. COVID-19 and climate change are both magnifiers for deep inequities that exist in our society that must be meaningfully addressed if we are to build back better. In Canada, at least 438 civil society groups have signed the Principles

[13] For example, in Canada, a report from the Auditor General shows that enforcement and transparency after the 2008 automotive bailout was insufficient and that more comprehensive reporting and analysis was needed on use of the funds, impact on company restructuring, and loan repayment (Owram, 2014).

for a Just Recovery,[14] which outline how the well-being of peoples and ecosystems must be prioritized to build an equitable and resilient society (*Just Recovery for All,* 2020). Government should use the current window to address historical inequities for communities that have not been able to fully participate in the economy, while ensuring conversations and decision making around recovery are inclusive.

Canada should strive to broaden the public good from COVID-19-related spending as much as possible. Locally focused investments are key to building community-level capacity and ensuring disadvantaged communities benefit. For example, using Community Benefits Agreements where there is project-specific funding will ensure traditionally under-served communities are able to benefit from projects (including from jobs and training) (Community Benefits Coalition of BC, n.d.). Local communities should be actively involved in designing community-based recovery plans.

Canada should fully implement the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and ensure recovery upholds Indigenous rights, strengthens nation-to-nation relationships, and increases the adaptive capacity of Indigenous Peoples.[15] The COVID-19, climate, and biodiversity crises illustrate the continued impacts of colonialism on Indigenous Peoples in Canada, who continue to be chronically underfunded.[16] Direct transfers will ensure communities can access crucial relief and recovery funding, but there is also a need to minimize administrative burdens for low-capacity communities in need of support.

Government response to COVID-19 must strive for gender equality. The pandemic has disproportionately impacted female-dominated job sectors (Alini, 2020). A green recovery must consider gender impacts and include measures such as robust, quality childcare to ensure women are not left further behind. Green jobs include not only jobs in the energy and manufacturing sectors, but also jobs in the care and service economies and those that support broader social goals.

---

[14] For example, in Canada, a report from the Auditor General shows that enforcement and transparency after the 2008 automotive bailout was insufficient and that more comprehensive reporting and analysis was needed on use of the funds, impact on company restructuring, and loan repayment (Owram, 2014).

[15] Additional crucial actions by government that will contribute to reconciliation and increased climate resilience include abiding by the Principles Respecting the Government of Canada's Relationship with Indigenous Peoples, implementation of the Truth and Reconciliation Commission Calls to Action, and more (Department of Justice, 2017; Truth and Reconciliation Commission, 2015).

[16] See, for example, the declaration of a First Nations Climate Emergency (Assembly of First Nations, 2019).

Conclusion

We are straddling a historic moment—in the midst of dealing with a global health crisis, the ways in which governments decide to pursue recovery will lock in consumption patterns for decades. As UN Secretary-General António Guterres has stated, COVID-19 has provided a wake-up call (United Nations, 2020). We can no longer continue with the status quo, worsening the climate and biodiversity crises and locking in our country and the global community to stark health, environmental, and economic outcomes. We can and must use the current window to pivot to a sustainable and equitable economy with a decisive and principled approach.

Here in Canada, the government is under significant pressure from key high-carbon sectors to provide bailout funding, including the oil and gas, automotive, and aviation sectors (Nuthall, 2020; Patel, 2020; Rabson, 2020; Roberts, 2020). There is a risk of an even higher emissions trajectory if policy-makers do not consider climate change in economic responses to COVID-19 (Le Quéré et al., 2020). If recovery spending is captured by special interest groups, social protection, workers' rights, and environmental policy goals could be undermined well into the future (Tubiana, 2020).

We must seize this difficult moment to transform our economy and our institutions to serve vital public policy goals from the environment to equity. By learning from past crises, such as the global financial crisis in 2008–2009, and from other countries in their responses to COVID-19, Canada can create lasting improvements and facilitate positive structural change. Aligning the principles in this paper with robust frameworks and accountability mechanisms to achieve our climate change goals will contribute to a sustainable and resilient recovery for all.

The principles outlined in this paper are only one part of an equitable and fair recovery from COVID-19. The goals of recovery packages should ultimately include not only environmental goals but also social well-being goals to increase our resilience to future crises, ensure equitable distribution of resources and access to social services, and move beyond traditional measurements of success like GDP. Canada has an immense opportunity to support workers and move our country to low-carbon systems that benefit communities in long-lasting and meaningful ways. The stakes are high.

References

Abacus Data. (2020, May 28). *Canadians are hoping for a "cleaner recovery" from pandemic*. https://abacusdata.ca/clean-recovery-clean-energy-canada/

Alini, E. (2020, May 9). Welcome to the 'she-session.' Why this recession is different. *Global News.* https://globalnews.ca/news/6907589/canada-coronavirus-she-session/

Assembly of First Nations. (2019). *Declaring a First Nations climate emergency.* https://www.afn.ca/wp-content/uploads/2019/08/19-05-Declaring-a-First-Nations-Climate-Emergency.pdf

Bank of Canada. (2020, April 15). *Bank of Canada to Introduce a Corporate Bond Purchase Program*. https://www.bankofcanada.ca/2020/04/bank-canada-introduce-corporate-bond-purchase-program/

Bank of England. (2020). *Climate change*. http://www.bankofengland.co.uk/climate-change

Bär, H., & Runkel, M. (2020). *How the necessary economic support measures can cushion the corona crisis and accelerate the ecological transition.* Forum ökologische Soziale Marktwirtschaft. https://foes.de/publikationen/2020/200330_FOES_Economic_support_measures_corona_crisis.pdf

BBC News. (2020, May 4). *Air France "must cut domestic flights to get aid."* https://www.bbc.com/news/world-europe-52527517

Beugin, D., Dion, J., Kanduth, A., Lee, C., Sawyer, D., & Arnold, J. (2020). *Marking the way: How legislating climate milestones clarifies pathways to long-term goals.* Canadian Institute for Climate Choices. https://climatechoices.ca/reports/marking-the-way/

Birol, F. (2020, March 24). How to make the economic recovery from coronavirus an environmentally sustainable one. *Prospect Magazine*. https://www.prospectmagazine.co.uk/economics-and-finance/how-to-make-the-economic-recovery-from-coronavirus-a-sustainable-one-covid-19-recession-climate-environment

Bostock, B. (2020, April 23). France is barring firms registered in offshore tax havens from its government coronavirus bailout, following similar bans in Denmark and Poland. *Business Insider.* https://www.businessinsider.com/france-coronavirus-bailout-tax-haven-registered-subsidies-ineligible-020-4

Bou Mansour, M. (2020, April 23). *Bail, or bailout? Tax experts publish 5-step test for Covid19 business bailouts.* Tax Justice Network. https://www.taxjustice.net/2020/04/23/bail-or-bailout-tax-experts-publish-5-step-test-for-covid19-business-bailouts/

Bousso, R. (2020, March 25). Big Oil may have to break dividend taboo as debt spirals: Investors. *Reuters.* https://www.reuters.com/article/us-global-oil-majors-idUSKBN21C0RR

Britneff, B. (2020, May 8). Coronavirus: How long will pandemic-related job losses last in Canada? *Global News.* https://globalnews.ca/news/6921273/coronavirus-pandemic-related-job-losses-canada/

Canada Development Investment Corporation. (2020). *Large Employer Emergency Financing Facility factsheet*. https://www.cdev.gc.ca/leeff-factsheet/

Canada Green Building Council. (2020). *Ready set grow: CaGBC tables recommendations for Canada's post-COVID-19 economic recovery.* https://www.cagbc.org/News/EN/2020/20200513_News_Release.aspx

Canadian Labour Congress. (2020). *Labour's vision for economic recovery.* https://canadianlabour.ca/wp-content/uploads/2020/05/LabourPrioritiesForEconomicRecovery-final-2020-05-13-EN-1.pdf

Canadian Securities Administrators. (2018). *Report on Climate change-related Disclosure Project*. https://www.osc.gov.on.ca/documents/en/Securities-Category5/csa_20180405_climate-change-related-disclosure-project.pdf

Canadians for Tax Fairness. (2017). *Bay Street and tax havens: Curbing corporate Canada's addiction*. https://www.taxfairness.ca/sites/default/files/pdf/canadian_for_tax_fairness_-_tax_havens_2017_april_2018_web.pdf

Chartered Professional Accountants Canada. (2019). *2019 study of climate-related disclosures by Canadian public companies: Summary report.* http://www.cpacanada.ca/en/business-and-accounting-resources/financial-and-non-financial-reporting/mdanda-and-other-financial-reporting/publications/climate-related-disclosure-study-2019-summary

Clean Energy Canada. (2017). *The power of procurement: How governments can drive clean growth, cut carbon and create jobs.* https://cleanenergycanada.org/wp-content/uploads/2018/03/Power-of-Procurement_FINAL.pdf

Clean Energy Canada. (2019a). *Building the future: How smart public infrastructure decisions can cut pollution, save money, and support a clean economy.* https://cleanenergycanada.org/wp-content/uploads/2019/02/Report_PublicInfrastructure_022019_FINAL.pdf

Clean Energy Canada. (2019b, October 3). *Canada's clean energy sector set to accelerate amid fossil fuel slowdown.* Clean Energy Canada. https://cleanenergycanada.org/canadas-clean-energy-sector-set-to-accelerate-amid-fossil-fuel-slowdown/

Climate Action Network International. (2020). *Sustainable policy responses for the aviation sector in the COVID crisis.* http://climatenetwork.org/sites/default/files/can_international_sustainable_policy_responses_for_the_aviation_sector_in_the_covid_crisis_june_2020.pdf

Climate Action Tracker, New Climate Institute, & Climate Analystics. (2020). *A government roadmap for addressing the climate and post COVID-19 economic crises.* https://climateactiontracker.org/documents/706/CAT_2020-04-27_Briefing_COVID19_Apr2020.pdf

Community Benefits Coalition of BC. (n.d.). *Home page*. http://letsbuildbc.ca/

Corkal, V., Levin, J., & Gass, P. (2020). *Canada's fossil fuel subsidies in 2020.* International Institute for Sustainable Development. https://www.iisd.org/sites/default/files/publications/canada-fossil-fuel-subsidies-2020-en.pdf

Croome, J. (2020). *Policy brief: A New Canadian Climate Accountability Act: Building the legal foundation to achieve net-zero emissions by 2050* (p. 21). Ecojustice. https://www.ecojustice.ca/wp-content/uploads/2020/05/policy-brief-a-new-canadian-climate-accountability-act.pdf

Denning, L. (2020, May 19). Smart energy stimulus means thinking small. *Bloomberg.* https://www.bloomberg.com/opinion/articles/2020-05-19/coronavirus-smart-energy-stimulus-thinks-small-uses-renewables

Department of Finance. (2020, March 30). *Support to Canada's air transportation sector [Backgrounders]*. https://www.canada.ca/en/department-finance/news/2020/03/support-to-canadas-air-transportation-sector.html

Department of Justice. (2017, July 14). *Principles respecting the Government of Canada's relationship with Indigenous peoples*. https://www.justice.gc.ca/eng/csj-sjc/principles-principes.htm

Department of Justice. (2020, May 26). *COVID-19 Emergency Response Act.* https://laws-lois.justice.gc.ca/eng/AnnualStatutes/2020_5/page-1.html

Edwards, P. E. T., Sutton-Grier, A. E., & Coyle, G. E. (2013). Investing in nature: Restoring coastal habitat blue infrastructure and green job creation. *Marine Policy, 38,* 65–71. https://doi.org/10.1016/j.marpol.2012.05.020

Energy Step Code. (2018). *How the BC Energy Step Code works.* https://energystepcode.ca/how-it-works/

Environment & Climate Change Canada. (2020). *Greenhouse gas emissions: Canadian environmental sustainability indicators.* https://www.canada.ca/content/dam/eccc/documents/pdf/cesindicators/ghg-emissions/2020/greenhouse-gas-emissions-en.pdf

Environment and Climate Change Canada. (2016, November 24). *Powering our future with clean electricity.* https://www.canada.ca/en/services/environment/weather/climatechange/climate-action/powering-future-clean-energy.html

Erickson, P., & Lazarus, M. (2020). *Examining risks of new oil and gas production in Canada.* Stockholm Environment Institute. https://www.sei.org/publications/examining-risks-of-new-oil-and-gas-production-in-canada/

European Commission. (2019). *Taxonomy technical report.* https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-taxonomy_en.pdf

European Commission. (2020a, April 17). *EU taxonomy for sustainable activities.* European Commission. https://ec.europa.eu/info/publications/sustainable-finance-teg-taxonomy_en

European Commission. (2020b, May 28). *Questions and answers on the Just Transition Mechanism.* European Commission. https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_931

Freeman, J. (2011). The Obama administration's National Auto Policy: Lessons from the "Car Deal." *Harvard Environmental Law Review, 35,* 32.

Galloway, G., & Grant, K. (2016, October 17). Ottawa won't boost provincial health transfers without reform plan: Philpott. *The Globe and Mail.* https://www.theglobeandmail.com/news/politics/sdf/article32388926/

Global Commission on Adaptation. (2019). *Adapt now: A global call for leadership on climate resilience*. https://gca.org/global-commission-on-adaptation/report

Government of Canada. (2019). *Task Force: Just Transition for Canadian Coal Power Workers and Communities*. https://www.canada.ca/en/environment-climate-change/services/climate-change/task-force-just-transition.html

Harvey, F. (2020a, April 28). UN chief: Don't use taxpayer cash to rescue carbon-intensive industries. *The Guardian.* https://www.theguardian.com/environment/2020/apr/28/un-chief-dont-use-taxpayer-money-to-save-polluting-industries

Harvey, F. (2020b, May 26). World health leaders urge green recovery from coronavirus crisis. *The Guardian.* https://www.theguardian.com/environment/2020/may/26/world-health-leaders-urge-green-recovery-from-coronavirus-crisis

Heilmayr, R., Houser, T., & Mohan, S. (2009). *A green global recovery? Assessing U.S. economic stimulus and prospects for international coordination.* World Resources Institute. https://www.wri.org/publication/green-global-recovery-assessing-us-economic-stimulus-and-prospects-international

Hepburn, C., O'Callaghan, B., Stern, N., Stiglitz, J., & Zenghelis, D. (2020). Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change? *Oxford Review of Economic Policy,* graa015. https://doi.org/10.1093/oxrep/graa015

Hetzner, C. (2020, June 4). Germany doubles EV incentives, excludes internal-combustion cars from stimulus program. *Automotive News*. https://www.autonews.com/sales/germany-doubles-ev-incentives-excludes-internal-combustion-cars-stimulus-program

Hussey, I. (2020). *The future of Alberta's oil sands industry: More production, less capital, fewer jobs.* Parkland Institute. https://d3n8a8pro7vhmx.cloudfront.net/parklandinstitute/pages/1785/attachments/original/1583615491/futureofalbertasoilsands.pdf?1583615491

Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF) & African Tax Administration Forum (ATAF). (2020). *Mining tax policy responses to COVID-19.* https://www.igfmining.org/blog-mining-tax-policy-responses-to-covid-19/

Jennen, B. (2020, March 30). Germany wants companies to suspend dividends for virus aid. *Bloomberg.* https://www.bloomberg.com/news/articles/2020-03-30/germany-asks-companies-to-suspend-dividends-for-coronavirus-aid

Johansson, E. (2020, May 29). Time for mandatory TCFD reporting, says Mark Carney. *Expert Investor Europe.* https://expertinvestoreurope.com/time-for-mandatory-tcfd-reporting-says-mark-carney/

Just Recovery for All. (2020). *Home page.* https://justrecoveryforall.ca/

Kedward, K. (2020, May 28). *Central banks have a duty to provide 'green forward guidance.'* Medium - UCL Institute for Innovation and Public Purpose. https://medium.com/iipp-blog/central-banks-have-a-duty-to-provide-green-forward-guidance-fd947a77045b

Kochkin, B. (2020, March 16). U.S. airlines spent 96% of free cash flow on buybacks. *BNN Bloomberg.* https://www.bnnbloomberg.ca/u-s-airlines-spent-96-of-free-cash-flow-on-buybacks-1.1406957

Lawton, S. (2020, March 2). *European Works Councils advocate a just transition into the future of work.* EURACTIV. https://www.euractiv.com/section/economy-jobs/news/european-works-councils-advocate-a-just-transition-into-the-future-of-work/

Lazonick, W., Hopkins, M., Jacobson, K., Palladino, L., Erdum Sakinc, M., & Tulum, O. (2020, March 23). *4 ways to eradicate the corporate disease that is worsening the Covid-19 pandemic.* Institute for New Economic Thinking. https://www.ineteconomics.org/perspectives/blog/4-ways-to-eradicate-the-corporate-disease-that-is-worsening-the-covid-19-pandemic

Le Quéré, C., Jackson, R. B., Jones, M. W., Smith, A. J. P., Abernethy, S., Andrew, R. M., De-Gol, A. J., Willis, D. R., Shan, Y., Canadell, J. G., Friedlingstein, P., Creutzig, F., & Peters, G. P. (2020). Temporary reduction in daily global CO_2 emissions during the COVID-19 forced confinement. *Nature Climate Change,* 1–7. https://doi.org/10.1038/s41558-020-0797-x

Légifrance. (2020, April 3). *JORF n°0081—Arrêté du 13 mars 2020 relatif aux conditions de transformation des véhicules à motorisation thermique en motorisation électrique à batterie ou à pile à combustible.* https://beta.legifrance.gouv.fr/jorf/texte_jo/JORFTEXT000041780558

Levy, J. (2020). *Designing the COVID-19 recovery for a safer and more resilient world.* World Resources Institute. https://wriorg.s3.amazonaws.com/s3fs-public/wri-commentary-designing-covid-19-recovery-safer-and-more-resilient-world_0.pdf

Liebrich, M. (2020, March 26). Covid-19 – The low-carbon crisis. *Bloomberg NEF.* https://about.bnef.com/blog/covid-19-the-low-carbon-crisis/

Lockhart, K. (2020, April 13). *How today's economic recovery policies can bake-in tomorrow's energy efficient buildings.* Efficiency Canada. https://www.efficiencycanada.org/how-todays-economic-recovery-policies-can-bake-in-tomorrows-energy-efficient-buildings/

Martinez-Diaz, L., & Christianson, G. (2020, May 11). *Quantitative easing for economic recovery must consider climate change*. World Resources Institute. https://www.wri.org/blog/2020/05/coronavirus-responsible-quantitative-easing

McNally, J., & Moffatt, M. (2020, April 22). 8 conditions Canada should attach to upcoming oil and gas bail-outs. *Smart Prosperity Institute*. https://institute.smartprosperity.ca/content/oil-and-gas-bail-outs

Nuthall, K. (2020, May 27). *Canadian auto sector seeks government customer incentives.* WardsAuto. https://www.wardsauto.com/industry/canadian-auto-sector-seeks-government-customer-incentives

O'Callaghan, B., & Hepburn, C. (2020, May 6). Why airline bailouts are so unpopular with economists. *The Conversation.* http://theconversation.com/why-airline-bailouts-are-so-unpopular-with-economists-137372

Office of the Prime Minister. (2019a). *Minister of Environment and Climate Change Mandate Letter.* Prime Minister of Canada. https://pm.gc.ca/en/mandate-letters/2019/12/13/minister-environment-and-climate-change-mandate-letter

Office of the Prime Minister. (2019b). *Minister of Natural Resources Mandate Letter.* https://pm.gc.ca/en/mandate-letters/2019/12/13/minister-natural-resources-mandate-letter

Office of the Prime Minister. (2020, November 5). *Prime Minister announces additional support for businesses to help save Canadian jobs.* Prime Minister of Canada. https://pm.gc.ca/en/news/news-releases/2020/05/11/prime-minister-announces-additional-support-businesses-help-save

Owram, K. (2014, November 25). Canada's $9-billion auto sector bailout lacked proper oversight, says Auditor General. *Financial Post.* https://financialpost.com/transportation/canadas-9-billion-auto-sector-bailout-lacked-proper-oversight-says-auditor-general

Palmer, R., Jacobs, M., Laybourn-Langton, L., & Davies, M. (2020). *Recovering better: A green, equitable and resilient recovery from coronavirus.* E3G. https://www.e3g.org/library/briefing-summary-recovering-better-a-green-equitable-and-resilient-recovery

Pantsar, M., & Tynkkynen, O. (2020). *Sustainable recovery measures for the Coronashock.* https://media.sitra.fi/2020/03/30103732/sustainable-recovery-measures-for-the-coronashock.pdf

Patel, R. (2020, May 16). Trudeau non-committal on airline bailout as Air Canada lays off thousands. *CBC News.* https://www.cbc.ca/news/politics/trudeau-non-committal-on-airline-bailout-1.5573228

Pellerin-Carlin, T., Eisl, A., & Magdalinski, E. (2020). *Overcoming COVID-19 crises by building a clean and resilient Europe.* Jacques Delors Energy Centre. https://institutdelors.eu/wp-content/uploads/2020/04/PB-200410-TPC-EN-2.pdf

Pembina Institute. (2020). *Green stimulus: Principles and recommendations for a 2020 economic stimulus package.* Pembina Institute. https://www.pembina.org/pub/green-stimulus-principles-and-recommendations-2020-economic-stimulus-package

Rabson, M. (2020, May 28). Oil industry says coronavirus support hard to access, not coming fast enough. *Global News*. https://globalnews.ca/news/7000134/oil-industry-coronavirus-support/

Redeke, S., & Trautvetter, C. (2020, May 28). *State aid and tax avoidance – the case of Lufthansa*. Tax Justice Network. https://www.taxjustice.net/2020/05/28/state-aid-and-tax-avoidance-the-case-of-lufthansa/

Redonda, A. (2020, May 4). *The day after tomorrow. Designing COVID-19 bailouts for a sustainable recovery.* Council on Economic Policies. https://www.cepweb.org/the-day-after-tomorrow-designing-covid-19-bailouts-for-a-sustainable-recovery/

Rios, B. (2020, June 2). *Worker participation in management can be stabilising factor, expert argues.* EURACTIV. https://www.euractiv.com/section/economy-jobs/news/worker-participation-in-management-can-be-stabilising-factor-expert-argues/

Roberts, T. (2020, May 26). "Time is now," Trudeau told as N.L. leaders rally around clobbered oil industry. *CBC News*. https://www.cbc.ca/news/canada/newfoundland-labrador/oil-ottawa-offshore-1.5585156

Rutherford, D. (2020, May 5). Five ways for governments to green airline bailouts. *Climate Home News*. https://www.climatechangenews.com/2020/05/05/five-ways-governments-green-airline-bailouts/

Science Based Targets. (n.d.). *Tools & resources.* https://sciencebasedtargets.org/resources/

Smart Growth America. (2011). *Recent lessons from the stimulus: Transportation funding and job creation.* https://smartgrowthamerica.org/app/legacy/documents/lessons-from-the-stimulus.pd

Smart Prosperity Institute. (2020, May 19). *The resilient recovery framework.* Smart Prosperity Institute. https://institute.smartprosperity.ca/resilient-recovery-framework

Statistics Canada. (2017, October 25). *Aboriginal peoples in Canada: Key results from the 2016 census.* https://www150.statcan.gc.ca/n1/daily-quotidien/171025/dq171025a-eng.htm

Steffen, B., Egli, F., Pahle, M., & Schmidt, T. S. (2020). Navigating the clean energy transition in the COVID-19 crisis. *Joule*. https://doi.org/10.1016/j.joule.2020.04.011

Steiner, A., & Camera, F. L. (2020, May 14). *Turning the page on the age of oil.* EURACTIV. https://www.euractiv.com/section/development-policy/opinion/turning-the-page-on-the-age-of-oil

Task Force on Climate-related Financial Disclosures. (2019). *Recommendations of the Task Force on Climate-related Financial Disclosures.* https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf

The Investor Agenda. (2020). *A sustainable recovery from the COVID-19 pandemic*. https://theinvestoragenda.org/wp-content/uploads/2020/05/FINAL-THE-INVESTOR-AGENDA_-A-SUSTAINABLE-RECOVERY-FROM-COVID-19-CLEAN_v1.pdf

Torrie, R., Bak, C., & Heaps, T. (2020, May 27). Building back better with an energy innovation fund. *Corporate Knights.* https://www.corporateknights.com/channels/energy/building-back-better-energy-innovation-fund-15905735/

Townsend, S. (2020, June 1). Near 80% of people would personally do as much for climate as they have for Coronavirus. *Forbes.* https://www.forbes.com/sites/solitairetownsend/2020/06/01/near-80-of-people-would-personally-do-as-much-for-climate-as-they-have-for-coronavirus/

Transport Canada. (2020, March 3). *Summary: 2018 Annual Report – Canada's action plan to reduce Greenhouse gas emissions from aviation.* https://www.tc.gc.ca/eng/policy/summary-2018-annual-report-canada-action-plan-reduce-greenhouse-gas-emissions-aviation.html

Truth and Reconciliation Commission of Canada. (2015). *Truth and Reconciliation Commission of Canada: Calls to action.* http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf

Tubiana, L. (2020, May 22). Toward a sustainable recovery. *Project Syndicate*. https://www.project-syndicate.org/onpoint/european-green-deal-sustainable-recovery-after-covid19-laurence-tubiana-and-emmanuel-guerin-2020-05

Ubertalli, O. (2020, May 26). Automobile: Pourquoi Macron n'a pas écouté les écologistes. *Le Point*. https://www.lepoint.fr/automobile/automobile-pourquoi-macron-n-a-pas-ecoute-les-ecologistes-26-05-2020-2377069_646.php

United Nations Environment Programme (UNEP). (2019). *The Emissions Gap Report 2019: A UN Environment Synthesis Report.* https://newclimate.org/2019/11/26/emissions-gap-report-2019/

United Nations. (2020, April 20). *Secretary-General says COVID-19 'wake-up call' demands recovery built on green economy, marking Earth Day 2020.* https://www.un.org/press/en/2020/sgsm20051.doc.htm

World Health Organization. (2020, May 26). *WHO manifesto for a healthy recovery from COVID-19.* https://www.who.int/news-room/feature-stories/detail/who-manifesto-for-a-healthy-recovery-from-covid-19

Woynillowicz, D. (2020, June 4). An auto sector bailout? Green strings attached, please. *Electric Autonomy Canada.* https://electricautonomy.ca/2020/06/04/auto-sector-bailout-green-strings-attached/

Published by the International Institute for Sustainable Development.

Head Office

111 Lombard Avenue, Suite 325
Winnipeg, Manitoba
Canada R3B 0T4

Tel: +1 (204) 958-7700
Website: www.iisd.org
Twitter: @IISD_news

IISD

iisd.org