

A Sustainable Jobs Blueprint

Part II: Putting workers and communities at the
centre of Canada's net-zero energy economy

December 2023



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Pembina Institute & Canadian Labour Congress

December 2023

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About the Pembina Institute

The Pembina Institute is a national non-partisan think tank that advocates for strong, effective policies to support Canada’s clean energy transition. We employ multi-faceted and highly collaborative approaches to change. Producing credible, evidence-based research and analysis, we consult directly with organizations to design and implement clean energy solutions and convene diverse sets of stakeholders to identify and move toward common solutions.

About the Canadian Labour Congress

The Canadian Labour Congress is the largest labour organization in Canada, bringing together dozens of national and international unions, provincial and territorial federations of labour and community-based labour councils to represent more than 3 million workers across the country. Workers affiliated to the CLC work in every region of Canada, and nearly every sector of the economy. The CLC’s leadership, policies and priorities are decided by our affiliates and the workers affiliated to the Congress.

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The Pembina Institute acknowledges that the work we steward and those we serve spans across many Nations. We respectfully acknowledge the space our organization is headquartered in as the traditional and ancestral territories of the Blackfoot Confederacy, comprised of the bands Siksika, Piikani, and Kainai, the Îyârhe Nakoda Nations, including the bands of Goodstoney, Chiniki, and Bearspaw, and the Tsuut'ina Dené. These Lands are also home to the Métis Nation of Alberta — Region 3 whose Peoples have deep relationships with the Land.

The CLC national office is located on the traditional and ancestral land of the Algonquin nation. This land is the unceded and never surrendered territory of the Algonquin Anishinaabe peoples. The CLC's Indigenous Rights and Justice Resource Centre provides information so workers can take action on advancing Indigenous rights and justice in workplaces in every region.

These acknowledgements are some of the beginning steps on a journey of several generations. We share them in the spirit of truth, justice, reconciliation, and to contribute to a more equitable and inclusive future for all of society.

Report Disclaimer

This findings and analysis from this report are meant to apply generally to national, provincial and territorial governments; however, additional analysis would need to be undertaken to adapt our findings and recommendations to the unique and distinct policy environment in Quebec. Similarly, we recognize that this report makes policy recommendations that will require significant coordination between levels of government to achieve, so while this report's recommendations are largely focussed at the federal government, we expect these recommendations to apply to both federal and provincial governments.

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A message from the organizations

Bea Bruske, President of the Canadian Labour Congress



The world must meet its net-zero targets to prevent the worst impacts of climate change. The question is: what does this mean for Canadian workers and what do we do to ensure workers and our economy can thrive? What are the policies that can support workers through a transition, so those most at risk have a pathway to low-carbon work? How can Canada’s economy be truly sustainable by both meeting net-zero targets and also creating good, unionized jobs that build a middle class? How do we actually build an economy that’s sustainable for workers and our planet?

This report is intended to provide a roadmap so Canadians can see a path forward. Of course, the implementation of these policies must come with workers at the table, with a strong voice and a say in their future. In the labour movement we like to say, “nothing about us without us.” This is no different. Given the scale of change it is arguably more important than ever. That means having workers on the Sustainable Jobs Partnership Council, and on any and all subnational bodies working on the issue of sustainable jobs and bargaining in their workplaces.

This is a blueprint for how Canada can unlock the potential of our productive, skilled workers across the economy, how a diversified, net-zero economy can create prosperity and opportunities that are not subject to booms and busts, and how we create good jobs for workers across Canada in a net-zero economy.

We want unions, governments, employers, and bodies like the Sustainable Jobs Secretariat and Partnership Council to use this as a roadmap: here are policies that can support workers, create and protect good jobs, and meet our net-zero targets.

We want this to be available as a backbone to the conversations workers need to lead with each other, with employers and with governments.

Canada’s unions believe Canada stands at a crossroad. People across the country and the globe are experiencing the impacts of climate change in their work and their everyday lives to a degree that’s unprecedented. Our economy must change in order to prevent the worst impacts of climate change, but it must also be positioned to take

advantage of the massive industrial and economic changes that will come with a global shift to net-zero.

Canada can either miss the opportunity and experience stagnation, or position itself as a leader with a plan to train workers, decarbonize industries, support economic diversification, and ensure our workers are leaders in net-zero global economy.

Chris Severson-Baker, Executive Director of the Pembina Institute



Countries around the world are racing to secure their place in a net-zero future, while addressing the human and financial realities of climate change. We cannot deny that the effort it will take to decarbonize the economy and prevent the worst impacts of climate change will cause disruption to the status quo. At the same time, a people-centered energy transition and industrial decarbonization strategies have the potential to create a host of co-benefits that can improve the everyday lives of Canadians — boosting the economy, creating new livelihoods, improving health outcomes, and creating a better future for equity-deserving groups.

The Government of Canada has a responsibility to ensure the country is globally competitive in a world that is moving away from fossil fuels. At a time when the U.S. and Europe are investing heavily in climate action it is essential that Canada puts plans in place to maintain its competitiveness when it comes to vying for the economic opportunities presented in the low-carbon economy.

The investments Canada has already made in clean electricity, clean technology manufacturing and adoption, carbon capture, utilization and storage, and infrastructure will act as a draw for low-carbon industrial investment in Canada. These investments will provide the funding, infrastructure and capacity needed to begin to decarbonize everything from buildings to transportation to energy production, while increasing affordability for Canadians by reducing our reliance on price-volatile fossil fuels and increasing the efficiency of our electrical grid.

But more is needed to ensure that Canada’s workers and communities thrive. Canada needs a plan to build decent, stable jobs in these new and transitioning sectors. It needs to ensure workers and communities have the resources and supports they need to take advantage of these new opportunities. Most importantly workers need to know what

jobs and sectors will become available in a low-carbon economy that will be here for decades to come.

This means following through on key pieces of climate legislation, including Clean Electricity Regulations and the cap on emissions from the oil and gas sector, and continuing to maintain a strong carbon pricing system. These and other climate policies will give industry the certainty they need to commit to decarbonization. Canada must move the Sustainable Jobs Act into legislation and give Canadians a voice in determining their path in this new economy. This report provides a much-needed blueprint for how the Government of Canada can protect workers while ensuring the net-zero economy has the skilled labour it needs to thrive and compete in a rapidly changing world. We invite Canada to rise to the occasion.

Executive summary

In the fall of 2022, the Canadian Labour Congress and the Pembina Institute came together, each representing key labour and environmental perspectives, to help the Government of Canada chart a path towards a sustainable jobs approach that supports worker and communities. The result of this collaborative effort is the Sustainable Jobs Blueprint two-part report series.

This second and final report is preceded by *A Sustainable Jobs Blueprint - Part I: Governance recommendations to support Canada's clean energy workforce and economy*. Part I outlined the steps it will take to develop a robust governance framework that brings industry, workers, and communities together, to steer policy and planning decisions and create a thriving energy workforce in the near and long term. Part II highlights the actions and investments that must follow.

These reports are informed by a multi-pronged research approach, bringing together the interests and perspectives of workers, modelled outcomes of the pathway to net-zero, international best practices, and discussion with experts.

The advice in this report broadly applies not only to the Government of Canada, but to provinces, territories, the Sustainable Jobs Partnership Council and Sustainable Jobs Secretariat, and others who influence policy decisions. Meeting climate objectives, decarbonizing industries, supporting workers and communities, and upholding labour standards requires all hands on deck.

Developing the Blueprint

The goal of the Blueprint series was to learn about workers' concerns and priorities, identify possible policies that could address their concerns, think about how these policies could be developed and implemented effectively, and investigate what kind of effect these policies would have on economic and labour outcomes.

These goals were achieved over the past year by:

- Conducting a scan of best practices of labour and economic policy interventions in other countries with similar economies
- Undertaking interviews, focus groups and a survey with workers in potentially affected industries such as oil and gas and manufacturing
- Analyzing labour market impacts associated with pathways to net-zero emissions by 2050 both with and without additional policy supports

- Developing recommendations that have the potential to harness the upsides and reduce disruption of the path to net-zero, taking expert advice into account.

Findings

A modelling exercise undertaken mapped two diverging trajectories to net-zero by 2050: one with additional supports for workers, and one without. Both scenarios showed that the path to net-zero will result in a total of 2 million direct and indirect clean economy jobs in 2050. When policies that other jurisdictions have already implemented, like enhanced Employment Insurance (EI), training subsidies, and investments in affected regions were applied, Canada's forecasted GDP increased by \$7 billion compared to a scenario where these interventions were not available. Likewise, training and financial supports lowered unemployment and increased wages in the most affected sections of the economy.

The model suggests that a modest set of interventions prevents higher unemployment among exposed workers, greater regional disparities, and lower GDP. Interventions can keep workers in their home provinces and ensure they continue to contribute to their local economies. This modelling exercise shows us that a plan is needed — and even a basic enhanced plan can help. In addition to the modelled interventions, decision-makers should look to the full suite of recommendations in this report to maximize the benefits along the path to net-zero.

Opinion research with workers in exposed industries indicates that they felt more positively about the path to net-zero knowing there is a plan in place to support them. Workers showed clear support for labour and economic policies designed to help them through transition. They want to see the things they've worked hard for, like incomes and pension, protected; they want to stay in their communities; and they want their union at the table with decision-makers.

What is the sustainable jobs challenge?

The sustainable jobs challenge is, simultaneously, a workforce development challenge, a regional development challenge, a social security challenge, an industrial policy challenge, a labour protections challenge, and a communications and engagement challenge. Advancing these elements together requires taking a holistic, systems-focused approach with workers firmly at the centre. The recommendations in this report aim to identify potential solutions to these challenges.

A number of key takeaways can be derived from this report that amplify the findings above. Canada's training and skills plans must be bolstered and aligned with net-zero economic goals. A sustainable jobs workforce development approach must be integrated into plans for the environment and economy, and provinces and territories are key in ensuring this happens in a regionally relevant manner. It is also crucial that at a minimum, additional targeted social security measures are put in place to support workers during periods of change and transition. Ensuring Canada's safety net is responsive to modern realities is a fundamental responsibility of government.

The resources required to transition Canada's energy systems to align with global net-zero realities are not insignificant. To make the most out of government spending on transition, other benefits should be sought after that uplift equity-deserving groups and make communities more resilient to change. At the same time, private sector actors can be a part of the solution – whether that involves retraining employees on the job or achieving key labour standards on major projects.

Advice to the Government of Canada

The recommendations and actions to consider outlined in this Sustainable Jobs Blueprint together create a mutually reinforcing sustainable jobs policy approach that puts in place foundational actions to support workers and help optimize the economic outcomes of the shift to net-zero.

Worker-focused recommendations

1. Invest in skills and training capacity to give workers the tools to succeed

- Review, streamline and scale up existing skills training programs.
- Provide capacity funding for union training centres and accredited not-for-profit training programs.
- Establish a funding stream for provinces and territories to supplement skills and education programming.
- Incentivize on-the-job and employer-delivered training through a cost-sharing program.
- Guide youth towards sustainable jobs opportunities through educational resources and a tuition credit program.
- Support newcomers to participate in the workforce by improving credential recognition.
- Implement the Sustainable Jobs Training Centre to serve as a central research, analysis, and resource hub.

2. Provide income security and programs that help workers find new jobs or retire early

- Improve the responsiveness of Employment Insurance to enable workers to retrain while receiving income support.
- Extend eligibility of Work-Sharing agreements to industries experiencing long-term decline.
- Ensure the Sustainable Jobs Secretariat is equipped to direct workers to programs and services.
- Protect worker pensions when industries become insolvent.
- Create a pension bridge for workers nearing retirement age.
- Provide a worker relocation assistance fund.

3. Enable a framework to uphold good job standards in the clean economy

- Make key amendments to labour codes in support of unions and worker organizing.

4. Engage with workers about their futures

- Develop awareness and dialogue campaigns to inform and engage with workers about the energy transition.

Economy-focused recommendations

1. Invest in regions to build resilience in a net-zero economy

- Scale up the Futures Fund to support regional net-zero action plans and advance regional industrial policy priorities.
- Establish an economic diversification transfer for affected regions.
- Create an Indigenous loan guarantee program as part of a National Benefits-Sharing Framework.

2. Develop a net-zero industrial policy that creates conditions for thriving industries

- Advance effective regulations in a timely manner to foster greater market certainty.
- Create provincial and territorial net-zero industrial policy tables with sectoral working groups.
- Expand labour and community conditions to all sources of net-zero public financing.
- Continue to explore a Border Carbon Adjustment to uplift clean industry.
- Adapt government procurement policy to favour ‘clean’ products and prioritize suppliers from affected communities.

- Require Community Benefit Agreements on public infrastructure and development projects.

3. Leverage private capital to support sustainable jobs

- Establish an excess profit mechanism for emissions-intensive industries.
- Increase the shareholder buy-back tax.

Together, the advice in this Blueprint report forms a worker-centred transition policy framework that the Government of Canada can use to develop the 2025 Sustainable Jobs Action Plan and that the Sustainable Jobs Secretariat can use to undertake deeper analysis and to coordinate implementation; the Sustainable Jobs Partnership Council can continue to consult on and add to this Blueprint's list of policy areas.

1. Introduction

There are 26 years remaining to 2050. The focus of energy experts and government officials to date has been on the technical solutions needed to achieve deep emissions reductions and transform energy systems. What is becoming increasingly clear is that a shift of this magnitude cannot happen without the participation of the workers and communities that drive Canada's economic engine and who will drive its decarbonization efforts. Engaging Canadian workers and communities along the path to net-zero requires a broad, systems-focused, and holistic approach.

At the time of writing, Canada does not have a cohesive economic strategy to meet net-zero by 2050. Investments in the November 2023 Fall Economic Statement released shortly before this report fall short of the level of what is needed to advance the energy transition in line to keep pace with global leaders.¹ While Canada has policies, targets and legislation oriented towards emissions reductions, there is no concurrent plan for what happens to workers.

Reducing emissions without a plan for workers leaves workers and industries with unanswered questions. The Sustainable Jobs Blueprint series co-developed by the Canadian Labour Congress (CLC) and the Pembina Institute aims to offer a pathway to ensure industrial change and decarbonization is informed by social dialogue, focused on creating new, decent jobs and ensuring workers have a clear path forward.

In our first report, *A Sustainable Jobs Blueprint - Part I: Governance recommendations to support Canada's clean energy workforce and economy*, we examined the shift to net-zero based on current global trends.² In short, the world is moving quickly toward a new net-zero paradigm. Much like other major economic shifts, the choices governments and industry make can leave workers and communities further behind or can create new opportunities. We stressed the importance of a robust governance framework that puts in place the right planning, accountability, and inclusive decision-making systems that bring workers to the table.

¹ Hadrian Mertins-Kirkwood, "Fiscal update more than a missed opportunity for climate action," *National Observer*, November 22, 2023. <https://www.nationalobserver.com/2023/11/22/opinion/fiscal-update-more-missed-opportunity-climate-action>

² Pembina Institute and Canadian Labour Congress, *A Sustainable Jobs Blueprint: Part I: Governance recommendations to support Canada's clean energy workforce and economy (2023)*. <https://www.pembina.org/pub/sustainable-jobs-blueprint>

This second report offers advice on the tactics the federal government can use as it makes investments and develops programs, with the goal of better and more fair outcomes for present and future workers, communities, and Canada as a whole. Both reports recommend that the Government of Canada demonstrate its commitment and ambition to move to net-zero in line with the rest of the world while keeping workers’ interests front and centre. This report recommends adapting existing policies as well as examining new opportunities to strengthen economic and climate policies by supporting workers and advancing multiple societal objectives. While the recommendations in this report are directed toward the federal government, provinces and territories also play a crucial role.

“Over 82 per cent of Albertans say the provincial government should take an active role in planning for future job opportunities for energy workers.”

— Recent polling by the Pembina Institute³

At the time of writing, *Bill C50: An Act respecting accountability, transparency and engagement to support the creation of sustainable jobs for workers and economic growth in a net-zero economy*, known as the Canadian Sustainable Jobs Act, is making its way through parliament. The Act will enable a Sustainable Jobs Partnership Council and Secretariat, which will guide and advise various federal ministries to “[establish] an accountability, transparency and engagement framework to facilitate and promote economic growth, the creation of sustainable jobs and support for workers and communities in Canada in the shift to a net-zero economy.” The passing of the Sustainable Jobs Act would set the foundation for more purposeful action on sustainable jobs, and thus, many of the recommendations in this report implicate the governance bodies proposed through the Act.

1.1 Why workers need a blueprint

Extreme weather, increased demand for low-carbon supply chains and products, changing commodity prices and new technology are shaping the labour market. Workers know that jobs have evolved in response to government policies and global forces for

³ Laurence Miall, *Polling Results: Oil and Gas, Jobs and Targets* (Pembina Institute, 2023). <https://www.pembina.org/pub/polling-results-oil-and-gas-jobs-and-targets>

generations. They know that climate change is already affecting work and will change the way current and future generations experience the world.

Workers are also aware of how quickly changes can unfold in the natural resources and energy sectors. Much of Canada's economic activity in these sectors is driven by the export of goods to trade partners. Dependence on global markets and external demand for goods means that the energy and resource sector are subject to extreme volatility when shifts in the global market occur. For example, projected declines in global demand for oil beginning in 2030 will likely result in a more globally competitive oil market where the least costly, least carbon-intensive producers will remain most successful.⁴ Given that Canada produces some of the most expensive, emissions intensive oil when compared against leading world producers, we can expect changes to occur in the sector due to decreased demand if it does not adapt. It is in the best interest of federal, provincial, and territorial governments, particularly those where economic activity is driven by fossil fuels, to put a plan in place for workers and the economy.

The Canadian Labour Congress recognizes that climate change and industrial transition has become an ongoing concern for workers, especially in the last decade. Workers ask their unions: What will a changing climate mean for my job and workplace? What will the policy actions to *prevent* climate change mean for my work? Will my job still exist in five years? Will my employer adapt to meet climate and net-zero targets? What skills will I need to keep doing my job? Are there new opportunities to use my skills, or new opportunities for my region to see growth in good jobs?

While workers and their unions are supportive of climate action,⁵ many workers have already experienced the impact of booms, busts, and transitions in fisheries, forestry, manufacturing, coal, and they and their unions remember the hardships that accompanied change. Governments need to recognize that previous economic transitions have not been smooth, and many communities and workers have felt left behind.

⁴ Janetta McKenzie, Scott MacDougall, and Eyab Al-Aini, *Survival of the Cleanest: Assessing the cost and carbon competitiveness of Canada's oil* (Pembina Institute, 2023), 3.

⁵ Natasha Bulowski, "Canada's largest labour organization adopts plan for equitable energy transition" *National Observer*, May 10, 2023. <https://www.nationalobserver.com/2023/05/10/news/canadian-labour-congress-climate-plan-just-transition>

“I’ve seen wonderful PowerPoints from many different groups, and they are great at giving presentations. At the end of the day, it has made zero difference to us so far.”

— Electrical worker, Saskatchewan

The piecemeal, reactive worker support programs of the past may have aided some workers, but these programs are not enough to leave workers with a sense of justice. This approach ultimately fails to mitigate the larger systems-level impacts that unfold because of industry decline.

The CLC’s ongoing work with affiliates has shown that workers want a say in their future. They need to hear from their unions that worker priorities are taken seriously and being delivered on. Democratically elected unions will be an essential, two-way communication channel between workers and policymakers. Labour must be represented at decision-making tables to ensure policy responds to workers’ needs articulated through social dialogue. It is also critical that governments turn commitments into action and show workers they have a plan.

1.2 Measuring success

In 2015 Canada signed the Paris Agreement committing countries to take “into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities” — and for nearly a decade, Canada’s unions have been asking the government for a plan to do that.

That same year, the International Labour Organization, of which Canada is a member, published its guidelines for a just transition, which was developed with workers, employers and governments at the table, laying out ways in which decent work, social dialogue and sustainable development are essential to help countries meet environmental challenges. These two milestones set out goals that Canada must continually strive toward. A successful sustainable jobs approach incorporates additional determinants for success outlined in Table 1.

Table 1. Determinants of a successful Sustainable Jobs approach

Labour demands	Markers for success
Workers have a seat at the decision-making table	<ul style="list-style-type: none"> Workers have a strong voice on the Sustainable Jobs Partnership Council. Workers have a strong voice in regional economic and workforce development planning.
Sustainable jobs meet international “decent work” standards⁶	<ul style="list-style-type: none"> Decent work is a term that is defined by the International Labour Organization and, is upheld by four pillars: <ul style="list-style-type: none"> Job creation Social protection (i.e., social security) Labour rights Social dialogue (e.g., bargaining, tripartite discussion) In practice this means decent work is: fairly paid, available, safe, equitable, collectively bargained, and supported by a public and workplace social safety net.
Transition results in no net job loss	<ul style="list-style-type: none"> Regional employment and economic opportunities are stable. More jobs are created than lost, and workers are connected and trained for new job opportunities.
Workers have clear pathways	<ul style="list-style-type: none"> Workers understand occupations they can move to based on skillsets and experience. Workers understand training options available to them. Workers have resources and information at their disposal. Workers understand what industries and businesses will grow in their community/region that could offer employment options.
Job quality does not decrease	<ul style="list-style-type: none"> Workers are able to find new jobs in the places they already live. When possible, workers are able to stay with the same employer. Workers receive comparable wages, pensions, benefits, and non-monetary terms such as scheduling, and layoff and call-back provisions.
Plans adapt to changing circumstances	<ul style="list-style-type: none"> Workers understand what government decisions mean for them. Workers understand government vision for the short, medium, and long term.

1.3 Opportunities in a net-zero economy

While the imperative to decarbonize the economy and achieve net-zero emissions by 2050 is a driver of change in the workforce and could indirectly result in job losses, it is

⁶ International Labour Organization, “Decent work.” <https://www.ilo.org/global/topics/decent-work/lang-en/index.htm>

mostly a driver of job creation and opportunity.^{7, 8, 9} The International Energy Association forecasts as many as 30 million new jobs in clean energy could be created globally in a net-zero scenario.¹⁰ High-level figures are far less important to workers than addressing the question of “what does this mean for me?” It is important that more details are made available about what specific occupations will be in demand, and where, and what Canada will do to uphold job quality.

We know from existing research that the transition to a clean economy will create jobs in EV manufacturing, heat-pump installation, oil and gas decarbonization and methane abatement, decarbonizing heavy industry as well as adaptation.^{11, 12, 13} The modelling presented in Section 2.3 highlights several different sectors that are poised for growth in a net-zero scenario. According to the modelling, in 2050 Canada will see significantly more jobs in the clean economy compared to the oil and gas sector. This includes 723,000 jobs in electric vehicles, 352,000 in clean buildings, and 174,000 in hydrogen.

Regional industrial planning can bring future opportunities even more into focus. The Alberta Federation of Labour highlights the potential opportunities that Alberta could realize in hydrocarbon and CO₂-based manufacturing, decarbonizing the oil and gas sector (and cleaning up environmental liabilities), capitalizing on the electric power sector, investing in hydrogen and sustainable fuels, electric transportation and supply chains, retrofitting buildings, and establishing a northern economic corridor.¹⁴

Potential jobs created are not, by default, sustainable jobs meeting the job quality definitions set out in the 2023 federal interim Sustainable Jobs Plan. For example, while

⁷ Ian Hussey, *No Worker Left Behind: A job creation strategy for energy transition in Alberta* (Parkland Institute, 2023). https://www.parklandinstitute.ca/no_worker_left_behind

⁸ Clean Energy Canada, *The New Reality* (2021). <https://cleanenergycanada.org/report/the-new-reality/>

⁹ Pembina Institute, *Alberta’s Roadmap to the New Energy Economy* (2023). <https://www.pembina.org/pub/albertas-roadmap-new-energy-economy>

¹⁰ International Energy Agency, *World Energy Outlook* (2023). <https://www.iea.org/reports/world-energy-outlook-2023/secure-and-people-centred-energy-transitions>

¹¹ Vanessa Sun, *Just Transition: Best practices for a just transition in Vancouver* (Vancouver Economic Commission, 2021). <https://vancouvereconomic.com/research/best-practices-for-a-just-transition-in-vancouver/>

¹² Cedric Smith and Sarah Winstanley, *Net-Zero Skills: What will Canada need for the coming energy transition?* (Pembina Institute, 2022). <https://www.pembina.org/pub/net-zero-skills>

¹³ Future Skills Centre, *Green Occupation Pathways: From vulnerable jobs to rapid growth careers* (2022). <https://fsc-ccf.ca/research-insights-key-themes/skills-for-a-net-zero-economy/>

¹⁴ Alberta Federation of Labour, *Skate to Where the Puck is Going: Re-imagining Alberta’s energy future* (2022). https://afl.org/groundbreaking_report_skate/

many renewable generation jobs are already good jobs with the protection of a union, large-scale solar projects in some jurisdictions use non-qualified, non-journeyperson workers. Such workers might be exposed to hazards they may not be fully trained to understand and control. Across all opportunities in potential growth sectors, including those highlighted in this section, actions must be taken to ensure decent work standards are upheld to ensure jobs are truly sustainable.

Electrification

Growth in electrification and grid decarbonization is expected to create a massive number of jobs. The proposed Clean Electricity Regulations are meant to drive decarbonization of Canada's electricity grid, and over time, substantial grid expansion is expected to meet the electricity demands of 2050. Workers are needed to support power generation, installation, and construction of transmission infrastructure, and to work in utilities and systems operations; we expect increased demand for electricians and other electrical workers.¹⁵

Buildings

A major part of the energy transition will also involve limiting the demand for fossil fuels to heat and cool buildings through building retrofits and new building codes.¹⁶ Canada's building sector represents the third largest source of greenhouse gas emissions, and reducing emissions at-scale will involve waves of fuel switching from fossil fuel heating and cooling systems to clean electricity, as well as limiting total energy use by making buildings more energy efficient. Building retrofits could be another major job creator for workers in construction, manufacturing, wholesale trade, professional and business services, utilities and more. Not only can building retrofits help reduce emissions and create decent jobs, retrofits can simultaneously help reduce household spending and provide added protection from extreme weather events – representing both a climate mitigation and adaptation solution.¹⁷ Pembina's research shows that strategic investments in building retrofits could create up to 200,000 lasting,

¹⁵ Canadian Climate Institute, *The Big Switch* (2022). <https://climateinstitute.ca/reports/big-switch/>

¹⁶ Tyee Bridge and Richard Gilbert, *Jobs for Tomorrow: Canada's building trades and net-zero emissions* (Columbia Institute, 2017). <https://columbiainstitute.eco/research/jobs-for-tomorrow-canadas-building-trades-and-net-zero-emissions/>

¹⁷ Kevin Lockhart and Sharane Simon, *Building for Tomorrow: Making Canada's new housing supply high performance and climate ready* (Efficiency Canada, 2023). <https://www.energycanada.org/building-codes/housing-climate-report/>

well-paid jobs over the next 20 years and generate more than \$48 billion in economic development each year.¹⁸

Critical minerals

Canada also has the resources, especially critical mineral deposits, needed for key net-zero technologies. Canada's Critical Minerals Strategy identifies 31 critical minerals needed for domestic manufacturing and Canadian supply chains, and six in particular (lithium, graphite, nickel, cobalt, copper, and rare earth elements) have distinct potential to spur Canadian economic growth.¹⁹ The first lithium extraction project in Alberta began in September 2023, putting Canada on the map as a supplier of this light metal as a key component of electric vehicle batteries.²⁰ Electric vehicles just hit 10% of new cars purchased²¹ and they are anticipated to increase their share of the market, especially as vehicle sales mandates come into effect.

The critical minerals sector could create advantages for northern communities who already have infrastructure and skills to support remote resource extraction. Mining in Canada has traditionally created good jobs, and work is often unionized. Critical mineral projects could also facilitate greater participation of Indigenous peoples in the resource economy to derive economic benefits through full or partial ownership of extraction projects on their traditional territories.²² Many future mining sites are located on traditional Indigenous lands, and according to the Canadian Chamber of Commerce and Canadian Council for Aboriginal Business, meaningful partnerships with Indigenous

¹⁸ Madi Kennedy, Tom-Pierre Frappé-Sénéclauze, *Canada's Renovation Wave: A plan for jobs and climate* (Pembina Institute, 2021), 5.

¹⁹ Natural Resources Canada, *The Canadian Critical Minerals Strategy: From exploration to recycling* (2022). <https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadian-critical-minerals-strategy.html>

²⁰ Amanda Stephenson, "Alberta enters global critical minerals race with opening of first lithium extraction pilot project," *Financial Post*, September 7, 2023. <https://financialpost.com/commodities/mining/alberta-critical-minerals-lithium-extraction-pilot-project>

²¹ Brian Banks, "Zero-emission vehicles hit 10.5 per cent market share in Canada in Q2, an all-time high," *Electric Autonomy*, August 25, 2023. <https://electricautonomy.ca/2023/08/25/zev-market-share-canada-q2/>

²² Suzanne von der Porten, Saga Williams, and Jesse McCormick, *Critical Minerals Roundtables: Summary of participant discussions and findings* (First Nations Major Projects Coalition, 2023). https://fnmpc.ca/wp-content/uploads/FNMPC_Critical_RT_Overview_06072023_final.pdf

people through the entire life cycle of mining projects can strengthen these supply chains and foster holistic Indigenous participation.²³

Industrial decarbonization

Industrial decarbonization can both create new jobs and preserve decent jobs in existing industries. Compared to other G7 countries, Canada is presently lagging in industrial decarbonization,²⁴ suggesting there is significant opportunity to accelerate progress on this front, particularly in chemicals, steel, cement, and aluminum. These industries have facilities with a strong union presence, access to increasingly mature technologies, and thus, greater capacity to decarbonize. Industrial decarbonization has high potential to maintain and protect jobs of this nature. The simplest way for a worker to move into a sustainable job is for their employer to decarbonize operations and equip the existing workforce with any additional skills needed. This allows workers to maintain their income, stay in their communities, keep their benefits and pensions, and overall reduce disruptions to their lives.

1.4 Research approach

To develop this report, Pembina and the CLC undertook comparative policy analysis in addition to qualitative and quantitative research with workers, and worked with Navius Research to model the effects of net-zero pathways on the labour market and economy. The result is a ‘Blueprint’ or a guide that the Government of Canada, the Sustainable Jobs Partnership Council, and the Sustainable Jobs Secretariat can use to inform ongoing social dialogue and the further development and implementation of worker-centred policies.

This report cannot replace the social dialogue that will be essential to building and implementing robust policies to support workers through the necessary and inevitable changes they will experience over the coming years. Rather, this report is meant to provide social partners with a set of policy options that together have the potential to

²³ Andrew Spencer and Matthew Foss, “Critical Minerals Can Create Transformative Economic Opportunities for Indigenous Communities — If We Do It Right,” *Canadian Chamber of Commerce*, November 15, 2023. <https://chamber.ca/critical-minerals-can-create-transformative-economic-opportunities-for-indigenous-communities-if-we-do-it-right/>

²⁴ Felix Whitton, Ollie Sheldrick, Stefan Pauer and Rachel Doran, *Decarbonizing Industry in Canada and the G7* (Clean Energy Canada, 2023). <https://cleanenergycanada.org/report/decarbonizing-industry-in-canada-and-the-g7/>

advance a fair transition to net-zero and support current and future workers and communities along the way.

When workers were interviewed and surveyed for this research, they expressed that they felt more confident about pathways to net-zero when they knew that policy solutions were developed or bargained with their union and plans were in place to support them, their families and their communities. Therefore, the recommendations developed are also meant to deliver policies that meet the needs of workers, and are supported by ongoing two-way communications that equips workers and communities with the timely information they need and deserve.

To begin, we asked ourselves the following research questions to better understand worker perspectives, regional impacts, and opportunities to come up with the best solutions for workers:

1. What does the transition to net-zero mean for workers, and what will make them feel more confident about the future?
2. Where do we expect to see the greatest changes between now and 2050?
3. What supports do workers and communities need to help redefine their place in a net-zero economy and workforce?
4. What is the role for the Government of Canada?

1.5 Approach to developing advice

To date, the Government of Canada has stated its intentions to advance a sustainable jobs approach that keeps Canada's economy competitive, generates prosperity, lowers emissions, and creates new jobs for workers. The interim Sustainable Jobs Plan and the proposed Sustainable Jobs Act announced in 2023 are steps toward turning commitments into a reality. The research in this report identifies opportunities to build upon and strengthen the current approach, and work toward new policy and regulatory measures, programs, and investments that must be part of the soon-to-be legislated five-year Sustainable Jobs Action Plans — including 2025 and 2030, and every annual budget cycle in between.

The recommendations and actions to consider in this report are centred around four main worker-focused actions and three economy-focused actions. The advice is broad ranging and ambitious: it aims to extend decent work standards into the clean economy, support transitioning and displaced workers, clarify roles and responsibilities of

industry, enhance community resiliency, and connect equity-deserving groups to new job and investment opportunities.

Proactive plans and responsive investments, advanced in tandem, create a well-coordinated and comprehensive plan that will position Canadian workers and communities for success. A piecemeal approach runs the risk that Canada will lose ground in the race to net-zero, communities will be stranded, and the decent work agenda will lose to the gig economy where short-term contracts, freelance, and other temporary work arrangements dominate.

Our work is guided by enabling factors identified in [Part I of the Blueprint](#) and informed by modelling and qualitative research with workers to centre workers in policy.

Table 2. Enabling factors of the Sustainable Jobs Governance framework

Enabling Factors	Description
Adequate resourcing	The financial resources needed to accompany this shift are significant and must be at a scale to strengthen a workforce that fuels Canada's new energy economy.
Alignment with net-zero	Plans to transition Canada's workforce to sustainable jobs must ensure that jobs are, in fact, aligned with a net-zero economy.
Cohesive strategy and vision	A sustainable jobs plan must be a part of the Government of Canada's broader climate and economic strategies.
Regional collaboration	Transitions unfold at the regional and local level; a nation-wide sustainable jobs plan should reflect this diversity.
Social dialogue	Social dialogue — the process of formal and informal negotiation between social partners: workers, employers and governments — must be used in good faith to ensure policies are pragmatic and realistic, and will create sustainable prosperity for workers, their communities and Canada's economy.
Worker buy-in	The elements listed above must ultimately be communicated through trusted channels, so workers can have the confidence that these initiatives will ultimately meet their needs.

1.6 Outline for the report

This report begins by outlining the approach to and findings from qualitative and quantitative research. This includes findings from a model that explores the effects of government interventions key outcomes in a net-zero economy. Quotes throughout the

report are from real unionized workers, and were captured during interviews and focus groups.

It then offers recommendations targeted at both workers, focusing on skills and training, income security, engagement and labour rights, and economic- focused actions to optimize and leverage the energy transition for the good of workers and communities. This includes recommendations related to regional development, net-zero industrial policy and leveraging private capital. Examples are also provided throughout to highlight similar initiatives undertaken regionally in Canada or in other jurisdictions. These examples are meant to inspire decision-makers and build confidence in the potential to translate advice into action. Together, these worker and economic focused recommendations make up our Blueprint.

2. Research approach and findings

For this report, Pembina and the CLC undertook comparative policy analysis in addition to qualitative and quantitative research with workers, and modelled what net-zero pathways would mean for the labour market and economy. These activities uncovered solutions that addressed potential Canada-wide impacts and had proven results in other jurisdictions, while also being aligned with workers' priorities and values. The research approach and main findings are outlined in this section. The policy recommendations in this report are informed by experts in industry, labour and government. This report will elaborate on those recommendations in Sections 3 and 4.

2.1 Comparative policy analysis

Some countries are ahead of Canada on the path to net-zero. Their experiences provide a preview of how different supports can be used to mitigate adverse impacts. While we recognize that these countries have different geographies, economies, labour policy frameworks and political dynamics, key themes emerged among these highly developed, federal or confederal democracies undergoing industrial transition. A comparative policy analysis of just transition approaches in Scotland, Germany, the U.S., Spain, New Zealand, and Denmark found that actions fell into three policy buckets, each representing a different level of focus, described in Table 3.

Table 3. Policy buckets identified through comparative policy analysis

Policy Bucket	Description
Economic development	Focuses on economic interventions — on a national, regional, or local scale — and includes funding, project support, and specific measures to build up and/or diversify economies to become resilient to change and evolve alongside changing global markets. A strong and diverse economy is an economy that's good for workers.
Workforce development	Focuses on the workforce and the skills, education, and job-seeking support needed to enter into, move between, or stay in sustainable careers.

Income security and supports	Focus on the needs of individuals — specifically enabling workers to stay afloat, meet financial obligations, and care for themselves and their families during periods of disruption and unemployment.
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Together, these three policy buckets, when developed through social dialogue, symbolize the basic elements of sustainable jobs plans. Across the six countries studied, there are strong examples of actions that fall into the above areas.

Key findings

- Other countries have taken bolder steps than Canada in the areas of economic and workforce development when it comes to transition planning.
- Many countries created targeted skills and retirement programs for workers impacted by industrial shifts, making such programs accessible and purpose-driven.
- While other countries lack specialized income supports for workers, many of these countries have better baseline social security programs in place.

Economic development

In response to downturn, transition and industry phase-out, the first common policy solution was government making **net-zero energy infrastructure investments in affected regions**. The most successful examples led to high-quality job creation, repurposed existing energy infrastructure and knowledge, and involved expediting approval processes for clean energy projects. For example, Denmark’s Green Future Fund was created as a long-term transition funding source to help develop and deploy clean energy technology for communities, while creating jobs for affected workers.²⁵ This program leveraged the transferable knowledge and expertise from incumbent fossil fuel-based energy sector to evolve fossil-fuel regions into a thriving offshore wind industry.

Another common solution involved **regional development assessments, strategies, and agreements** between national and sub-national governments. These strategies helped regions develop short-, medium- and long-term visions for how affected economies would evolve in response to transition. For example, the Spanish

²⁵ EKF, “Denmark’s green future fund is in operation: EKF has the first projects in line,” 2020. <https://www.ekf.dk/en/about-ekf/ekf-s-organisation/news/2020/denmark-s-green-future-fund-is-in-operation>

government established a co-governance body (Just Transition Institute) made up of autonomous communities and the Spanish government to develop 13 Just Transition Agreements across seven regions. These Agreements put regional action plans in place to foster economic growth, diversification and employment in regions impacted by the phase-out of coal in Spain by identifying vulnerability status, undertaking full economic impact assessment, and determining how best to allocate resources.

Another important economic development solution involved providing **funds directly to affected communities to support holistic growth**. These investments were allocated to support place-based economic development plans that helped not only bolster the economy, but support other elements of community vitality and resilience such as: delivery of essential public services such as healthcare and education; support for entrepreneurs, small and medium-sized enterprises, and business communities; funding for arts and culture, improving community health and beautification; supporting outdoor recreation and tourism; and other projects aligned with community values and priorities. For example, Scotland's Coalfields Regeneration Trust provided social support to former mining communities by allocating funds toward social enterprises, community service organizations, workforce development and training programs.

Other countries used **strategic incentives with strings attached** to achieve positive outcomes for transitioning communities. For example, the United States' Inflation Reduction Act created an Energy Communities Tax Credit, which provides an additional 10% credit to production or investment tax credits for coal, oil and gas communities that would likely see negative economic impacts related to the energy transition. This credit recognizes the need to maintain the economic health of communities, create opportunities in those communities for workers and support the creation of good, union jobs.

Workforce development

Another key element of transition management includes training, education, skill building and re-skilling, as well as resources and services to help with job searches. These kinds of policies fall under the broad umbrella of workforce development — targeting workers who have become displaced and are seeking new opportunities, workers currently in the labour market looking to enter sustainable jobs fields, and new workers entering the Canadian workforce for the first time.

Countries promoted workforce development as part of broader transition management strategies. Governments established **training and skills pathways for displaced**

workers, taking the form of top-ups to existing training and apprenticeship programs, subsidies to employers to cover retraining costs, and establishment of new training academies. Policies such as the Justice 40 Initiative in the U.S. Inflation Reduction Act used this opportunity to advance equity goals as well as broader employment opportunities.²⁶

We also found a number of instances where **transition and career advisory services and jobs matchmaking programs** were put in place to conduct skills assessments of workforce in advance of layoffs to help workers identify current skills, interests and potential re-employment pathways.

Income security

Targeted social security measures for transition such as employment insurance were the least common new support in the countries studied. In most regions, countries relied on their **existing social safety net and welfare programs**, typically funded through income tax deductions feeding into a wider pot of funding that supports unemployed persons or persons looking for work. Workers typically receive a percentage of their wage over a defined period of weeks as they transition from one job to another. Rarely were purpose-built programs put in place to respond to transition. However, some countries had more generous programs, such as New Zealand’s Social Unemployment Insurance allowing workers to retain 80% of their income as they transition into new employment. Denmark offers not only robust social and employment supports, but also “flexicurity” that provides income security for workers and flexibility for employers.²⁷

For workers nearing the end of their career, some countries established transition-specific **early retirement programs** — or a version of income support — that expedites the rate of attrition. For example, Germany offered an early retirement payment to employees aged 58 and older who lost their jobs due to the retirement of coal power plants.

²⁶ BlueGreen Alliance, “9 Million Jobs from Climate Action: the Inflation Reduction Act.” <https://www.bluegreenalliance.org/site/9-million-good-jobs-from-climate-action-the-inflation-reduction-act/>

²⁷ Danish Agency for Labour Market and Recruitment, “Flexicurity.” <https://www.star.dk/en/about-the-danish-agency-for-labour-market-and-recruitment/flexicurity/>

2.2 Surveying and speaking with workers

Between the fall of 2022 and summer of 2023, Pembina and the CLC worked with Callosum Market Research Agency to hold interviews, focus groups and survey with unionized workers from across Canada who worked in industries vulnerable to the impacts of global energy market changes. In total, we interviewed 45 workers through one-on-one discussions and focus groups and captured the views of 560 workers through a survey. Workers were members of the International Brotherhood of Electrical Workers (IBEW), International Union of Operating Engineers (IUOE), United Food and Commercial Workers (UFCW), Unifor, or United Steelworkers (USW). The aim of the research was to identify:

- 1) What do Canadian workers think of the pathway to net-zero?
- 2) How could this transition be made ‘just’ in their eyes?
- 3) How compelling are each of the proposed policy ideas, and which have the most potential overall?

“At the end of the day, the people who are most affected by it should have a voice, right? And that’s workers.”

— Digger operator, Alberta

Workers were asked about perceptions and level of support for various policies, including policies related to pensions, employment insurance, training, investments, and worker involvement.

Key findings

- ➔ All policy ideas — pension protection and bridging, employment insurance, training, worker involvement in policy development, and investments to create jobs — were ranked favorably by surveyed workers.
- ➔ Workers felt more positively about pathways to net-zero knowing that these kinds of policies could be applied.
- ➔ To make the transition to net-zero fair, most workers want to have their pensions and income protected, their training guaranteed, to stay in the places they already live, and their union negotiating with the government on their behalf.

- Most workers ranked policies related to social safety nets the highest. The survey suggests workers see clear benefits and a clear rationale for government to fund these programs, and believe these kinds of policies are most capable of making the transition to net-zero fair.
- Overall, workers want consistency through transition when it comes to their wages, skillsets, and places they work, as well as their pensions and benefits.

Worker values

Interviews and focus groups revealed that workers from different industries and provinces generally shared similar values. Workers interviewed were strong supporters of unions and believed that unions benefit society overall. They take pride in their work and believe in the value of earning a paycheck through an honest day's work, being treated fairly, and taking care of one another. They were respectful and open to new ideas and were keen to provide feedback on the proposed worker-focused policies.

Awareness and perceptions of Canada's pathway to net-zero

Awareness of the concept of net-zero was high among workers who participated in interviews and focus groups. The vast majority of workers agreed climate change is real. They agreed on the importance of preserving the environment to benefit future generations. However, some workers were concerned about workers, families and communities being adversely affected by changes along the path to net-zero. Workers also identified what they considered to be contradictory policy priorities such as reducing emissions while causing environmental degradation in other industries.

Approximately 34% of workers surveyed lacked clear familiarity with the concept of 'pathways to net-zero'. When workers were asked to rank on a scale of 1 to 10 how positively they felt about the transition to net-zero, the average result was 5.8 out of 10 (neutral). In general, workers felt somewhat more positive perceptions about pathways to net-zero knowing policies described in the study could be put in place — with a change in average ranking from 5.8 to 6.3 out of 10. This finding underscores the need for better communication with workers about what the path to net-zero means, and how they can take part — and benefit.

Policies to support workers

Workers were asked to rank a selection of possible transition policy interventions transition on a scale of one to ten. Among the proposed policy options the two that

emphasized pensions and employment insurance earned the highest ranking overall at 7.9 and 7.8 out of 10 respectively. Policies related to training, worker involvement, and investments all of which received scores above 7. Women, on average, showed even higher appreciation in the survey for these policies than men. Workers surveyed in Alberta, however, ranked training and worker involvement policies higher than employment insurance and pensions, unlike all other provinces.

Workers in urban areas generally rated all policies more favorably than workers in suburban and rural areas. Of these policies, most workers generally saw the benefits of pensions and employment insurance most clearly, and believed these were things government would pay for. The differences highlighted in these findings demonstrate how positionality and political identity can influence perceptions and opinions — highlighting the need to consult with a wide range of groups.

Policy attributes

Workers surveyed indicated the most important policy attributes for a fair transition when asked to select from a list. The top six are as follows:

1. Your current pension is protected.
2. The job you transition to has the same salary that you currently earn.
3. You are able to stay and work in your community.
4. Government investments require companies to pay fair wages and provide apprenticeship opportunities.
5. Your union negotiates on your behalf.
6. All training for new work or a new job is guaranteed.

These results differ slightly from findings from interviews and focus groups who chose ‘job training guarantees’ and ‘the job you transition to having the same salary as you currently earn’ as the highest ranked policies.

Findings related to specific policies

A **pension bridging and guarantee policy** resonated strongly with workers. In the interview and survey groups, it was the top-rated policy (8.9 and 7.9 out of 10 respectively) and was the second-highest ranked (8.3) among focus group participants. The policy was supported by both younger and older workers and was seen as beneficial to both generations. The survey revealed that a small number of workers believed this policy could be improved by extending it beyond 72 weeks.

Policies related to **training** were evaluated at 8.7 out of 10 by the interviewees, 8.0 by the focus groups, and 7.6 in the survey. Training and skill-building was the only policy that was mentioned spontaneously. For workers, the benefits of training are clear, and workers felt this policy was motivating. Workers were supportive of increasing training in settings like union training centres where instructors are trusted to provide tailored training to workers.

Through the survey, most workers believed that government should pay for retraining/training, noting training workers is beneficial for everyone. Younger (18-34) and older (65+) ranked this policy most favorably. Some workers suggested that subsidies could be offered to companies to incentivize training. Negative perceptions of this program often stemmed from feelings that some groups should not get preferential treatment.

“If we're going to take the workforce, from the Alberta oil sands, from Newfoundland offshore, and transition these employees to other jobs, there has to be some type of training effort, training program to make that work.”

— Pulp and paper worker in Newfoundland

Policies related to **employment insurance** were evaluated at 7.9 out of 10 by the interviewees and 7.8 across the focus groups and the survey. Income support measures were supported by workers and viewed as a necessity in the event of layoffs. However, workers want to see checks and balances in place on EI policies. Most workers believed this was worthy of government investment. A small number of respondents ranked it negatively because current levels of EI are not enough to support the costs of a household, and workers fear this could result in higher taxes.

Policies related to **attaching labour conditions to government investments** were evaluated at 8.4 out of 10 by interviewees, 7.8 by the focus groups, and 7.3 in the survey. Policies to support organized labour created a sense of confidence among workers, who interpreted the policy as aiming to ensure that new jobs had similar protections, wages, and benefits as their current jobs. Of all the policies reviewed, surveyed workers felt that this policy was the least likely to be implemented.

Policies related to **career transition supports** were evaluated at 8.5 out of 10 by the focus groups, and 7.6 by the interviewees. Workers liked a tailored, peer-to-peer approach to match their skillsets to new job opportunities. However, some workers viewed this more as a personal rather than a government responsibility.

Policies related to **worker involvement in decision-making** were evaluated at 8.1 out of 10 by the focus groups and 7.4 through the survey. Workers who ranked the policy positively noted it was important for workers to be at the table to have their concerns heard, and as crucial for protecting workers, their rights, and working conditions. Workers were less likely to see the benefits of this policy. Some workers noted they scored this policy negatively because they did not believe the government cares about benefiting workers.

2.3 Modelling possible outcomes of the transition to net-zero

Pembina and the CLC commissioned Navius Research to undertake a modelling exercise to better understand how the pathway to net-zero—and timely interventions — could influence employment and economic outcomes from 2025 to 2050.

Navius built a customized version of gTech, an energy modelling tool, to undertake this analysis. Customizations made for this research included new functionality that allowed the model to examine impacts to specific occupations, integrate interprovincial mobility, add inter-occupational training, and simulate involuntary unemployment. The intention of this exercise was to test to see if policies like income support, training subsidies, and economic tools could improve outcomes for workers and communities along the path to net-zero.

Key findings

- ➔ 2 million people are employed in the clean economy in a net-zero scenario by 2050. More clean economy jobs are created than are lost in the jobs related to fossil fuel production and use even without additional labour and economic interventions in place to support workers.
- ➔ The addition of new retraining and income security interventions lowers unemployment and increases wages for workers most affected by the transition to net-zero.
- ➔ A modest set of policy interventions help generate a cumulative increase of \$55 billion in GDP between 2040 and 2050 in Canada in a net-zero scenario relative to no interventions.

→ Targeted economic development interventions prevent workers from leaving fossil-fuel dependent provinces by creating employment opportunities.

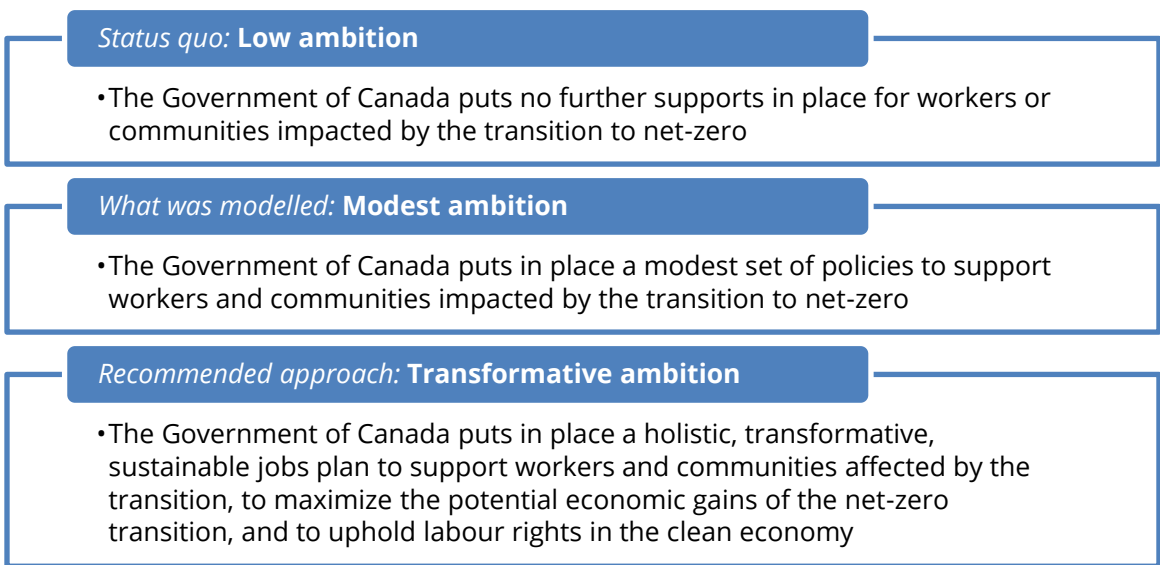
What this modelling exercise is meant to achieve

In general, energy-economy models are tools to understand the impact of climate and energy policy on future economic outcomes. This can help communicate complex ideas and guide policy development. Models can form a valuable part of the decision-making toolkit but are often complemented with qualitative analysis due to model simplifications. Even the best energy models have limits and will misrepresent certain aspects of reality. For example, energy models may not be able to forecast how political identity influences behavior or predict impacts of global conflict on the energy transition.

The modelling exercise is not meant to predict the future. Instead, it gives an approximate assessment of what the worst-case scenario could be if government *does not* put additional supports in place for workers.

This Blueprint stresses the importance of a robust sustainable jobs plan to ensure that certain workers and regions are not disproportionately impacted by the shift to net-zero. This modelling exercise is meant to identify possible impacts and prepare decision-makers to support workers and communities.

Approaches to supporting workers in the energy transition worker



This modeling exercise represents an innovative and novel approach to understanding the impacts of possible government actions to support workers in the net zero transition in Canada. To fit within model constraints and research scope, we selected a few possible government actions and interventions to explore in this analysis. The recommendations outlined in Sections 3 and 4 go further than what was modelled to explore the benefits of developing a net-zero industrial strategy, developing programs and policies that uplift equity-deserving groups, and supporting unionization in emerging net-zero industries.

In short, findings from this modelling exercise should be interpreted as an illustration that labour and economic interventions can improve employment, incomes, and economy-wide growth outcomes, but additional policy solutions are needed to achieve the full potential of the transition to net-zero.

Modelling approach

For this modelling exercise, Navius used an updated version of its gTech model. gTech is a computable general equilibrium (CGE) model that represents the economy through a series of simultaneous equations linking economic inputs with outputs. gTech accounts for all economic activity in Canada and the United States, including GDP, trade of goods and services, and the transactions that occur among households, firms, and government. As such, the model provides a forecast of how government policy affects many different economic indicators including GDP, investment, trade, household income, and employment.

The basis for this analysis was a net-zero policy scenario, following the ‘Net Zero Emissions oil price forecast from the International Energy Agency’s 2022 World Energy Outlook.’²⁸ The ‘net-zero policy scenario’ assumes that Canada achieves a 2030 emissions target of 45% below 2005 levels and net-zero emissions in 2050. This scenario assumes that a certain amount of offsets are available via land-use, land-use change and forestry (30 Mt in 2030 and 103 MtCO₂e in 2050) based on Canada’s 2030 Emissions Reduction Plan²⁹ and a recent report by Nature United.³⁰ This scenario also assumes that

²⁸ International Energy Agency, *World Energy Outlook 2022*, (2022). <https://www.iea.org/reports/world-energy-outlook-2022>

²⁹ Environment and Climate Change Canada, *2030 Emissions Reduction Plan: Clean air, strong economy* (2022). <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/emissions-reduction-2030.html>

³⁰ Ronnie Drever, Susan Cook-Patton, Fardausi Akhter, et al, “Natural Climate Solutions for Canada,” *Science Advances*, 7, no. 23 (2021). <https://www.science.org/doi/10.1126/sciadv.abd6034>

the U.S. implements stringent climate policy. The implication is that as Canada's biggest trading partner, the U.S., accelerates efforts to decarbonize, they will rely less on imported Canadian oil and gas — and this would likely mean significant decline in Canada's oil and gas sector. Some of the findings featured in this section highlight specific impacts in Alberta, recognizing it is the province most dependent on fossil fuels.

In this exercise, Navius defines low-carbon energy jobs as the technologies, services and resources that increase renewable energy supply, enhance energy productivity, improve the infrastructure and systems that transmit, store, and use energy while reducing carbon pollution. This includes both direct employment in sectors producing low-carbon energy services, and value-added jobs associated with the use of low-carbon technologies in other sectors, as well as indirect jobs such as construction, manufacturing, and services. Exposed occupations are considered to be more at risk in the transition to net-zero as they are disproportionately found in the oil and gas industry. Additional details pertaining to the methodology can be found in the technical report.³¹

Results for *Low ambition*: Net-zero without additional supports for workers

The following results represent the employment and economic impacts of achieving a net-zero scenario without further government interventions to support workers and communities than those that are currently in place. While some macro-level benefits to achieving net-zero are realized without additional interventions, the results also paint a cautionary tale. Without a plan for workers, the model results show that the road to net-zero could result in disproportionate disruptions to certain categories of workers and certain regions. Given that technological change, global markets, and international policy are major drivers of these changes – it is in Canada's best interest to prepare.

Clean energy job creation

The good news is that the model finds that more jobs are created by 2050 than lost, even without additional economic and labour interventions. The model finds that clean energy jobs grow by 1.6 million between 2020 and 2050, while jobs related to fossil fuel production and use decline by 900,000. Across Canada, 35% (686,000 jobs) of these jobs

³¹ Douglas Bryan, Sam Harrison and Jotham Peters, *Sustainable Jobs Blueprint: Modeling Annex* (Navius Research, 2023). https://www.naviusresearch.com/publications/sustainable_jobs_modeling_annex/

are located in Ontario, 19% (385,000 thousand) in Quebec, 18% (364,000) in Alberta, 13% (256,000) in B.C., and 5% (106,000) in Saskatchewan, with the remaining 10% distributed across other provinces and territories.

The model also finds that provinces like Alberta, with the highest proportion of jobs in fossil fuel production and use, still experience net job growth in a net-zero scenario. This is in part the result of the growth in employment in manufacturing and services sectors offsetting decreased employment in the oil and gas and construction sectors.

The number of jobs that remain in the oil and gas sector depends on how much carbon capture and storage (CCS) and direct air capture (DAC) technologies are deployed and their cost. According to the model, if CCS and DAC are less expensive, there could be 40% more jobs in fossil fuel production and use in 2050, half of which would be in Alberta. Furthermore, in the model the price of oil, determined in the global energy market, is a bigger determinant of employment in Alberta than domestic climate policy. This highlights the importance of advance planning for the energy transition, as Canadian fossil fuel workers are vulnerable to a decline in the global oil price.

The result is that clean energy jobs could make up approximately 10% of employment, or a total of 2 million direct and indirect jobs, in a 2050 net-zero scenario. Figure 1 provides a breakdown of the different categories of clean economy jobs and projected growth to 2050, including: electric vehicle supply chain and operation (723,000 jobs); low-carbon buildings: (352,000 jobs); carbon capture and storage and direct air capture (253,000 jobs); clean electricity: (225,000 jobs); hydrogen (174,000 jobs); biofuels (147,000 jobs); and low-carbon manufacturing (46,000 jobs).

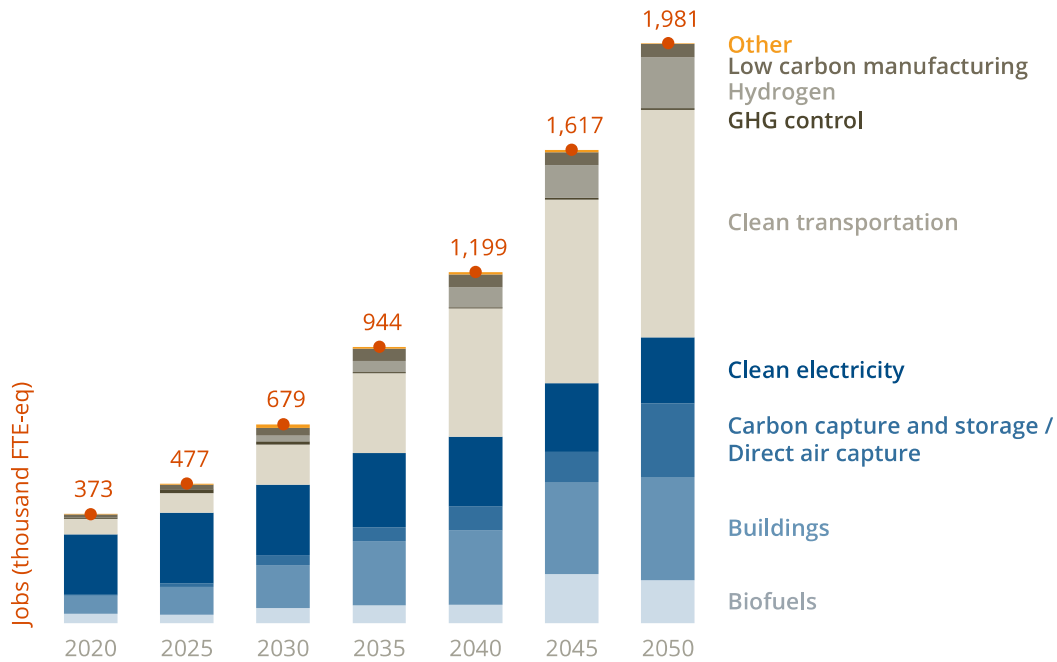


Figure 1. Clean economy jobs in Canada under net-zero emissions

Change in unemployment levels for certain occupations

The challenge is that the model shows that unemployment in occupations in the natural resources, trades, transport and equipment operations could be higher than average in a net-zero scenario without any additional policy interventions. This is because these occupation categories are more concentrated in jobs in fossil fuel production and use which are impacted more directly in the model by variables such as the price of oil. Without a sustainable jobs plan, these workers are more vulnerable to the impacts of the shift to net-zero. This specific result signals the kind of impact that a sustainable jobs plan should mitigate.

Movement between regions

The model finds that there is more movement between provinces along the trajectory to net-zero by 2050 when compared to the Canada Energy Regulator forecast.³² The model suggests Alberta and Saskatchewan experience lower than anticipated growth due to stagnant wages. Conversely, the model finds that Quebec and British Columbia experience higher than anticipated population growth as wage growth helps attracts

³² Canada Energy Regulator, *Canada’s Energy Future 2021* (2021). <https://www.cer-rec.gc.ca/en/data-analysis/canada-energy-future/2021/>

more workers. Most provincial populations increase out to 2050, with a Canada-wide population growth of 0.85% per year.

Impacts to wages

Wages in fossil-fuel producing provinces increase moderately between 2020 and 2050, due to increased labour productivity. However, occupations concentrated in fossil fuel production and use see flat or declining wages. This is due to lower demand for these occupations as oil production declines; where fewer job vacancies leads to lower wages.

Results for *Modest ambition*: Net-zero with modest interventions to support workers

The second part of the modelling exercise sought to answer the question: How do key policy interventions affect macroeconomic outcomes for Canada — and what do they cost? To answer this question, four labour market and economic interventions were tested to determine which are most effective at achieving positive outcomes for workers impacted along the path to net-zero.

Bucket 1 - Training and skills: This set of policy interventions imagines that additional retraining subsidies are made available to workers across the whole economy, and training is incentivized through employer–government cost-sharing schemes. It also includes programs and targeted funding to help workers access additional training opportunities in exposed occupations. The model assumes that workers will retrain when their net expected wages in a new occupation exceed those of the existing occupation, taking into account the costs associated with retraining, such as tuition and lost wages.

Bucket 2 - Employment Insurance (EI) and income support: This policy intervention imagines that an updated Employment Insurance program is made available to workers across the entire economy while they are retraining. This means that workers who choose to retrain and access subsidies based on the assumption in ‘Bucket 1’ also benefit from this intervention.

Bucket 3 - Pension bridging: This policy intervention imagines that a bridge to retirement is made available for workers in occupations likely to be impacted by the transition to net-zero, covering 75% of wages over 72 weeks. The model applies this policy to workers in the later stages of their career (i.e., over 55 years old) in exposed occupations when retraining may not make financial sense.

Bucket 4 - Economic development: This set of policy interventions imagines that a series of funding programs and transfers are designed to accelerate clean industry, particularly in fossil fuel dependent communities and regions. These interventions are applied in the model via direct funding for clean industry, investment tax credits, and regional funding.

Effects on Gross Domestic Product (GDP)

When these policy interventions were modelled together, it shows that Canada's GDP increases by \$7 billion by 2050 relative to a net-zero scenario with no interventions. While this is only a small increase of 0.2% of total GDP, increases to GDP in the model reflects greater levels of employment, productivity, investment, and net exports - which is good news for workers and the economy. The model does, however, show that there are some costs to GDP, particularly during the near-term period where a large number of workers exit the workforce to retrain. This early investment in Canadian workers and communities pays dividends ultimately, however, as it results in a higher GDP from 2040 onwards as labour is more efficiently allocated throughout the economy.

This modelling result suggests that removing barriers to retraining helps spur growth across most sectors of the economy, with the highest growth in construction and transportation sectors. At the same time, this may not reflect people's real-life behaviour, when the decision to leave the workforce to retrain depends on a number of factors, such as family responsibilities, financial security, location, and willingness to retrain.

Impacts of policies to exposed occupations

Implementing policy intervention buckets 1 and 2 (retraining and EI supports) increases wages and reduces unemployment for at-risk occupations in natural resources and trades in a net-zero scenario. Increasing retraining supports allows more workers to exit these occupations as demand for these workers declines in response to reduced output in the fossil fuel sector, and demands increase in emerging sectors. This leads to a lower unemployment rate for these workers. With fewer workers, there is increased bargaining power for the remaining workers, which leads to higher wages for those who remain employed in those occupations.

At the same time, the increase of workers accessing retraining and EI programs means there may be a larger supply of workers in the occupations that workers choose to retrain into, which could have a slight negative impact on wages and unemployment in

those sectors. The model does not address the impacts of unionization in the sectors workers retrain into, which could impact wage impacts.

Economic activity and employment in fossil-fuel dependent provinces

The model shows that economic development policy interventions (i.e., bucket 4) help increase economic activity and job opportunities when applied to fossil fuel-dependent provinces like Alberta, Saskatchewan and Newfoundland and Labrador. The largest benefits occur between 2026-2030, which is when most funding is allocated. In this scenario, investment tax credits for trade-exposed, low-carbon industries are provided for these three regions by the federal government, funded by incrementally higher national tax revenue.

Figure 2 presents the additional job opportunities in each province as a result of economic development policy interventions. While these policies increase growth in clean economy jobs, the majority of the increased economic activity and employment is related to industrial growth in the wider economy.

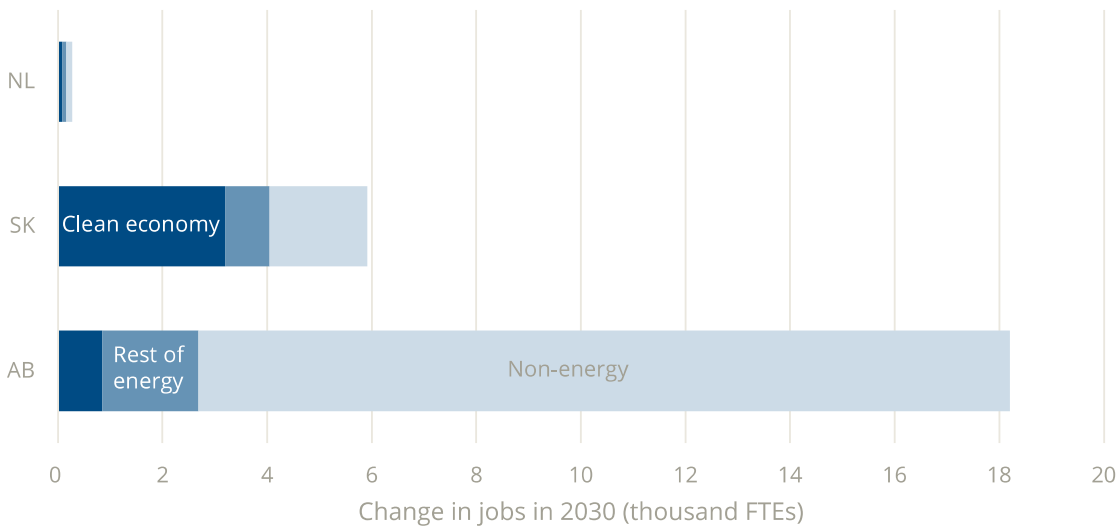


Figure 2. Growth of jobs due to economic development policies by 2030

Furthermore, economic development policy interventions result in lower unemployment and slightly higher wages in fossil fuel provinces. All occupation categories in Alberta see a decreased unemployment rate as a result of the economic development interventions. For example, heavy equipment operators in Alberta experience high unemployment in a net-zero scenario when no interventions are applied; however, when interventions are applied, unemployment is 9% lower in 2035.

Changes to provincial populations

The model also suggests that economic development policy interventions help limit changes to the rate of population growth in provinces with fossil fuel dependent communities. For instance, there are 20,000 more people in Alberta in 2030 compared to when no policy interventions are applied. Increased economic activity in these provinces translates to better employment opportunities, which helps these places retain workers in their home province.

The cost of policy interventions

When it comes to the cost of implementing these policy interventions, the model finds that it takes a total of \$30 billion between 2025 and 2050 to achieve these results. While there is a short-term decrease in GDP as the model assumes workers leave the labour force to retrain, there is a cumulative increase of \$55 billion in GDP between 2040 and 2050. This suggests the modelled set of policy interventions lead to sustained increases to GDP in the long term.

3. A Sustainable Jobs Blueprint: *Worker-focused actions*

As technology and policy changes accelerate around the world, Canada must be ready and able to take advantage of the opportunities that will emerge. Investing in readying the workforce for technological change and emerging technologies, as well as promoting economic diversity through a range of policy measures, ensures that Canada can be a destination for investments and good jobs. Canadian policy makers have watched as the policies in the United States have drawn in new investments,³³ highlighting the urgency to seize the critical window in which to attract investments.

The modelling shows that Canada has the potential to generate a booming clean economy. Interviews and surveying of workers indicate that workers are willing and interested in taking up the opportunities that getting to net-zero will present provided that these opportunities offer similar wages and benefits, and ideally have the protection of union representation, and are able to use existing skills. They do, however, need support and direction for how to do so.

Building the clean economy and connecting workers with the right jobs to generate a strong and resilient workforce is a daunting and complex task that requires multi-jurisdictional effort. Countless factors must be advanced together to reduce emissions, improve the social security net, equip workers with the right skills, and support regional and macro-economic prosperity. This Sustainable Jobs Blueprint proposes taking a holistic approach and identifies four worker-focused actions, complemented by three economy-focused actions to achieve a fair transition for workers and communities.

The four key worker focused actions are:

1. Invest in skills and training capacity to give workers the tools to succeed
2. Provide income security and programs that help workers find new jobs or retire early
3. Enable a framework to uphold good job standards in the clean economy
4. Engage with workers about their futures

³³ Environmental Defense Fund, “One Year After IRA Passage, New Report Finds U.S. Electric Vehicle Investments, Jobs Continue to Soar,” news release, August 16, 2023. <https://www.edf.org/media/one-year-after-ira-passage-new-report-finds-us-electric-vehicle-investments-jobs-continue>

These actions are complementary and reinforce positive outcomes for works and communities. The modelling shows that investments in training and EI programs help stabilize unemployment levels, but do not address possible population decline in fossil fuel provinces — leaving provinces vulnerable to additional negative economic impacts from outflows of residents. Policies targeted toward bolstering regional economies impacted by transition offer solutions to mitigate this migration. Regional development policies give workers and communities a solid chance at a hopeful future.

In developing these recommendations, the enabling factors for success identified in the first report are reflected throughout. Not only is it critical that **adequate levels of resourcing** are leveraged to achieve desired results, the investments into skills and economic development activities must ensure Canada gets **closer to achieving its net-zero targets**. A **cohesive strategy and vision** must guide this spending — throwing money at the problem will simply not suffice. Policies and programs that cross jurisdictional boundaries and responsibilities must **involve sub-national governments**, reflect the diversity of the country, and ensure solutions are compatible in different regions. Finally, the design of these programs can only be done right with engagement of workers through **social dialogue** in order to secure their **buy-in**.

The following section unpacks each worker-focused action area and proposes measures the Government of Canada can take to increase the ambition and efficacy of current sustainable jobs policy approaches. These recommendations underscore the need for a substantially higher volume of spending to support workers and communities through the shift to net-zero.

3.1 Invest in skills and training capacity to give workers the tools to succeed

Key findings

- ➔ Training and re-training is one of the most important investment areas for workers given the anticipated levels of job creation in the clean economy.
- ➔ The federal training ecosystem must be scaled up and streamlined to align programs with sustainable jobs objectives — including bolstering training capacity for credible training providers.

- Specific approaches must be taken to support the unique needs of youth, newcomers, women, and gender diverse people in the clean energy sector that strengthen access, opportunity, and inclusivity.

A new approach to workforce development is needed to align workers' skills with the shift to net-zero. In the face of skills shortages, the increasing urgency to address climate change and the need to staff up new industries, more must be done to ensure workers are equipped and willing to take up jobs in the clean economy. According to the Conference Board of Canada, skills-related job vacancies alone cost the Canadian economy as much as 1.3% of GDP in 2020. That's more than \$25 billion.³⁴

Aligning training and workforce development with economic and climate plans, such as a net-zero industrial policy (see Section 4.2) is an important first step. It can alleviate existing shortages and position a skilled and adaptable workforce to be ready to take advantage of future economic opportunities. Retraining is an important policy solution that workers recognize, understand, and support. According to the interviews and focus groups, workers support funding for retraining as it provides them reassurance that they will not have to manage additional expenses.

Recognizing that investments are also being made elsewhere, Canada should move quickly to ensure workers have the skills to address existing shortages which affect capacity to deliver on climate adaptation, electrification, and innovation. Additionally, investing in economic diversification and net-zero industrial strategies will create an array of opportunities for workers when accompanied by robust, recognized, accessible training.

Collaboration is needed at the national level to set priorities and bring workers, unions, training providers, employers, and educational institutions together to align ambitions with approaches. Details on how to do so and recommendations for the Secretariat and Partnership Council can be found in [Part I of the Blueprint](#).

What training options exist for workers?

The federal government spends \$1.4 billion on training and skills development each year. There are a wide variety of programs available that achieve different goals, such as helping people enter the trades, creating apprenticeships, and supporting

³⁴ Future Skills Centre, "Tackling skills shortages now and in the future," news release, May 12, 2022. <https://fsc-ccf.ca/engage/innovation-growth/>

underrepresented groups, and specific initiatives to support workers entering into sustainable jobs (see Appendix A for a list of federal skills programs). A portion of this federal training is directed to the Union Training and Innovation Program (UTIP) to “improve the quality of training in the skilled trades enabling a more skilled, certified and productive workforce.”³⁵ In 2022, it was announced that the permanent funding for UTIP would be doubled to support unions as they developed green skills training for workers in the trades.³⁶

The government also provides labour market transfers to the provinces and territories through bilateral Labour Market Development Agreements and Workforce Development Agreements that provide \$3.5 billion each year for individuals and employers to receive training, upskilling, employment supports, career counselling, and job search assistance.³⁷ Provinces and territories administer their own suite of employment and training programs, often through public crown corporations. Despite current spending levels, Canada’s current training and reskilling policy environment has limitations.

First, the present level of federal skills funding available does not match the anticipated volume of workers accessing training dollars over the coming years. The modelling shows that up to 72,000 workers will need to be retrained each year between 2026 and 2030, with over 600,000 in a 30-year period. Training should be made available in advance of this increased need, and institutional training capacity must match the demand.

Secondly, the federal training architecture lacks coherence and is not presently structured to achieve the goal of helping workers connect to sustainable jobs. Although Canada has invested in training, unions and employers alike have flagged concerns about skills mismatches and shortages, and employers often seek out temporary foreign workers to fill these gaps. Experience shows that training without a clear objective can lead to ineffective transitions leaving workers without useful skills. For example, training programs created in response to Newfoundland’s cod fishery collapse provided workers with training that did not support workers’ re-entry into the labour force.³⁸

³⁵ Employment and Social Development Canada, “About the Union Training and Innovation Program.” <https://www.canada.ca/en/employment-social-development/programs/union-training-innovation.html>

³⁶ Government of Canada “Sustainable Jobs Plan.” <https://www.canada.ca/en/services/jobs/training/initiatives/sustainable-jobs/plan.html>

³⁷ Employment and Social Development Canada, “Labour Market Transfers.” <https://www.canada.ca/en/employment-social-development/programs/training-agreements.html>

³⁸ Heritage Newfoundland, “Economic Impacts of the Cod Moratorium.” <https://www.heritage.nf.ca/articles/economy/moratorium-impacts.php>

Federal training programs could be streamlined to achieve the goal of increasing the availability and accessibility of training for sustainable jobs that will be in demand in a net-zero economy.

The third challenge is that workers feel that the current funding programs do little to help them understand opportunities relevant to their unique circumstances. Each new job generated through the energy transition will require a different set of competencies and credentials, and there are myriad ways for workers to pursue these requirements, such as trade schools, colleges, apprenticeship programs, universities, and other private and public training centres. Workers benefit from guidance about the best education and training pathways that lead to sustainable jobs.

Finally, the fees associated with training are only a fraction of the total net costs to the worker when lost wages are taken into account. Unless the training is done on the job, workers often must pause or stop working in order to train, as many training options are full time or structured in a way that prevents people from training while still employed. Programs should ensure that training is accessible to those who need it, not just those who can manage it.

Credible training providers

Not-for-profit public educational institutions like many colleges and universities have their course curriculum reviewed and accredited through regulatory bodies to ensure they are offering high quality training and education. Union training centres have a long history of providing skills training, especially in the skilled trades, and offer workers the kind of training and certifications that lead to careers. Curriculum and courses at many union training centres are determined by a joint employee-union board and are designed to meet and exceed provincial and international standards, such as Red Seals.

While not-for-profit training is driven by outcomes, private training has a profit-driven imperative to move people through training quickly, whether it serves the needs of students or not. The media is full of stories that provide unfortunate examples where

private colleges put profits before the interests of students.^{39,40,41} In one instance, a private college falsely advertised ‘electrical apprenticeship’ training, despite not having the accreditation to provide such an apprenticeship. The same college tried to apply for public funding to draw recently laid-off workers to the program with no real pathway for these workers to practice as a certified electrician following completion of the program.

Need for accurate and available data

Part I of the Blueprint highlighted the need for labour market analysis to understand opportunities and impacts of the net-zero transition over the near, medium and long term. This need was echoed by the workers in the interviews and focus groups: they want to know where they’ll be needed and where the jobs will be. A clear picture of timelines, jobs lost and created, job locations, and skills and education pathways is needed to properly inform net-zero workforce and economic development planning.

As previously stated, the net-zero economy is expected to support 2 million clean economy jobs in 2050. Across Canada, 35% of these jobs are located in Ontario, 19% in Quebec, 18% in Alberta, 13% in B.C., and 5% in Saskatchewan, with the remaining 10% distributed across other provinces and territories. This gives policy makers a sense of where these jobs will be concentrated; however, more granular details must be extracted from these figures.

In addition to jobs generated by the shift to net-zero, other sectors are poised for growth to 2050 as the economy shifts in response to overlapping global trends, such as immigration, aging population, automation, as well as the global shift to net-zero. The modelling shows that Canada can expect to see 3.8 million new jobs across the whole economy, with the highest growth in the services sector.

³⁹ Lucie Edwardson, “Increased oversight of private career colleges needed to protect students, report says,” *CBC*, October 26, 2022. <https://www.cbc.ca/news/canada/calgary/private-career-colleges-oversight-urged-1.6629652>

⁴⁰ Sophia Harris, “Everest College closure no surprise to some who call it a scam,” *CBC*, February 25, 2015. <https://www.cbc.ca/news/business/everest-college-closure-no-surprise-to-some-who-call-it-a-scam-1.2969513>

⁴¹ Kiran Singh, “2 B.C. private colleges accused of shortchanging international students through misleading tactics,” *CBC*, March 2, 2023. <https://www.cbc.ca/radio/thecurrent/bc-private-colleges-international-students-1.6764095>

Equipping the future workforce with the right skills

Part of sound transition planning recognizes the constant evolution of the workforce and the need to take a long-term approach to policy solutions, including education and training. Workers are constantly entering, exiting, and moving within the workforce. Planning for net-zero not only involves retraining workers into new occupations and sectors, but ensuring those entering the workforce have the skills that a net-zero economy demands.

Youth moving throughout elementary, middle, and high school will be the workers of tomorrow — and they need to understand what options are available to them and how to enter education pathways that lead to decent, sustainable jobs. Electricity Human Resources Canada notes that most core occupations in the electricity sector require at least grade twelve math and sciences.⁴² Thus, maintaining interest in these subjects from a young age is critical to ensuring current and future skills demands are met. Furthermore, the Alberta Federation of Labour, notes that the cost of housing, inflation, and increased reliance on gig economy work means that young people in Alberta will likely face more instability and economic hardship than their parent’s generation.⁴³ To provide a sense of opportunity, an intergenerational, future-focused approach to training and education is required.

Similarly, most of Canada’s population and labour force expansion is being driven by immigration.⁴⁴ Supporting newcomers to integrate into the workforce is thus a crucial element of sustainable jobs planning. Canada can do more to recognize credentials in regulated occupations, such as carpenters, welders, and electricians, to put talented people in much-needed jobs and respond to worker shortages. These programs should ensure that workers with these credentials have a clear path to permanent residency and citizenship and are afforded the same labour protections as citizens. If leveraged correctly, the coming energy transition may be an opportunity to advance equity for newcomer communities who may otherwise experience more barriers to entering the labour market than their Canadian-born peers.

⁴² Mark Chapeskie, “Sparking Career Interest in Canada’s Electricity Industry,” *Your Career Guide*, June 27, 2022. <https://www.yourcareerguide.ca/insights/insights-archive/sparking-career-interest-in-canadas-electric-industry/>

⁴³ *Skate to Where the Puck is Going*, 8.

⁴⁴ Immigration, Refugees and Citizenship Canada, “An Immigration Plan to Grow the Economy,” news release, November 1, 2022. <https://www.canada.ca/en/immigration-refugees-citizenship/news/2022/11/an-immigration-plan-to-grow-the-economy.html>

Removing barriers for women and gender diverse people to participate in the clean energy economy

Women are underrepresented in the energy natural resources, trades and energy sector, making up only 24% of the Canadian energy workforce.⁴⁵ Research shows that women face additional barriers to entry and advancement in these sectors related to a lack of access to opportunities, a lack of good jobs that provide benefits and support working parents, low advancement and promotion rates, and industry culture.⁴⁶ These factors contribute to a persistent income gap between the genders and perpetuate biases, discrimination and sometimes physical harm to women and gender diverse people in their workplace.⁴⁷

The gender wage gap in the energy sector is especially concerning in Canada when compared to other G7 countries.⁴⁸ Across Canada's provinces and territories, women make up only 26% of all employees in oil and gas, 23% of electricity and 16% of mining.⁴⁹ For context, women make up 47.5% of Canada's total employed workforce. When women are employed in the energy sector, they are often found in roles with lower pay and less opportunity for career advancement and growth.⁵⁰ Pay disparity is the highest in natural resources, manufacturing and utilities sectors, where women earn an average of \$0.50 for every \$1.00 that men working in the sector earn.⁵¹

A number of existing initiatives, many driven by unions, seek to better integrate women into career pathways where they are traditionally underrepresented. Some of these

⁴⁵ Canadian Centre for Energy Information, *Energy Fact Book: 2023-2024* (2023), 36. <https://energy-information.canada.ca/en/energy-facts/skills-diversity-community>

⁴⁶ Genevieve Doiron, Emma Severson-Baker and Laura Hughes. *Women in Alberta's Energy Transition: A review of barriers to participation and leadership* (Pembina Institute, 2021). <https://www.pembina.org/pub/women-albertas-energy-transition>

⁴⁷ Trinity Song and Kendall Anderson, *Putting People, Equity and Inclusion at the Centre of Climate Action: Pembina Institute thought leaders' forum* (Pembina Institute, 2023). <https://www.pembina.org/pub/putting-people-equity-and-inclusion-centre-climate-action>

⁴⁸ Organisation for Economic Co-operation and Development (OECD), "Gender wage gap." <https://data.oecd.org/earnwage/gender-wage-gap.htm>

⁴⁹ Statistics Canada, "Industry groups by class of worker including job permanency, labour force status, age and gender." <https://doi.org/10.25318/9810044801-eng>

⁵⁰ Kendall Anderson, Calyssa Burke and Jaymes MacKinnon, *September 2022 Gender Equity Thought Leaders' Forum: What we heard and key takeaways* (Pembina Institute, 2022). <https://www.pembina.org/pub/september-2022-gender-equity-thought-leaders-forum>

⁵¹ Statistics Canada, "Average and median gender pay ratio in annual wages, salaries and commissions." <https://doi.org/10.25318/1410032401-eng>

programs advance measures that make the trades more inclusive, set quotas, provide workplace safety competencies and pursue targeted outreach.

Example: Office to Advance Women Apprentices, Canada

The Office to Advance Women Apprentices is an organization that operates across select provinces in Canada that seeks to provide tradeswomen the support they need to find employment and be retained in skilled trades work. Each provincial branch provides unique support to enhance the employment opportunities offered to tradeswomen through career services, engagement with employers, and databases to track services and collect data on the number of tradeswomen in apprenticeships. The office is partnered with and funded by employers, trades unions, government, and training institutions.⁵²

Example: Women’s Employment Readiness Program, Canada

The Women’s Employment Readiness Program is a pilot program funded by Employment and Social Development Canada who collaborates with organizations offering pre-employment readiness and skills development supports for women across Canada. The objective of offering equity-based employment programs is to inform systemic change while additionally improving labour market outcomes for women. This program has funded a total of 26 unique projects that provide transferable skills with wraparound supports and improve workplace inclusivity nationally for women that are racialized or Indigenous, have disabilities, come from the LGBTQ2S community and/or have prolonged detachment from the labour force.⁵³

Recommendations

3.1.1 Review, streamline and scale up existing skills training programs

In the 2022 federal budget, the Government of Canada promised to roll out programs that supported the retraining of approximately 24,000 workers per year; however, the

⁵² Office to Advance Women Apprentices, “Supporting women in the skilled trades.”
<https://www.womenapprentices.ca/>

⁵³ Employment and Social Development Canada, “Women’s Employment Readiness pilot program.”
<https://www.canada.ca/en/employment-social-development/news/2022/03/womens-employment-readiness-pilot-program.html>

modelling estimates that up to 72,000 people per year will require training. The modelling also finds that investment in skills training is one of the key interventions required to mitigate any potential future increases in unemployment rates driven by the transition to a net-zero economy. Training is also one of the most popular supports among surveyed workers.

To align with the anticipated training demands of a net-zero economy, federal skills programs, such as the Union Training and Innovation Program and other select programs listed in Appendix A, should be reviewed, streamlined, and scaled up. Such an endeavour could be led by the proposed Sustainable Jobs Secretariat, in consultation with unions, training centres, public colleges, employers and other past and current recipients of program funding. Learning from the Newfoundland cod moratorium must be ensure participants receive the skills needed to re-enter the labour force into a decent job. The purpose of the review would be to determine how to strengthen programs to meet anticipated labour market demands and to improve program efficacy and alignment with sustainable jobs objectives and economic investments, such as those articulated through net-zero industrial policy (discussed in Section 4.2). This review should also investigate how best to recruit equity-deserving groups and make training programs accessible to facilitate greater participation in sustainable jobs.

To streamline access to sustainable jobs training opportunities, the Sustainable Jobs Secretariat should be structured to include a ‘programs and service delivery’ team, which would serve as a one-stop shop for workers seeking to transition to jobs as proposed in [Blueprint Part I](#). The Sustainable Jobs Secretariat could work with the Sustainable Jobs Training Centre, announced in the 2022 Fall Economic Statement. These two entities should ensure that federal skills programs direct workers toward optimal training pathways, especially union training centres and accredited programs that have proven results in connecting workers to meaningful career pathways. The Secretariat and Training Centre should also ensure that specific, targeted resources and culturally safe supports are available to promote uptake and inclusion of equity-deserving groups, such as women and Indigenous people. More details on the recommendations pertaining to the Sustainable Jobs Training Centre can be found in Section 3.1.7., as well as the Secretariat in Section 3.2.3.

3.1.2 Provide capacity funding for union training centres and accredited not-for-profit training programs

The modelling anticipates there will be a sharp increase in demand for training during the 2026-2035 period. This anticipated increase in demand must be met with support to

increase the number of highly qualified training professionals, preferably positioning them to deliver training through public and not-for-profit models.

The Government of Canada should establish a fund directed towards non-profit training institutions that offer accredited education programs based on anticipated labour market demands. Such a fund would equip these institutions with additional training professionals, support staff, course materials and resources to deliver more training to more students seeking pathways to sustainable jobs. Recipients of such a fund should demonstrate proven success in helping workers gain skills that lead to job opportunities. Recipient organizations should ensure that trainees receive comprehensive training required to do jobs safely, rather than “micro-credentials” which may offer workers only a portion of the knowledge needed to perform the work.

Recipients should also be able to deliver flexible training models options, such as online, asynchronous, and, where possible, virtual reality training for workers who live in rural and remote places or live far away from training institutions. Not only would this ensure training options remain accessible in all parts of Canada, it would also increase the likelihood that workers could actively pursue training while employed. It has the added benefit of making training available to women and others who have caregiving responsibilities.

Example: Virtual Reality Training Program, NETCO (Ontario)

The National Electrical Trade Council (NETCO) developed virtual reality (VR) courses for IBEW apprentices that offer a safe training environment and enable flexible and remote training options for workers. VR headsets were shipped to Ontario-based IBEW training centres to produce a novel Virtual Electrical Training (VET) Program and learning experience which allows training providers to forego large training spaces and equipment that poses safety risks to new apprentices and cuts down on waste.⁵⁴

Finally, the government should ensure recipients are equipped to deliver mandatory training in equity, diversity and inclusion as part of publicly funded programs. Building in equity training for workers who access public training dollars creates safer spaces for workers who belong to equity-deserving groups, such as women, gender-diverse people,

⁵⁴ National Electrical Trade Council (NETCO), “NETCO to Offer Virtual Reality Training for IBEW Apprentices,” news release, May 24, 2022. <https://netco.org/news/f/netco-to-offer-virtual-reality-training-for-ibew-apprentices>

and people with disabilities⁵⁵ and is an opportunity to advance key equity and inclusion goals and improve workplace and jobsite culture.

3.1.3 Establish a funding stream for provinces and territories to supplement skills and education programming

Skills and training are largely the purview of provinces and territories. However, the challenges ahead demonstrate the need to develop new and coordinated approaches to training and skills. To be successful, the federal government must set clear objectives, and work closely with provinces and territories to avoid undue jurisdictional challenges.

To ensure that provinces and territories are better equipped to deliver regionally specific education, training and skills development focused on sustainable jobs, federal resources could be distributed. This could take the form of a new fund that provinces and territories could apply to in order to supplement skills and education programs and resources. Such programs and resources would be aligned with sustainable jobs plans and net-zero industrial policy priorities to equip workers with in-demand skills in the labour market. Consultations with provinces, territories, and unions would need to be undertaken to determine the structure of this fund to help advance unique regional labour market concerns in the context of sustainable jobs, including job quality standards and community priorities.

To qualify for funding, provinces and territories would need to prove they are capable of meeting several criteria to ensure the fund achieves the widest possible benefit. Criteria should: ensure that barriers faced by equity-deserving workers are taken into consideration in program design to facilitate fair access; ensure that funding is prioritized towards credible training institutions like union training centres and non-profit training centres that offer accredited programs; and, ensure that the provinces and territories measure outcomes and strive for continuous improvement.

⁵⁵ International Labour Organization and Fundación ONCE, *Making the Green Transition Inclusive for People with Disabilities* (2023). https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_901753.pdf

3.1.4 Incentivize on-the-job and employer-delivered training through a cost-sharing program

The key to successful training programs is that they result in employment; therefore, incentivizing employers to train and retrain their own sustainable workforce keeps workers connected to jobs and minimizes disruption.

Employers could be incentivized to cover part of the costs to train or retrain new workers through a cost-sharing training program. Such a program could support workers in high-emitting sectors to gain the skills they need to participate in a net-zero compatible business model, such as training mechanics to repair electric vehicles. The cost-sharing program could also incentivize employers to hire workers and train them on the job to undertake work where fully skilled workers are scarce. Such a program empowers employers to be part of the sustainable jobs solution by investing in their employees. Additional research would need to be undertaken to identify what criteria should be instated for employers to qualify, and what level of subsidy would be provided to employers.

Example: Canada-Alberta Job Grant, Alberta

The Canada-Alberta Job Grant enables employers to apply for cost-sharing for training employees where government covers two-thirds of the costs and the employer covers one-third.⁵⁶

Example: Workforce Skills Development and Recognition Fund, Quebec

The Government of Quebec enacted the '1% training Law' (Loi sur les compétences) where companies with a payroll over \$2 million are required to allot 1% of their salary mass on training to support their workforce to foster new skills and abilities. If a company does not spend any money on training, they are required to pay into the provincial Workforce Skills Development and Recognition Fund.⁵⁷

⁵⁶ Government of Alberta, "Canada-Alberta Job Grant." <https://www.alberta.ca/canada-alberta-job-grant>

⁵⁷ Revenu Quebec, "Contribution to the Workforce Skills Development and Recognition Fund." <https://www.revenuquebec.ca/en/businesses/source-deductions-and-employer-contributions/calculating-source-deductions-and-employer-contributions/contribution-to-the-workforce-skills-development-and-recognition-fund/>

3.1.5 Guide youth towards sustainable jobs opportunities through educational resources and a tuition credit program

A sustainable jobs approach must extend across generations, especially with regards to training and workforce development. We know a significant portion of the workers that currently make up the labour market will retire between now and 2050, making space for youth who will eventually seek out employment opportunities as they finish their primary and secondary education.

Considering the volume of employment we expect to be created by pathways to net-zero, youth must be equipped with the knowledge about what ‘sustainable jobs’ are considered to be, and how to access them. Communicating to youth about the myriad possibilities, sectors, and occupations they can pursue to capitalize on sustainable job opportunities is critical.

Student Energy recognizes that youth interested in participating in the clean energy economy may not be equipped with the right information to make informed choices about their career paths.⁵⁸ The British Columbia Council for International Cooperation (BCCIC) also notes in their annual report that the youth have a vital role to play in the global transition and thus must be empowered to participate in helping address the impacts of climate change and inform decisions about their futures.⁵⁹

Example: Green Jobs Toolkit for High School Career Educators, British Columbia

In collaboration with Electricity Human Resources Canada, the BCCIC’s youth-led climate change branch developed a toolkit for career education and planning professionals in high schools to increase interest and awareness about the viability of green jobs. This toolkit included resources, ideas, and a compendium of green jobs and education pathways to youth exploring career options, as well as a Green Jobs Matching Quiz to help guide youth towards green career paths.⁶⁰

⁵⁸ Student Energy, “Career Training Program.” https://studentenergy.org/program/career_training_program/

⁵⁹ British Columbia Council for International Cooperation (BCCIC), *A Youth Response to a Changing Climate: Annual report 2020/21* (2021). <https://www.bccic.ca/wp-content/uploads/2021/11/BCCIC-Climate-Change-Annual-Report-2020-2021.pdf>

⁶⁰ BCCIC, “BCCIC Climate Change.” <https://www.bccic.ca/climate-change-team/>

Not only will informing youth about possible career paths generate interest in sustainable careers, but creating a monetary incentive can help increase the likelihood that youth will take up the kind of education pathways that lead to decent jobs and help address skills shortages. The Climate Emergency Unit has also proposed the idea of establishing a Canadian Youth Climate Corps, similar in concept to the recently announced American Climate Corps.

Example: American Climate Corps, United States

In 2023, the U.S. announced the American Climate Corps, aiming to train 20,000 young people in clean energy, conservation, and climate resilience related skills. The program is meant to mobilize a generation of clean energy, conservation, and resilience workers.⁶¹

The Government of Canada should create a tuition credit program to entice youth towards the top sustainable job occupations anticipated to be in demand in the next 10 years. Labour market data would need to be analyzed, and youth, education and training institutions, and employers would be needed to be consulted. Such consultation should aim to ensure these education pathways manifest in careers by ensuring that education and training institutions have the capacity to deliver and meet an influx in demand for certain education pathways; that programs appeal to youth and result in uptake; and that employers have vacancies and a need for trained workers. Such a program should be targeted in particular toward youth belonging to equity-deserving communities to ensure the workforce of the future reflects Canada’s diverse population.

Example: Learn and Stay Grant, Ontario

The Ontario Learn and Stay Grant provides funding for tuition, fees, books, and supplies for students entering priority programs in priority communities in Ontario. The program incentivizes recent graduates to stay in the communities they studied in to help communities get the workers they need for in-demand professions.⁶²

⁶¹ The White House, “FACT SHEET: Biden-Harris Administration Launches American Climate Corps to Train Young People in Clean Energy, Conservation, and Climate Resilience Skills, Create Good-Paying Jobs and Tackle the Climate Crisis,” news release, September 20, 2023. <https://www.whitehouse.gov/briefing-room/statements-releases/2023/09/20/fact-sheet-biden-harris-administration-launches-american-climate-corps-to-train-young-people-in-clean-energy-conservation-and-climate-resilience-skills-create-good-paying-jobs-and-tackle-the-clima/>

⁶² Government of Ontario, “Ontario Learn and Stay Grant.” <https://www.ontario.ca/page/ontario-learn-and-stay-grant>

3.1.6 Support newcomers to participate in the workforce by improving credential recognition

According to the 2021 census, newcomers accounted for 23% of the population, represent 75% of population growth and nearly 100% of the workforce growth, and contribute significantly to our number of physicians, engineers and business owners.⁶³ Immigrants are eligible to enter Canada through several different pathways including Federal Skilled Worker or Trades program and the Canadian Experience Class. These two pathways are meant to attract skilled workers using a points-based system with six criteria to estimate a given individual's anticipated success for establishment in Canada. However, there is evidence that newcomers experience barriers to fully integrating into the workforce upon arrival. For instance, 44% of internationally trained engineers in Ontario are not employed as engineers.⁶⁴ While Canada may have effective mechanisms to recruit newcomers, follow-through is needed to ensure that they are able to utilize the skills for which they were sought.

Presently, Canada's Foreign Credential Recognition Program supports the labour market integration of newcomers by simplifying the process of credential recognition, providing support and loans to newcomers to pay for services, and helping newcomers gain work experience.⁶⁵ This program was introduced recognizing the challenges newcomers faced in having their education, skills, and other credentials recognized as being equivalent to Canadian credentials – especially in regulated occupations.

Example: Legislation to help newcomers start their careers, Ontario

The Ontario government proposed legislation that would help address labour shortages by making it easier for internationally trained immigrants to start careers in their profession. The proposed legislation would remove requirements for Canadian work

⁶³ Immigration, Refugees and Citizenship Canada, "Canada welcomes historic number of newcomers in 2022," news release, January 3, 2023. <https://www.canada.ca/en/immigration-refugees-citizenship/news/2022/12/canada-welcomes-historic-number-of-newcomers-in-2022.html>

⁶⁴ Future Skills Centre, *Employment Gaps and Underemployment for Racialized Groups and Immigrants in Canada: Current findings and future directions* (2020). <https://fsc-ccf.ca/research/employment-gaps-and-underemployment-for-racialized-groups-and-immigrants-in-canada/>

⁶⁵ Employment and Social Development Canada, "Funding: Foreign Credential Recognition Program – Overview." <https://www.canada.ca/en/employment-social-development/services/funding/foreign-credential-recognition.html>

experience when attempting to get licenced in certain regulated professions and trades such as law, accounting, architecture, engineering, electrical and plumbing, as well as reduce duplicative official language proficiency testing.⁶⁶

The Government of Canada should strengthen Canada’s Foreign Credential Recognition Program ensure newcomers have fair and equal access to sustainable jobs. The mandate of this program could be expanded to help newcomers gain soft skills, language training, focusing on upskilling which involves building off existing skills rather than retraining entirely. Additionally, the Government of Canada should and work with provinces, territories, and regulatory bodies and employers, particularly those in sustainable occupations, to further accelerate credential assessment and recognition.

Example: Assessment and Recognition of Foreign Professional Qualifications Act, Germany

In 2012, Germany developed the Assessment and Recognition of Foreign Professional Qualifications Act. The intention was to mitigate unemployment amongst those who have foreign vocational qualifications and attract high-skilled workers. Under the act, 600 occupations are subject to a standardized assessment procedure. The compensatory measure of the act is fulfilled by Network Integration through Qualification (Network IQ) which builds on four priority areas: counselling for credential recognition and job training, bridge training schemes, development of intercultural competence, and regional networks.⁶⁷

3.1.7 Implement the Sustainable Jobs Training Centre to serve as a central research, analysis, and resource hub

The 2022 Fall Economic Statement announced \$250 million in funding for Employment and Social Development Canada to help Canadian workers thrive in the economy of the future, part of which was meant to establish a Sustainable Jobs Training Centre. According to the announcement, the Training Centre would bring together workers,

⁶⁶ Government of Ontario, “Ontario to Ban Requirements for Canadian Work Experience in Job Postings,” news release, November 9, 2023. <https://news.ontario.ca/en/release/1003798/ontario-to-ban-requirements-for-canadian-work-experience-in-job-postings>

⁶⁷ OECD, *Multi-Level Governance for Migrant Integration: Policy instruments from Austria, Canada, France, Germany and Italy* (2022). https://www.oecd-ilibrary.org/urban-rural-and-regional-development/multi-level-governance-for-migrant-integration_efeeda9d-en

unions, employers, and training institutions to examine the skills of the labour force today and forecast future skills requirements to help 15,000 workers upgrade or gain new skills. No further announcements regarding the Training Centre have been made at the time this report was written.

The Sustainable Jobs Training Centre should be implemented adjacent to the proposed Sustainable Jobs Secretariat, working collaboratively to achieve common objectives. In [Part I of the Blueprint](#), Pembina and the CLC recommend that one of the Sustainable Jobs Secretariat's dedicated functions was in relation to workforce development. The Sustainable Jobs Training Centre could augment the workforce development function of the Secretariat by providing a central research, analysis and resource function to inform workforce development planning. The Training Centre could focus its efforts on ensuring the industrial and regional development plans have the necessary regionally relevant workforce development plans in place to help achieve Canada's climate commitments. Part of the work of the Training Centre would be to strike net-zero industrial policy working groups in provinces and territories, discussed in section 4.2.2.

This moment offers an opportunity to reexamine how to better coordinate across sectors to advance sustainable growth, and forecast labour markets and required skills training. The federal government should explore how the Sustainable Jobs Training Centre can support local, place-based systems and bring together various levels of government with labour, employers and training providers, including union training centres and not-for-profit colleges.

3.2 Provide income security and programs that help workers find new jobs or retire early

Key findings

- ➔ Canada's social security system must be strengthened and made more flexible to respond to labour market shifts that occur alongside the transition to net-zero.
- ➔ Measures must be taken to prevent workers from losing their hard-earned pensions if their employer become insolvent.
- ➔ Workers nearing retirement age should have access to support to transition out of the workforce when reskilling is no longer a practical solution.

Employment Insurance in Canada

Employment Insurance (EI) is one of the main pillars of Canada’s social safety net, providing temporary supplemental income to workers while they look for employment. ‘Regular’ EI provides benefits to individuals who lose their jobs and who are able to work but cannot find a job.⁶⁸ Benefits cover up to 55% of earnings up to an insurable earnings amount of \$61,500 for a maximum of 45 weeks.

Interviews and focus groups revealed that workers supported social security measures like EI, and viewed it as a necessity in the event of layoffs. Most workers hoped that there would be enough jobs created to avoid reliance on EI as the primary solution to support workers. Some workers hesitated at the notion of increasing EI-related funding – noting that government spending is not ‘free money’ and that in reality, taxpayers fund many government investments through their taxes. Workers felt the duration of EI was critical in its success – and government should endeavour to find the balance of weeks on claim that would allow them to find a new job, but not so long as to delay the job searching process.

Events such as the COVID-19 pandemic have brought into light the potential shortcomings of the current EI system. Research by the Institute for Research on Public Policy found that the system is strained and no longer meets the needs of the Canadian population due to coverage gaps and complexity.⁶⁹ The Government of Canada has committed to reviewing the EI system, and as part of this review, must consider the potential labour impacts that will come alongside the transition to net-zero.⁷⁰

The Centre for Future Work predicts that normal adjustments to employment patterns, regular job turnover, voluntary job change, and retirement will cushion the effects of transition for fossil fuel workers.⁷¹ The modelling in Section 2.3 shows net job growth as a result of the transition to a clean economy; however, in a scenario where there are no economic and labour interventions, some occupations will be impacted more than

⁶⁸ Employment and Social Development Canada, “EI regular benefits.” <https://www.canada.ca/en/services/benefits/ei/ei-regular-benefit.html>

⁶⁹ Institute for Research on Public Policy, *How to Modernize Employment Insurance: Toward a simpler, more generous and responsive program* (2022). <https://irpp.org/research-studies/how-to-modernize-employment-insurance-toward-a-simpler-more-generous-and-responsive-program/>

⁷⁰ Employment and Social Development Canada, *Modernizing Canada’s Employment Insurance (EI) Program: Consultations – The what we heard report (Phase 1)* (2022). <https://www.canada.ca/en/employment-social-development/programs/ei/ei-list/reports/consultations-what-we-heard-phase1.html>

⁷¹ Jim Stanford, *Employment Transitions and the Phase-Out of Fossil Fuels* (Centre for Future Work, 2021). <https://centreforfuturework.ca/2021/01/18/employment-transitions-and-the-phase-out-of-fossil-fuels/>

others, particularly those in natural resources-related occupations, trades, transport and equipment operators. In any scenario, a sound transition plan should have an effective income security system that bridges the gap between jobs.

The current EI system in Canada is not flexible enough to respond to the needs of workers impacted by industry changes. For example, it does not easily enable workers to retrain while receiving EI. The Task Force on Just Transition for Canadian Coal Power Workers and Communities notes that EI may be incompatible with severance and supplemental income, resulting in penalties and claw backs. Regional equations for EI mean workers in different provinces receive inconsistent benefits despite facing face similar challenges.⁷² In response to this challenge, the Task Force recommended the creation of an income support stream that would address workers' concerns about receiving adequate support as they transition to new employment.

An important consideration is that the CERB system, implemented through the COVID-19 global pandemic, demonstrates income supports can be built rapidly to match an emerging circumstance. Lessons from the design and implementation of CERB could inform rapid changes to EI or other income supplements to respond to large-scale disruption.

Strengthening and modernizing EI would mean simplifying program eligibility rules, increasing the generosity of benefits, responding more effectively to economic shocks, addressing systemic exclusions such as self-employed workers, and improving the effectiveness of 'working-while-on-claim' provisions and training support programs.⁷³

Role of pensions in energy transition

Pensions, along with wages, working conditions and benefits, are core to job quality. Across the country, Canadians have access to a public pension through Canada Pension Plan or Quebec Pension Plan. Funded by workers over the age of 18, these pensions, together with Old Age Security (OAS), form the backbone of retirement security in Canada.

⁷² Task Force on Just Transition for Canadian Coal Power Workers and Communities, *A Just and Fair Transition for Canadian Coal Power Workers and Communities* (2018).

<https://www.canada.ca/en/environment-climate-change/services/climate-change/task-force-just-transition/final-report.html>

⁷³ *How to Modernize Employment Insurance*, 11.

In addition to the CPP/QPP many unions have negotiated pensions as a condition of a collective agreement. Typically, private pensions are jointly funded by employers and employees, and can be administered jointly, administered by the employer, or pooled into a larger pension fund. Historically private pensions have been defined benefit plans in which retirees are guaranteed fixed payments upon retirement. More recently, some pensions are defined contribution plans in which employers and employees contribute defined amounts but benefits are not defined.

Pension security is an extremely important issue for workers and the economy more broadly. In the interviews and focus groups, workers at every point in their career stressed that pension security was of paramount importance. For workers, pensions are deferred wages that they are counting on at retirement. For the economy more broadly, they provide security to future retirees and are the basis on which future retirees make financial decisions during their working lives. Insecurity in pensions not only harms retirees, but also damages the economy if retirees cannot afford to maintain spending.

Today, less than 40% of workers have access to a pension plan at work. In the private sector fewer than 25% of workers have a workplace pension. For workers under the age of 29 the number drops to just 13%.⁷⁴ It is no surprise that private sector workers of all ages are keen to protect their pension, particularly when they hear messages that the future of their industry is uncertain. The Centre for Future Work raises the idea that normal attrition and retirement can absorb significant shocks to the labour market. Importantly, those workers going into retirement must be confident in their pension.⁷⁵

Services for workers

Workers need a place to go for information, resources and support before, during, and after they become displaced. Workers require personalized and accessible services in communities or online; help with identifying current skills, interests and potential re-employment pathways; and access to and information about other support programs. At a workplace level, workers need skills assessments in advance of layoffs. Older workers may have different skills, interests and abilities than younger workers, and may require more assistance and guidance when searching for jobs.

⁷⁴ Canadian Labour Congress, “Our Solutions to the Pension Crisis.”
<https://canadianlabour.ca/research/issues-research-our-solutions-pension-crisis>

⁷⁵ *Employment Transitions and the Phase-Out of Fossil Fuels*, 86.

Recommendations

3.2.1 Improve the responsiveness of Employment Insurance to enable workers to retrain while receiving income support

In Budget 2021, the Government of Canada announced an EI Training Support Benefit, where workers could receive up to four weeks paid leave at 55% of average weekly earnings taken within a four-year period. This program was never implemented; however, the Government of Canada should pursue developing such a program with renewed parameters. In essence, workers should be eligible to retrain while receiving EI, which would cover almost a third of the average wage for the duration of the training program.

According to our modelling, the Government of Canada would need to budget \$2.9 billion to pay for such a program, which could be funded through an increase on EI premiums, rather than increasing income taxes. When modelling a strengthened Employment Insurance program combined with retraining subsidies, unemployment rates fall by 2% and wages increase by \$1.21 per hour for natural resource occupations in 2035.

3.2.2 Extend eligibility of Work-Sharing agreements to industries experiencing long-term decline

Work-Sharing agreements are agreements between employers, workers, and Service Canada that allow workers to work reduced hours to avoid complete layoffs.⁷⁶ These types of agreements are occasionally used during a work slowdown, can last up to 36 weeks, and are not applied to industries experiencing long-term decline. There are a number of instances where special measures have been applied to Work-Sharing agreements to provide additional support for affected businesses due to economic downturns, natural disasters, and emergencies. Special measures have been used to support businesses affected by wildfires, the COVID-19 pandemic, and trade disputes in the steel, aluminum, and forestry sectors.

The challenge is that the transition to net-zero is not an economic shock — rather, it is a long-term, global, unavoidable trend that our economy must reckon with. Workers in

⁷⁶ Employment and Social Development Canada, “Work Sharing Program.” <https://www.canada.ca/en/employment-social-development/services/work-sharing.html#wb-cont>

industries that do not adjust or diversify to become net-zero compatible may become more vulnerable to sudden layoffs if Work-Sharing agreements are not available.

The Government of Canada should extend the eligibility of the Work-Sharing agreement model to include industries experiencing long-term decline. This would allow workers in a declining industry to work reduced hours, receive EI to maintain their incomes, but use the balance of their reduced hours for training. This gives workers and their families confidence to train or upskill for a new job before their past job ends. It also limits the time workers spend out of the labour force, and lets workers and their families plan their lives.

The Government of Canada could modify special measures used in the past to respond to economic shocks through the use of Work-Sharing agreements to mitigate layoffs during industry decline. In practice, an employer with a clear closing date, such as a coal generating station operator, could reduce individual worker's hours, allowing workers to upskill or train while they continue to work reduced hours at the coal station.

3.2.3 Ensure the Sustainable Jobs Secretariat is equipped to direct workers to programs and services

As recommended in [Blueprint Part I](#), one of several core roles of the Sustainable Jobs Secretariat should be to provide a one-stop shop for workers seeking information, resources, and support in regards to employment transitions. A programs and service delivery team would help connect workers to existing programs and funding to support re-employment (e.g., job banks, job seeking skills such as resume building or skills assessments, jobs matching), retraining, social security, and mental health. The Secretariat should provide personalized online and virtual services to ensure workers from all parts of Canada are able to access resources.

This programs team would also work with the Sustainable Jobs Training Centre to develop resources and tools to help inform workers about pathways to sustainable jobs. This team would manage and update a repository of information and programs available to workers at both the federal and provincial levels in their home province.

Given the anticipated duration of transition, a centralized virtual resource for workers would have only limited efficacy. The programs and services team would be tasked to develop options, through consultation with workers and the Sustainable Jobs Partnership Council, on the best way of establishing brick-and-mortar services located directly in affected communities, to ensure convenient and locally relevant solutions are put in place over the medium-to-long term.

Example: Sask Coal Transition Centre, Saskatchewan

The Sask Coal Transition Centre was developed in partnership with UMWA and IBEW locals in the coal communities providing career, training, business, finance, retirement, and mental health support. These centres are funded through the federal Coal Community Transition Initiative and administered by regional development agencies in response to the coal transition.⁷⁷

Example: Edge Up — Calgary Economic Development, Alberta

Calgary Economic Development's Edge Up 2.0 program provides training for 320 professionals displaced because of structural change in the oil and gas sector for in-demand jobs in the digital economy, in partnership with the Information and Communications Technology Council, as well as local post-secondary institutions.⁷⁸

3.2.4 Protect worker pensions when industries become insolvent

Pension security was the single highest-rated priority for workers in the survey. The history of Nortel⁷⁹ and Sears⁸⁰ pension insolvency issues are sobering, especially for workers worried about what future changes might mean for their employer's financial health. Governments too have recognized the importance of pensions. For example, in 2008 governments in Canada and the United States helped to maintain the solvency of pensions in the then-struggling auto sector.⁸¹

Bill C-228, the *Pension Protection Act* received royal assent April 27, 2023. The legislation increases protections for pensioners in the instance of a company's insolvency and bankruptcy; however, the bill does not come into force until April 27,

⁷⁷ UMWA 7606 and IBEW 2067, "Sask Coal Transition Centre."

<https://www.linkedin.com/company/saskcoal/>

⁷⁸ Calgary Economic Development, "Edge Up 2.0: A Scaling Opportunity." <https://edgeupyyc.com/>

⁷⁹ Julius Melnitzer, "Nortel pensioners lose \$200M refund battle with Ontario's PBGF," *Benefits Canada*, January 9, 2020. <https://www.benefitscanada.com/news/bencan/nortel-pensioners-lose-200m-refund-battle-with-ontarios-pbgf/>

⁸⁰ David Paddon, "Representative for 17,000 Sears Canada retirees says insolvency laws are unjust," *CTV News*, June 8, 2021. <https://www.ctvnews.ca/business/representative-for-17-000-sears-canada-retirees-says-insolvency-laws-are-unjust-1.5461559>

⁸¹ Shawn McCarthy, Greg Keenan and Karen Howlett, "Taxpayers fork out billions for GM pension aid," *The Globe and Mail*, May 22, 2009. <https://www.theglobeandmail.com/globe-investor/taxpayers-fork-out-billions-for-gm-pension-aid/article1205657/>

2027. The Government of Canada should take steps to ensure the security of pensions between now and April 27, 2027. Government should also commit to ongoing monitoring and review of C-228 once it comes into force, to ensure it has desired effects. Pension protection should be a subject of consideration by the Sustainable Jobs Partnership Council, and Sustainable Jobs Action Plans should speak to pension solvency in transition industries.

3.2.5 Create a pension bridge for workers nearing retirement age

The Just Transition Task Force noted in their report that many older workers feel vulnerable on the job market, recognizing that employers would be hesitant to retrain them as they have comparatively fewer working years remaining, while retiring early may not be financially possible.⁸²

The Government of Canada should develop a new program that would assist workers to retire early by providing a financial bridge to the age at which they would receive their retirement benefits. Given the diversity of pension plans, this would need to be adjusted in collaboration with unions, employers, provincial governments and pension administrators. This program would provide retirement bridge for workers nearing retirement age in high-emitting industries where re-employment options do not readily exist. More research would be needed to determine the qualifying age and duration of such a program.

Example: Bridge to Retirement, Alberta; Germany

Alberta's Coal Workforce Transition Program provides financial assistance for retirement; workers aged 53 and older with over 10 years of service in the coal sector receive up to 75% of pension for up to 72 weeks. Germany also offered an early retirement payment to employees aged 58 and older who lost their jobs due to the phase-out of coal power plants.

3.2.6 Provide a worker relocation assistance fund

In both surveys and focus groups, workers noted that they wanted to stay in their communities and continue to use their skillsets. Accomplishing both of these objectives together may not always be possible.

⁸² *A Just and Fair Transition for Canadian Coal Power Workers and Communities*, 20.

A relocation assistance fund could be created for workers who are impacted by industries experiencing long-term decline because they are no longer compatible in a net-zero economy and their skills no longer have an application in their community. Such a fund would assist workers with costs associated with moving.

The costs associated with moving may be different for workers in rural, remote, and resource-dependent communities. Booms and busts in a community's cornerstone industry have wide-reaching impacts, such as decreasing home values, that can make it more difficult for workers to leave to find work. This must be taken into consideration as the Government of Canada designs a relocation assistance fund.

Example: Relocation voucher, Alberta

Alberta's Coal Workforce Transition Program provides a \$5,000 dollar relocation voucher for workers moving over 40 km to help with moving expenses.⁸³

3.3 Enable a framework to uphold good job standards in the clean economy

Key findings

- ➔ Protecting workers' ability to organize and negotiate collective agreements results in cross-sectoral and society-wide benefits.
- ➔ Reforming labour law can help promote union and worker organizing in the clean economy, resulting in better wages, benefits, and health and safety standards for workers throughout these sectors.

The importance of unions and collective bargaining

Canada's Sustainable Jobs Plan defines sustainable jobs as meeting two key objectives: they must be compatible with a net-zero economy and they must be decent, well-paying, high-quality jobs that can support workers and their families over time and includes such elements as job security, social protection, and social dialogue.

⁸³ Government of Alberta, "Support for Albertans affected by coal phase out."
<https://www.alberta.ca/support-for-coal-workers>

Established energy sectors, such as oil and gas and electricity, have, in many cases over decades, developed strong unionization rates entrenching higher wages, better benefits, and better health and safety protections. New sectors, by nature of their newness are less likely to be organized and have the benefits of unionization.

By attaching labour standards to new clean technology Investment Tax Credits, the government is tacitly acknowledging that not all low-carbon work is automatically good work, and that policy tools to encourage the use of union labour, or paying workers the equivalent of a union wage are necessary to increase job quality.

This section of the report addresses ways to raise labour standards in emerging net-zero sectors through lowering the barriers for workers to form a union. Unions raise wages⁸⁴ and increase job quality standards for members of the union, and greater union density raises standards for the broader workforce through the “union wage premium”. This principle that acknowledges that broad unionization creates spill-over benefits for non-union workers.

As noted in [Part I of the Blueprint](#), the protection of a collective agreement is another essential component. Collective agreements address elements of job quality that are broader than wages: issues like scheduling, leave entitlement, training, health and safety issues, and “layoff and callback provisions” are all non-monetary factors that have significant impacts on job quality. Layoffs could be particularly important since it is reasonable to expect that worksites may slow or cease operations while new technologies or systems to decarbonize are put in place. During this time workers may be laid off and will need to be called back when operations start up. Collective bargaining that outlines how this will happen is essential to workers’ job security.

While worker health and safety is regulated by the federal, provincial and territorial governments, collective agreements can also include clauses related to health and safety making work safer for both workers and the general public. The protection of training, expertise and professional support from a union can also make it easier for

⁸⁴ Statistics Canada, “Employee wages by job permanency and union coverage, annual,” January 6, 2023. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410006601>

workers to make full and effective use of joint health and safety committees, follow work refusal processes effectively and ensure workplaces are safe.^{85,86}

The most prominent benefit of collective bargaining is compensation. Recent events continue to provide evidence that the benefits won by unions through collective bargaining positively impact non-union workers. For example, recent bargaining wins achieved by Unifor in the auto industry were felt by non-union workers at Honda's Alliston plant who received an 11% increase in wages and competitive premium payments.⁸⁷ Similarly, negotiations between the United Auto Workers (UAW) and the Big 3 automakers (General Motors, Ford, and Chrysler) have translated into wage increases for non-union workers at Toyota in Alabama and Kentucky, who received increases in pay.⁸⁸ These are recent demonstrations of the union wage premium. In short, increased union density benefits union and non-union workers alike.

Labour laws and sustainable jobs

The most effective way to preserve job quality in the net-zero economy is to reform outstanding flaws in Canadian labour laws and regulation in order to support workers and union organizing. The Canada Labour Code, Canada's federal labour legislation, applies to sectors that are regulated federally, not those regulated provincially. However, Canada Labour Code reforms can send a powerful message to provincial governments. Furthermore, attaching labour conditions to government spending, as discussed in Section 4.2, raises labour standards.

Removing barriers to worker organizing, through reforms to federal, provincial and territorial labour codes can help more workers access the benefits of unionization,

⁸⁵ Aaron Sojourner, "Unionized workers are more likely to assert their right to a safe and healthy workplace," *The Conversation*, September 20, 2020. <https://theconversation.com/unionized-workers-are-more-likely-to-assert-their-right-to-a-safe-and-healthy-workplace-144718>

⁸⁶ Lynda Robson, Victoria Landsman, Desiree Labour-Villamil, et al, *Updating a Study of the union effect on safety in the ICI construction sector: A report prepared by the Institute for Work and Health for the Ontario Construction Secretariat*, (Institute for Work and Health, 2021). https://www.iwh.on.ca/sites/iwh/files/iwh/reports/iwh_report_union_safety_effect_construction_update_2021.pdf

⁸⁷ Kim Phillips, "Honda employees in Alliston to receive 11% wage boost," *CTV News*, November 10, 2023. <https://barrie.ctvnews.ca/honda-canada-boosts-wages-and-compensation-at-alliston-ont-facility-1.6640556?cache=zyujtxhn>

⁸⁸ Dan DiMaggio, "Big 3 Buckled as Stand-Up Strike Spread," *Labour Notes*, October 31, 2023. <https://labornotes.org/2023/10/big-3-buckled-stand-strike-spread>

including union wage advantages, and achieve other societal objectives that accompany more prevalent decent work.

Example: Task Force on Worker Organizing and Empowerment, United States

The U.S. Task Force on Worker Organizing and Empowerment was struck to mobilize federal policies, programs and practices to empower workers to organize and successfully bargain with their employers.

Example: Partnership for Workers' Rights, United States and Brazil

The U.S. and Brazil launched a joint global initiative to advance rights of working people around the world called the Partnership for Workers' Rights. This is aimed at increasing workers' awareness of rights, elevating role of workers in the energy transition, collaborating with partners on a worker-focused agenda at global forums like G20 and COP, supporting labour-related technical cooperation programs, pursuing new efforts to empower workers in the gig and platform economies, and engaging private sector partners on approaches to create decent work in the supply chains and address discrimination.

Actions to consider

3.3.1 Make key amendments to labour codes in support of unions and worker organizing

Increasing union density in the low-carbon economy boosts wages, benefits and raises standards for occupational health and safety for all workers. The following recommendations will help remove barriers to ensure workers can organize more easily should they wish to.

The Sustainable Jobs Partnership Council, with the support of the secretariat, should review federal, provincial and territorial labour codes and propose tools to make it easier for workers to form or join a union. These actions are in line with Canada's ratification of key International Labour Organization conventions, including C-087:

Freedom of Association and Protection of the Right to Organise Convention, 1949 and *C-098: Right to Organise and Collective Bargaining Convention, 1949*.^{89,90}

The following chart offers a starting point for that review.

Recommended changes to labour codes in Canada

Recommendation	Details
Increase enforcement of labour codes to deter unfair labour practices	Unfair labour practices ⁹¹ undermine the integrity of the Canada Labour Code and provincial labour codes. Increased enforcement of labour codes would hold employers to account and create a more level playing field between employers.
Use a single-step card check to certify unions	<p>In many Canadian jurisdictions, certifying a new union is a two-step process in which a required number of workers submit copies of their signed membership cards to an industrial or labour relations board, followed by a vote of members. This two-step, duplicative process is complex, and gives employers multiple opportunities to intimidate workers or otherwise attempt to create roadblocks to unionization.</p> <p>A single-step card check simplifies this process. Fifty percent plus 1 of workers submitting their membership cards results in the certification of the union, granting the union the ability to bargain on behalf of workers. This is a simpler route to certifying a union and an accurate measure of the will of the workers.</p>
Place a formal five-day limit on boards scheduling votes to certify unions	In jurisdictions where two-step union certification applies, labour or industrial relations boards may take several weeks to deliberate as to whether a union vote is required in addition to submitting membership cards. Ontario's requirement to schedule a vote within five days of a minimum number of cards filed should be extended across Canada to prevent employer interference, such as intimidation, firing of activists, and other actions intended to defeat a union drive following the presentation of cards.

⁸⁹ International Labour Organization, "C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)." https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312232

⁹⁰ International Labour Organization, "C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)." https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C098

⁹¹ Canada Industrial Relations Board, "Labour Relations – Unfair Labour Practice." <https://cirb-ccri.gc.ca/en/about-appeals-applications-complaints/labour-relations-unfair-labour-practice>

Prohibit the use of replacement (scab) workers during strike action	When a union votes to take strike action after reaching a standstill in collective bargaining negotiations with their employer, workers may withdraw their labour. Replacement or “scab” workers are workers brought into a workplace during a strike. This undermines the bargaining power of workers during a strike or lockout, disincantizing employers to bargain quickly and efficiently. The Canadian Labour Code and provincial labour codes should prohibit the use of replacement workers during strike action.
Require first contract arbitration where it does not already exist	The federal government should require that employers agree to a first contract arbitration process, where a first agreement be set by an arbitrator, in the event a newly formed union and employer are unable to reach a contract after a set amount of time. This process is already required by multiple provinces.
Require employers to list of workers with organizing unions	The federal government should require that employers receiving public funding contractually agree to share lists of workers with organizing unions, enabling them to communicate and share information more effectively

Additionally, the federal government should explore piloting these policies in emerging net-zero sectors, potentially as labour conditions attached to federal supports.

Policies to pilot in emerging clean energy sectors

Recommendation	Details
Ban contract flipping as workplaces transition	It is important to ensure that industrial decarbonization and technological and process changes are not used by unscrupulous employers to “contract flip”. Contract flipping refers to employers subcontracting or regularly changing contractors to unfairly set back bargaining, cut wages, cut benefits, or replace unionized workers with an ununionized workforce. Labour codes should ensure contract flipping is banned to support workers through transition.
Strengthen successor rights	Successor rights allow a union to continue to represent workers under a collective agreement when a business is sold or divested. It ensures that even if the owner changes, workers cannot lose the protections they’ve gained, if they continue to do the same work in the same place. Where relevant, successor rights should be strengthened.
Pilot sectoral bargaining	Sectoral bargaining is the practice of applying or arriving at a single set of bargained labour standards for an entire industry, across all employers and worksites. Piloting a sectoral agreement in a new, low-carbon, multi-site, multi-employer sector, like solar, would set a level playing field for employers, ensure fair wages and benefits and high safety standards across regions, and increase the job quality standards across the industry.

These reforms and policies put a premium on worker democracy, allow workers to bargain for higher wages and better working conditions, and create broader economy-wide benefits through the union wage premium.

3.4 Engage with workers about their futures

Key findings

- ➔ Workers require two-way communication — both in sharing their perspectives to inform policy and receiving direct information about paths to net-zero and decisions that will impact them.
- ➔ Better information sharing and follow-through on action has the potential to build back trust between workers and government.
- ➔ Governments should engage workers through their unions as part of a commitment to social dialogue when developing plans that impact workers.

Engaging workers in the energy transition

Policies are only as good as the buy-in they receive from workers who will be most affected by them. Throughout the interviews and focus groups (see Section 2.2), workers described the mistrust they felt towards government that could prevent support and slow progress towards meeting climate targets. These same conversations also revealed valuable insights into what workers need to see in policies to support them, and how messages related to transition should be communicated.

Many workers were skeptical or cynical about the feasibility of achieving net-zero and government’s ability to deliver on sustainable jobs commitments. Throughout interviews and focus groups, workers shared concerns about government’s intentions and use of taxpayer dollars. Some workers also doubted the government’s interest hearing workers’ concerns.

“It’s really hard to trust them or believe that what people bring to the table is going to be listened to. And I think they don’t always listen. They have a select group, and you have to really widen that group to make sure everyone has been given a voice.”

— Worker from Alberta

The lack of trust in the consultation process is based in part on a perception of government inaction. Workers in the fossil fuel sectors told researchers they have already seen government representatives visit their communities and hold discussions, town halls, or presentations on this topic, with no subsequent impact.

“Governments promise a lot, but they don’t do anything.”

— Worker from Alberta

Workers want to see themselves and their unions at the table with government, and they also need to see follow through on promises of support and job creation.

Workers and climate change

Workers are often on the receiving end of highly charged, conflicting information about the future of Canada’s economy. A poll undertaken by the CLC in the summer of 2023 found that messages that positively influenced worker attitudes toward climate change and sustainable jobs were those that emphasized investment in good, sustainable jobs and pointed to workers as holding the solutions to lead the country forward. The message focused on the role workers play in advancing climate solutions and the importance of skills training and decent work standards.

“Climate change-fueled wildfires, heatwaves, and extreme storms are harming our communities and creating uncertainty about the future. If decision-makers don’t work with us to tackle climate disasters now, we’ll be left behind. But workers in Canada have never shied away from a challenge — and climate change is no different. From creating reliable sustainable energy to building and renovating homes that keep us cool in summer and warm in winter to connecting our communities with electric transportation, working people have the tools to tackle climate change and keep our communities safe. Investing in skills training and sustainable union jobs that we can keep will improve the lives of workers and our families, spur innovation and economic growth, and combat climate change in the long term. Together, workers can create a thriving, safe future.”

— A Future that Works, CLC

The CLC’s “A Future that Works” campaign was launched to rally workers around the need to tackle climate change, advocating for the creation of good jobs in the process; it also calls on decision-makers to put a plan in place for workers.⁹²

Identifying trusted actors

Qualitative research with workers showed that workers in high-emitting sectors understand the need to fight climate change, and that this means changes in their work. Some workers were skeptical of government as a source of information on sustainable jobs and they preferred hearing information directly from their unions.

Unionized workers are accustomed to hearing from their union about challenging topics. They understand the work unions undertake on behalf of members and that unions are subject to internal democratic processes. Qualitative research undertaken for this report indicates that union involvement in policy development improved workers’ perceptions of solutions, believing unions to be their greatest advocates.

“That’s what the union is for; to protect their workers as much as they can, to negotiate with governments and companies to protect their working conditions, their pay, and their rights.”

— Camp worker, Alberta

A seat at the table for workers and unions is a concrete step forward, but discussion at the table must translate into real action. As a first step in gaining buy-in from workers, the government must engage with unions through social dialogue. Social dialogue is a global best practice, referring to “all types of negotiation, consultation or simply exchange of information between, or among, representatives of governments, employers and workers, on issues of common interest relating to economic and social policy.”⁹³ In practice, social dialogue requires clear two-way communication with workers and unions and is a pathway to strengthening trust.

⁹² Canadian Labour Congress, “A Future that Works.” <https://futurethatworks.ca/>

⁹³ International Labour Organization, “Social Dialogue.” <https://www.ilo.org/ifpdial/areas-of-work/social-dialogue/lang--en/index.htm>

EXAMPLE: Just Transition Unit, Taranaki Region, New Zealand

Partnerships have been a key component of just transition planning in New Zealand's oil and gas rich Taranaki region. Effective partnerships have increased reach, buy-in, implementation, and effectiveness of programs, and are supported by high-quality communication. Ongoing communication efforts to stakeholders are important for sustaining awareness and support.⁹⁴

Recommendation

3.4.1 Develop awareness and dialogue campaigns to inform and engage with workers about the energy transition

Too often, a challenge for workers stems from a lack of information: What is their employer planning? What does an industrial or regulatory change mean for them? When will they receive key information to plan for the future? Workers want to be engaged and understood, and to ensure their concerns are met.

The Government of Canada must engage with workers, primarily through unions, and proactively share information, forecasts, and research that will allow unions to understand the implications of policy directions. Unions can then engage their members directly and then communicate with other social partners on behalf of those workers.

In preparation for building a net-zero economy, workers, through their unions, must be engaged in national conversations at the Sustainable Jobs Partnership Council, in regional tripartite bodies, and in bargaining directly with employers. The proposed Sustainable Jobs Partnership Council should consult with labour beyond the members of the council to seek input and share information.

Engaging unions in no way guarantees that unions or workers will agree with government decisions. It does, however, build trust and create opportunities to understand issues, negotiate impacts on workers, and provide essential information about what a decision means so that employers and governments understand the consequences of decisions.

⁹⁴ LITMUS, *Research into partnership approaches for transition planning: Learning from the Taranaki 2050 Roadmap process* (2021), 5-6. <https://www.mbie.govt.nz/assets/research-into-partnership-approaches-for-transition-planning-learning-from-the-taranaki-2050-roadmap-process.pdf>

4. A Sustainable Jobs Blueprint: *Economy-focused actions*

Investments in training and social security alone are not enough to yield the greatest benefits of the transition to clean energy. A number of additional economy-focused actions are needed to create the conditions to grow sustainable jobs and industries.

This section of the report outlines the critical actions that will help create work, support communities and regions in transition, and empower industries to help Canada realize success through the clean energy transition while decarbonizing the economy.

This chapter outlines policies to consider across the following three economy-focused actions:

1. Invest in regions to build resilience in a net-zero economy
2. Develop net-zero industrial policy that creates conditions for thriving industries
3. Leverage private capital to support sustainable jobs

These actions are part of the broader sustainable jobs ecosystem and should be included alongside investments to support impacted workers. They are meant to cue the Government of Canada to specific challenges, propose potential solutions, and help direct the future approach to sustainable jobs action plans that take a holistic view of transition.

The actions outlined in each section stemmed from expert interviews. They will require further research, analysis and refinement to ensure they achieve the intended goal — and move Canada forward along its journey to support workers and communities, and achieve climate goals. The Sustainable Jobs Partnership Council and Sustainable Jobs Secretariat could take up the task of rounding out the actions outlined in this section.

4.1 Invest in regions to build resilience in a net-zero economy

Key findings

- Communities must be supported through transition to remain viable places for workers to live.
- Transforming regions has the potential to help achieve national economic and climate objectives, and cushion disruption.
- Measures must be developed to ensure Indigenous peoples are able to equitably participate in and benefit from the clean energy economy.

Understanding the need for a place-based approach

No single place in Canada will be affected by the transition in the same way. The supports needed to advance plans and projects that achieve sustainable jobs goals must be in line with the unique values, circumstances, challenges, and strengths of each province, territory, region, and community in question. Investments in provincial and regional economies are necessary to demonstrate federal commitment to achieving climate goals and creating jobs for workers.

A one-size-fits-all approach to regional development could create inequities on the path to net-zero. For example, the provincial economies of Alberta, Saskatchewan, and Newfoundland and Labrador are more reliant on fossil fuels for energy and economic activities and will see a greater scale of change.

Within each province and territory are distinct regions with unique geographic, social, and economic characteristics that influence what pathways are feasible. Resource development often takes place in more northern, remote and rural regions where economies are less diverse. Similarly, climate change affects different regions in different ways which can create additional hardships for places as they shift their economic base. Planning in each province must ensure that disparities between urban and rural and between southern and northern places are not exacerbated.

Regional development in the sustainable jobs context means that “all regions have the assets and capabilities to be successful and supporting places negatively impacted by

industrial transitions.”⁹⁵ It is crucial that communities are strengthened to ensure they remain viable places to live, and that transition planning does not assume workers are fully mobile and able or willing to move for new jobs. Leveraging natural assets and engaging with key stakeholders — particularly those who are connected to transitioning communities — can help achieve both local and national goals related to decarbonization and economic growth.⁹⁶

Status of federal initiatives

The Government of Canada announced Regional Energy and Resource Tables in the 2022 federal budget with the intention of working with individual provinces and territories to identify and advance promising opportunities that will help increase Canada’s competitive advantage in global supply chains, promote sustainable resource development, and grow regional economies. These Tables are one of the ten actions in the Government of Canada’s interim Sustainable Jobs Plan and work on them has begun, with different provinces and territories progressing at different speeds.

The Tables establish an important collaboration forum between the federal, provincial and territorial governments, and relationships between senior governments and different stakeholders and rights holders have begun to develop. However, the mandate of these Tables should be expanded to develop priority industries in a matter that advances regional development and sustainable jobs priorities. For example, a framework document released by the B.C Regional Energy and Resource Table does not bridge the gap between communities and workers in transitioning or declining industries with opportunities in the new sectoral investments and strategies that are presently being contemplated.⁹⁷

Investment and a mandate adjustment of these tables could ensure they continue to evolve to entice broader participation, ensure synergies are realized by bringing

⁹⁵ Tamara Krawchenko and Megan Gordon, “How Do We Manage a Just Transition? A comparative review of national and regional just transition initiatives,” *Sustainability*, 13 (2021). <https://www.mdpi.com/2071-1050/13/11/6070>

⁹⁶ Tamara Krawchenko and Megan Gordon, “Five lessons for managing a just transition from environmentally destructive industries,” *Policy Options*, August 25, 2021. <https://policyoptions.irpp.org/magazines/august-2021/five-lessons-for-managing-a-just-transition-from-environmentally-destructive-industries/>

⁹⁷ Natural Resources Canada, *British Columbia Regional Energy and Resource Table - Framework for Collaboration on the Path to Net-Zero* (2023). <https://natural-resources.canada.ca/climate-change/regional-energy-and-resource-tables/british-columbia-regional-energy-and-resource-table-framework-for-collaboration-on-th/british-columbia-regional-energy-and-resource-table-framework>

stakeholders and rightsholders together to develop joint solutions, and refocus on the sustainable jobs and regional development goals moving forward. Recommendation 4.2.2. discusses these ideas in greater detail.

Taking a rights-based approach to economic planning

Indigenous communities and economic development arms may face additional barriers, including the terms of the Indian Act, when accessing capital and credit, which can constrain their ability to have majority or full ownership of projects.⁹⁸ While First Nations, Metis, and Inuit entities are involved in nearly 20% of electricity infrastructure,⁹⁹ having greater shares of projects enables Indigenous communities to participate more fully in a clean energy economy through greater control over clean energy projects that take place on traditional territories and treaty areas.^{100,101,102,103}

More Indigenous ownership and control increases the likelihood that clean energy projects and major natural resource projects, such as critical mineral extraction, would be aligned with community and cultural values. This would facilitate higher levels of self determination, consistent with a rights-based approach grounded in the United Nations Declaration on the Rights of Indigenous People. Sacred Earth Solar offers additional guidance to policymakers and industry partners to move toward a just and sustainable future, including: building partnerships and enhancing collaboration; supporting sovereignty and self-sufficiency; creating fair and just energy solutions;

⁹⁸ First National Major Projects Coalition, “Advance Major Projects with Full Indigenous Participation to Grow Canada’s Economy,” June 7, 2023. Available at <https://www.renewcanada.net/advance-projects-with-full-indigenous-participation-first-nations-major-projects-coalition/>

⁹⁹ Leighton Gall, Chris Henderson and Terri Lynn Morrison, *Waves of Change: Indigenous clean energy leadership for Canada’s clean, electric future* (Indigenous Clean Energy, 2022). <https://climateinstitute.ca/wp-content/uploads/2022/02/ICE-report-ENGLISH-FINAL.pdf>

¹⁰⁰ Katarina Savic, *The Case for Investing in Clean Energy in Remote Communities: Recommendations on how to improve access to capital* (Pembina Institute, 2022). <https://www.pembina.org/reports/case-for-investing-in-clean-energy-in-remote-communities.pdf>

¹⁰¹ Leela Viswanathan, “Indigenous Engagement with Renewable Energy Projects,” *Indigenous Climate Hub*, June 15, 2021. <https://indigenousclimatehub.ca/2021/06/indigenous-engagement-with-renewable-energy-projects/>

¹⁰² Christina Hoicka, Katarina Savic, and Alicia Campney, “Reconciliation Through Renewable Energy? A survey of Indigenous communities, involvement, and peoples in Canada,” *Energy Research and Social Science* 74 (2021). <https://www.sciencedirect.com/science/article/pii/S2214629620304722>

¹⁰³ Jason Calla, *Improving Access to Capital for Indigenous Groups to Purchase Equity Stakes in Major Resource Projects: Reviewing existing approaches to inform a National Benefits-Sharing Framework* (First Nations Major Projects Coalition, 2021). https://fnmpc.ca/wp-content/uploads/FNMPC_Reviewing_Access_final.pdf

cultivating democratized energy systems; and, decolonizing and decentralizing energy systems.¹⁰⁴

Recommendations

4.1.1 Scale up the Futures Fund to support regional net-zero action plans and advance regional industrial policy priorities

The 2030 Emissions Reductions Plan included a commitment to establish a \$2-billion Futures Fund to support local and regional economic diversification in Alberta, Saskatchewan, and Newfoundland and Labrador. To date, no additional details have been released on how this fund will be administered.

This proposed Futures Fund scaled up and expanded Canada-wide, could support provinces and territories in their efforts to develop long-term place-based industrial strategies to grow key sectors and achieve net-zero by 2050. Such a fund would send a strong signal to provincial and territorial governments to encourage action.

This fund would enable provinces and territories to allocate resources towards clean energy priorities and sector strategies identified by working groups struck in each region to implement an industrial policy (discussed in more detail in Section 4.2.2). The fund would facilitate relationship-building and a deliberative democratic process among the federal, provincial and territorial governments and stakeholders to ensure that the fund reflects the unique conditions of each province and territory.

This ‘nationalized’ Futures Fund is similar in concept to the Climate Emergency Unit’s proposed \$20 billion Just Transition Transfer¹⁰⁵, and could similarly be divided between provinces and territories based on the level of decarbonization required; thus, provinces with higher emissions would receive a greater share of the fund, recognizing the amount of change anticipated.

¹⁰⁴ Melina Laboucan-Massimo, Farron Rickerby-Nishi, Nick Demeris and Shahed Shafazand, *Just Transition Guide: Indigenous-led pathways toward equitable climate solutions and resiliency in the climate crisis* (Sacred Earth Solar, 2023). <https://sacredearth.solar/just-transition-guide>

¹⁰⁵ Climate Emergency Unit, “We are calling for a new Just Transition Transfer.” <https://www.climateemergencyunit.ca/jtt>

Example: Provincial Growth Fund, New Zealand

New Zealand’s Provincial Growth Fund supports the economic diversification and transition of Taranaki by investing in local infrastructure, clean energy projects, and businesses.

4.1.2 Establish an economic diversification transfer for affected regions

A new economic diversification transfer should be allocated as a grant based on anticipated community transition impacts. Funding conditions would require that communities establish strong labour standards for work conducted as part of the grant. The objective of the fund would be to promote long-term economic transition capacity and support for communities. Where possible, these transfers should facilitate public ownership of projects to ensure that these projects are directed by the communities they serve.¹⁰⁶

Such a fund could finance net-zero compatible capital projects that emphasize anchoring regional economies, requiring projects to meet labour standards which could be defined or ideally bargained, creating new business clusters and infrastructure, as well as spin-off work and supply chains, and generating larger-scale sustainable employment. A second ‘stream’ of this fund could focus on diversification that advances broader community objectives, such as strengthening municipal services and social security supports, undertaking building retrofits, and/or establishing new community centres or attractions that draw workers — and keep workers — in communities and enhance livability.

Example: Green Future Fund, Denmark

Denmark’s Green Future Fund was created as a long-term transition funding source to help develop and deploy clean energy technology for communities, while creating jobs for affected workers.

¹⁰⁶ Hadiran Mertins-Kirkwood, Max Cohen, Isabella Pojuner, and Avi Lewis, *Don’t Wait for the State: A blueprint for grassroots climate transitions in Canada* (Canadian Centre for Policy Alternatives and UBC Centre for Climate Justice, 2023), 36. <https://policyalternatives.ca/publications/reports/dont-wait-for-the-state>

Example: Coalfields Regeneration Trust, Scotland

Scotland's Coalfields Regeneration Trust provides social support to former mining communities by allocating funds toward social enterprises, community service organizations, workforce development and training programs.

4.1.3 Create an Indigenous loan guarantee program as part of a National Benefits-Sharing Framework

The Government of Canada has taken steps to help increase Indigenous economic participation, including \$8.7 million to support engagement with Indigenous people toward the development of a National Benefits-Sharing Framework, and announced that the Canada Infrastructure Bank will provide loans to Indigenous communities to support the purchase of equity stakes in infrastructure projects.

A number of Indigenous organizations and allies have lobbied, and continue to lobby, for the government to finance an Indigenous loan guarantee program to help lessen the financial risks of Indigenous proponents and investors, enabling Indigenous communities and organizations to take on a greater share of or full project equity in clean energy projects.^{107,108} The Government of Canada should develop such a program and continue to engage with Indigenous peoples and experts to determine the structure and implementation details as part of their engagement on the National Benefits-Sharing Framework. Such a Framework must consider the need to improve socioeconomic outcomes and community capacity for Indigenous peoples in Canada in order for them to become partners and equal participants in the Canadian economy, as emphasized in the calls to economic prosperity outlined in the National Indigenous Economic Strategy for Canada.¹⁰⁹

¹⁰⁷ Goldy Hyder and Sharleen Gale, “Meeting Canada’s clean energy targets must include Indigenous partnerships,” *Business Council of Canada*, February 27, 2023.

<https://thebusinesscouncil.ca/publication/meeting-canadas-clean-energy-targets-must-include-indigenous-partnerships/>

¹⁰⁸ Christina Hoicka and Matthew Foss, “How Indigenous economic development corporations can support a just, low-carbon energy transition,” *The Conversation*, June 26, 2023. <https://theconversation.com/how-indigenous-economic-development-corporations-can-support-a-just-low-carbon-energy-transition-206976>

¹⁰⁹ National Indigenous Economic Strategy for Canada, *National Indigenous Economic Strategy for Canada 2022: Pathways to socioeconomic parity for Indigenous peoples* (2022). <https://niestrategy.ca/>

Note: While this report was being drafted, the Government of Canada announced its commitment to develop an Indigenous Loan Guarantee Program to help facilitate Indigenous equity ownership in major projects in the natural resource sector, with next steps to be announced in Budget 2024.¹¹⁰

4.2 Develop net-zero industrial policy that creates conditions for thriving industries

Key findings

- ➔ An industrial policy can create greater market certainty for industry and workers, and ensure that public funding is leveraged to grow and maintain sustainable jobs.
- ➔ Fostering the development of key sectors can help secure Canada’s competitive advantage by preventing labour and capital from leaving the country, and has the potential to absorb workers displaced through transition.
- ➔ Industrial decarbonization, paired with additional government policy instruments to favour cleanest suppliers and imports, can keep clean domestic industries in Canada.

Industrial policy puts in place the conditions to enable certain industries to succeed. Done right, industrial policy has the potential to create good jobs, establish new supply chains, foster the vitality of regions, and act as a buffer to change. It involves combining strategic policy tools that together help achieve desired outcomes — in this case, achieving net-zero by 2050 and growing sustainable jobs.

According to the Transition Accelerator, a net-zero industrial policy can help lower emissions, protect the environment, and decarbonize industries through a coordinated set of policy measures.¹¹¹ Such policy measures include carbon pricing and regulations (e.g., proposed Clean Electricity Regulations), investment tax credits (e.g., Clean Manufacturing Tax Credit), public funds (e.g., Canada Growth Fund), and targeted

¹¹⁰ Department of Finance Canada, *2023 Fall Economic Statement: Building a strong economy that works for everyone* (2023). <https://www.budget.canada.ca/fes-eea/2023/home-accueil-en.html>

¹¹¹ Bentley Allan and Michael Bernstein, *Creating a Canadian Advantage: Policies to help Canada compete for low-carbon investment* (Transition Accelerator and Clean Prosperity, 2023), 26. <https://netzeroindustrialpolicy.ca/reports/creating-a-canadian-advantage>

investments in priority sectors (e.g. \$3 billion investment in the Smart Renewables and Electrification Pathways Program), as well as government procurement strategies.

Government interventions through a net-zero industrial policy approach can correct market inequities and support domestic industries that both secure Canada's competitiveness in the global economy and contribute to reducing or eliminating GHG emissions.¹¹² Such a policy should be guided by a vision and involve the right supporting governance structures to achieve success and support for workers must be built-in to these approaches.

Canada's current approach

In Budget 2023, the federal government put forward several new initiatives highlighting its intention to grow key net-zero compatible sectors that leverage Canada's competitive advantage, such as clean energy, clean manufacturing, critical minerals and electric vehicles and batteries. What is lacking is a clear vision that articulates economic objectives, how these support climate targets, a vision for how the objectives and tactics will evolve over time, and how this will be funded. Canadian workers — including those who participated in this study — asked for clarity so that they could understand what role they can play and how to capitalize on the opportunities generated. A clearly articulated vision would give employers and workers capacity to plan and take advantage of predictability.

A timely example that underscores the need for anticipatory action is in regard to the Clean Electricity Regulations (CER). Forecasts included in draft regulations project major increases in transmission, distribution and new energy generation. What is missing is a plan for workers. Alongside new regulations like the CER, clear labour market data regarding the number of trained electricians, powerline technicians, construction tradespeople, operators, and other specific jobs required to enable a clean energy grid is needed. Policy makers must also consider the kind of complementary policy measures needed to realize the potential for these to be good, unionized jobs, and ensure training pathways and resources are available so Canada's workforce is able to implement new projects safety and efficiently.

Similarly, a successful industrial policy also requires coordination and oversight to monitor the implementation of disparate policy initiatives and measure success. This

¹¹² Net-Zero Advisory Body, *Compete and Succeed in a Net-Zero Future* (2023).
<https://www.nzab2050.ca/publications/compete-and-succeed-in-a-net-zero-future>

too is a missing piece of Canada’s current approach. While the Regional Energy and Resource Tables are meant to bring the federal government together with individual provinces and territories to collectively identify and advance the most promising economic growth opportunities, these tables were not established with the purpose of coordinating and overseeing a net-zero industrial policy. The relationships and discussions held through these processes, however, could be refocused around this notion.

Industrial policy and sustainable jobs

Net-zero industrial policy is meant to create opportunity through targeted investment and actions that funnel resources towards industries, businesses, and projects that are needed in a clean energy economy — all of which are powered by workers. Labour is at the heart of industrial policy — and thus a critical component of developing such a policy is ensuring a skilled and available workforce is able and willing to participate. Industries must be able to offer desirable job options grounded in decent work conditions to attract and retain workers to jobs that are truly considered sustainable. For those reasons and more, workforce development strategies must coincide with industrial policy development.

“By prioritizing sectors and setting goals for their growth, a net-zero industrial policy can help provide focus and direction for governments’ education and skills programs, as well as providing clear signals to the private sector, educational institutions, and individual workers on where there are likely to be opportunities in the future.”

— Net-Zero Advisory Body¹¹³

One of the recurring concerns workers have expressed about their place in a net-zero future is an absence of clarity on government’s direction and timeline about how to achieve net-zero, what jobs will be created, and where. This topic emerges through discussion that the CLC holds with workers, affiliated unions, and labour councils regularly.

With a net-zero industrial policy approach that clearly articulates industries and occupations that will be in demand in the future, government has an opportunity to show workers that they will not be left behind. Delaying this action risks potential ‘brain

¹¹³ Net-Zero Advisory Body, *Compete and Succeed in a Net-Zero Future*, 43.

drain’ or loss of Canadian workers and talent to the U.S. where billions have been spent to attract investment in clean energy.

“I think the government needs to step up and say, this is what we want. We’ve proven it’s good for you. And they haven’t done that.”

— Heavy equipment mechanic, Alberta

Communities also have much gain from industrial policy. The right industrial policy could help resolve additional pressures that communities in transition experience. New investments could be targeted to regions where industries can decarbonize in order to strengthen the long-term viability of economic activity and employment in the region, as well as regions where industries are in decline to help cushion the impacts of transition and absorb displaced workers. This in turn could foster greater confidence in places where futures remain unclear, in particular those communities where a single industry — frequently energy, resources or manufacturing — is the main driver for a local economy.

“That’s what [the union is] trying to tell the government: we’re not just trying to dump this all on you. But you’re also not giving us the direction we need to, as a union, do what we need to do. Even the workers, they don’t know what to do. They just know this 2030 date and that I might be unemployed by 2030...I know governments don’t move fast. That’s why to me, stuff has to start happening now.”

— Union representative for power workers in Saskatchewan

Industrial policy as a means to preserve union jobs and keep communities working

While workers and communities have much to gain from industrial policy in respect to new jobs, industrial decarbonization also helps preserve Canadian jobs in a world where the lowest carbon industries will experience more success. Canada has many industrial sectors which are already comparatively low-carbon, and other sectors which can further decarbonize to increase competitiveness in a net-zero world.

An industrial strategy, developed in consultation with employers and workers, should establish pathways to decarbonize key industrial sectors. This would involve identifying the sectors where decarbonization technologies are most mature, and establishing financial and technical supports to accelerate the sectors’ transformation. It will be

important to ensure that collective agreements and labour standards are maintained, and that transformation is not used as an excuse for employers to “flip” unionized workers into non-unionized jobs (discussed in more detail in Section 3.3).

Not only does industrial decarbonization help Canada meet climate targets, secure additional co-benefits of reduced emissions, and increase the competitiveness of domestic industries, adapting industries to a net-zero future keeps workers in those industries. Workers would be able to retain their collective agreement, seniority, benefits, and pensions while their work becomes more sustainable. Likewise, places where the industry is a main employer see the workers, families, and economic benefits remain in the community. The same is true for jobs in spinoff industries, local businesses, and services that rely on the industry.

Development of net-zero industrial policies must occur through social dialogue between employers, workers and governments (national, provincial, municipal and Indigenous) and in extensive consultation with affected communities, in order to ensure policies reflect place-based opportunities and challenges, worker priorities and needs, existing local economies and supply chains and other key factors. Industrial policies must also address both national and regional priorities.

There are opportunities to advance industrial policy through establishing a high-level vision, a coordination and oversight mechanism, and the right combination of policies. Concrete action taken by government through targeted industrial policy could show workers and communities clear pathways to net-zero that involve them — and help secure buy-in to net-zero transition.

Recommendations

4.2.1 Advance effective regulations in a timely manner to foster greater market certainty

Regulations are an essential part of a net-zero industrial policy toolkit to disincentivize carbon pollution. Experts argue that the current regulatory environment is insufficient to achieve net-zero emissions. While global oil markets are predicted to shrink as the energy transition accelerates, without a cap on oil and gas emissions and a Clean Electricity Regulation, existing regulatory signals are not strong enough to accelerate investment toward clean energy or in decarbonizing the existing oil and gas supply.

Developing effective regulations in a timely manner will create greater market certainty and accelerate economic growth and job creation in new and existing industries, which

will help absorb displaced workers, help communities rebound from decline, and create new career pathways for the future workforce.^{114,115} Regulations that are too flexible may not incentivize companies to manage the impacts on their workers from the transition that will inevitably result from the global industrial decline of unabated fossil fuel production and combustion. Canada must keep pace with other climate leaders and adopt an ambitious regulatory scheme to capitalize on the clean growth economy sooner.

Actions to consider

4.2.2 Create provincial and territorial net-zero industrial policy tables with sectoral working groups

New net-zero industrial policy tables should be struck in each province and territory, evolving from and building off the relationships and priority areas determined through the early work of the Regional Energy and Resource Tables. These industrial policy tables would be struck by the proposed Sustainable Jobs Training Centre. These industrial policy tables would meet at regular intervals to guide and oversee the development of provincial and territorial industrial policies through a social dialogue process — involving a similar tripartite approach to the Sustainable Jobs Partnership Council with labour, government, and industry, as well as Indigenous people and civil society groups.

These tables should help advance the development and growth of key clean economy industrial sectors by establishing sectoral working groups. Members of these tables would strive to ensure that industrial policies supported all regions of the province, particularly those experiencing industrial decline, as well as work with the Sustainable Jobs Training Centre to ensure there are workforce development plans in place to advance these net-zero industrial strategies.

¹¹⁴ Janetta McKenzie, Scott MacDougall, Jan Gorski and Eyab Al-Aini, *Options to cap and cut oil and gas sector greenhouse gas emissions: Pembina Institute comments and recommendations* (Pembina Institute, 2022). <https://www.pembina.org/pub/options-cap-and-cut-oil-and-gas-sector-greenhouse-gas-emissions>

¹¹⁵ Binu Jeyakumar and Jason Wang, *Pembina Institute Response to the Clean Electricity Standard Discussion Paper* (Pembina Institute, 2022). <https://www.pembina.org/pub/response-federal-governments-discussion-paper-forthcoming-clean-electricity-standard>

Example: Economic Strategy Tables, Canada

Between 2017-2018, the Economic Strategy Tables brought together industry and government to turn Canada's economic strengths into global advantages. The tables focused on six key sectors: advanced manufacturing, agri-food, clean technology, digital industries, health/bio-sciences and resources of the future. The work of these tables resulted in a plan for innovation-led long-term growth and recommendations for the Government of Canada.¹¹⁶

Example: Sustainable Workforce Coalition, Metro Vancouver

The Vancouver Economic Commission launched a regional dialogue in the Metro Vancouver area on sustainable jobs through the Sustainable Workforce Coalition. The Coalition involves local labour groups, city departments, subject matter experts, think tanks, and financial institutions, and is designed to undertake community consultations, oversee and coordinate climate-related capacity building in the workforce.¹¹⁷

4.2.3 Expand labour and community conditions to all sources of net-zero public financing

Governments have an obligation to use public dollars in a way that achieves positive outcomes and public good. Another tool in the industrial policy toolbox is the strategic allocation of public funds, including tax incentives and public banks. Attaching strings and conditions to these funds can motivate funding recipients to meet additional requirements that achieve sustainable jobs goals.

In Budget 2023 Canada announced new investment tax credits (ITC's) to spur investment in key sectors that rewarded project proponents additional tax incentive should they meet requirements to pay workers a prevailing wage and use of apprentices to implement projects and run operations. Employers can demonstrate they are paying prevailing wages through having a collective agreement or paying workers wages that meet the same standards as local multi-employer collective agreements.

¹¹⁶ Innovation, Science and Economic Development Canada, "Economic Strategy Tables." <https://ised-isde.canada.ca/site/economic-strategy-tables/en>

¹¹⁷ George Bension, *Zero Emissions Economic Transition Action Plan (ZEETAP)* (Vancouver Economic Commission, 2022), 15. <https://vancouvereconomic.com/programs/vancouvers-zero-emissions-economic-transition-action-plan/>

To be eligible for the highest tax credit rates, businesses must pay workers the prevailing wage and at least 10% of the tradesperson hours worked must be performed by registered apprentices in the Red Seal trades. Labour conditions currently apply to the Carbon Capture Utilization and Sequestration, Clean Manufacturing, and Clean Hydrogen Tax Credits, but do not apply to the Clean Technology Manufacturing Tax Credit. These ITCs should be implemented with the full strength of the labour conditions maintained. The Secretariat and the Partnership Council should explore how collective agreements could be used to establish the concept of a prevailing wage. Furthermore, they should explore creating targeted Production Tax Credits with labour conditions.

Additional research should be undertaken to evaluate the viability of expanding labour conditions to other sources of public funding for net-zero initiatives, including the Canada Growth Fund, Net-Zero Accelerator and Canada Infrastructure Bank. Furthermore, the conditions themselves should be expanded to maximize benefits for workers and communities. Government should offer additive tax rebates that layer on additional conditions to incentivize investment in affected communities and provision of on-the-job training for workers.

Industrial policy tools can also promote investments in certain sectors. For example, the Government of Canada spent \$13.2 billion to secure the creation of a Volkswagen battery manufacturing gigafactory in Ontario, bringing 3,000 jobs to the area and putting in place an anchor for an EV battery supply chain. Significant opportunities exist where Canada is already beginning to act — for example, in respect to grid decarbonization, infrastructure investments to achieve climate change mitigation, and energy efficiency in buildings — to foster domestic, low-carbon supply chains. Prioritizing such supply chains could support workers in sectors producing low-carbon timber, steel, aluminum, cement, and manufactured components, and could catalyze growth in these sectors. Investments in priority sectors should be granted with conditions that compel employers to uphold decent work standards and promote investment in transitioning regions where relevant.

Furthermore, existing Canadian industry has access to mature technologies to decarbonize industries including steel, cement, chemicals, and aluminum; however, they face challenges related to cost and asset turnover.¹¹⁸ Government can support decarbonization of these existing industries and attach conditions to ensure that these industries engage in meaningful consultation with their workforce regarding future

¹¹⁸ *Decarbonizing Industry in Canada and the G7*, 5.

employment impacts, train workers for industrial change, and maintain existing collective agreements.

Example: Energy Communities Tax Credit, USA

The Energy Communities Tax Credit, announced as part of the U.S.'s Inflation Reduction Act, provides an additional 10% credit to production or investment tax credits to 'energy communities', defined generally as communities that have a certain level of direct employment or local tax revenues from coal, oil, or natural gas, or communities that are brownfield sites.¹¹⁹

Example: Fair Work First, Scotland

Scotland requires that publicly funded projects meet Fair Work First practices to drive high quality and fair work and workforce diversity across Scotland. These practices include payment of a living wage, trade union recognition, investment in workforce development, action to tackle the gender pay gap, and other flexible and family-friendly working practices for all workers.¹²⁰

4.2.4 Continue to explore a Border Carbon Adjustment to uplift clean industry

In 2020, the Government of Canada committed to exploring the potential of Border Carbon Adjustments (BCAs). BCAs place charges on the carbon embedded in imports that exceed carbon embodied within similar goods produced domestically. BCAs can ensure that domestic goods are not punished for having low embodied carbon as compared with foreign goods available in competing export markets by rebating carbon costs where applicable to reduce 'carbon leakage' (i.e., unaccounted-for carbon crossing the border). This policy is meant to help Canadian products remain competitive with internationally manufactured goods that are more emissions-intensive and would potentially cost less than the domestic version.

Canada has stated its intention to work with like-minded countries to determine if and how BCAs could help Canada meet climate targets, create or lessen economic pressures for domestically produced goods and maintain international trade relationships. This

¹¹⁹ Interagency Working Group on Coal & Power Plant Communities & Economic Revitalization, "Energy Community Tax Credit Bonus." <https://energycommunities.gov/energy-community-tax-credit-bonus/>

¹²⁰ <https://www.gov.scot/publications/fair-work-first-guidance-2/>

would involve working with major trading partners like the U.S. and EU, which has proposed that a border carbon adjustment come into effect in 2023.¹²¹ As part of this process, Canada should review the current OBPS to ensure there is no inefficient overlap with a new BCA.

Example: Proposed Carbon Border Adjustment Mechanism, European Union

The EU has proposed to implement a Carbon Border Adjustment Mechanism in 2023. EU importers will buy carbon certificates corresponding to the carbon price that would have been paid had the goods been produced under the EU's carbon pricing rules. Conversely, once a non-EU producer can show that they have already paid a price for the carbon emitted in the production of the imported goods in a third country, the corresponding cost can be fully deducted for the EU importer.

4.2.5 Adapt government procurement policy to favour 'clean' products and prioritize suppliers from affected communities

Through the Greening Government Strategy, the federal government has committed to require all department decisions and practices to achieve net-zero emissions and provide climate resilience.¹²² 'Buy Clean', for example, is a green procurement approach that requires life cycle assessments to favour adoption of clean technologies and low-carbon products. This should include carbon emissions when extracting raw materials, through the logistics and transportation of those materials, as well as the manufacturing and shipping of end products. Creating policy tools like Buy Clean recognizes investments made by domestic manufacturers and helps them compete against products with higher carbon content.

The policy has the two-fold effect of lowering carbon emissions and ensuring already comparatively low-carbon and traditionally union-dense Canadian products like cement, aluminum and steel can access this market, while also catalyzing the production of low-carbon good in Canada. While Canada has shied away from domestic

¹²¹ European Commission, "Carbon Border Adjustment Mechanism." https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

¹²² Treasury Board of Canada Secretariat, "Greening Government Strategy: A Government of Canada Directive: Procurement of goods and services." <https://www.canada.ca/en/treasury-board-secretariat/services/innovation/greening-government/strategy.html#toc3-5>

content requirements, this would have a similar effect on Canadian industry without creating challenges at the World Trade Organization.

Combined with industrial decarbonization policies, greening government strategies help stimulate domestic production of low-carbon products while ensuring healthy market demand. This policy helps Canadian manufacturers become the preferred suppliers for governments, which could foster broader market demand and create and sustain opportunities for Canadian workers. For example, the Patullo Bridge Replacement project in B.C. purchased steel based on cost alone, meaning the bridge was built with steel from overseas where production is more carbon-intensive. While the bridge was built under a provincial Community Benefits Agreement using unionized labour (in line with recommendation 4.2.6), the project missed an opportunity to lower its carbon footprints, as well as support good jobs in the supply chain for this project.¹²³ A Buy Clean procurement policy could have ensured that public dollars were used to purchase low-carbon, Canadian-made steel that supports jobs in the Canadian steel industry and lowered the total carbon footprint of the project. Buy Clean policies have the support of labour and industry associations.

Canada should follow through with commitments to stimulate market demand for low-carbon products by requiring procurement decisions to account for embodied carbon along the entire supply chain. Wherever possible, the Government should also prioritize procurement contracts for suppliers in communities experiencing transition.¹²⁴ When paired with policies to support industrial decarbonization, the impacts can multiply.

Adoption of Buy Clean policies should not be limited to the federal government. Provincial, territorial and municipal governments should adopt Buy Clean policies which support lower carbon footprints and support low-carbon domestic jobs. While beyond the scope of recommendations in this report, private sector implementation of Buy Clean policies could also have significant impacts on Canadian manufacturing.

¹²³ Grant Cameron, “USW urging Trudeau to ensure Canadian-made steel used on major projects,” *Daily Commercial News*, February 1, 2021.

<https://canada.constructconnect.com/dcn/news/economic/2021/02/usw-urging-trudeau-to-ensure-canadian-made-steel-used-on-major-projects>

¹²⁴ Grace Brown and Binu Jeyakumar, *Supporting Workers and Communities in a Coal Phase-out: Lessons learned from just transition efforts in Canada* (Pembina Institute, 2022).

<https://www.pembina.org/pub/supporting-workers-and-communities-coal-phase-out>

4.2.6 Require Community Benefit Agreements on public infrastructure and development projects

Governments often require that Community Benefit Agreements, a contractual requirement to achieve social objectives, are established between communities and project proponents on publicly funded infrastructure and development projects. Presently, there is no uniform requirement or incentive for privately run projects to establish such an agreement, other than securing a social licence to operate and community buy-in, as well as alignment with ESG standards.

Community Benefit Agreements could help offset any potential negative consequences of development, foster reinvestment in the social and economic vitality of surrounding communities, help train a local workforce, and result in creation of local jobs and equitable hiring practices.¹²⁵

The Government of Canada should build on the lessons of the British Columbia model of requiring Community Benefit Agreements. Government should require CBAs to address labour, community, and priorities on select public infrastructure projects while pairing it with comprehensive Buy Clean policies. The B.C. model ensures public funds create apprenticeship opportunities, protect opportunities for equity-deserving groups such as women and Indigenous people, and stipulate that workers must be unionized. Governments should ensure these requirements are outcome focused and not hindered by undue process.

Capacity funding should be provided to communities who may have limited resources, such as municipal and Indigenous governments in rural and remote locations, to allow them to participate fully in the agreement development process. For Indigenous communities, equitable participation can help ensure projects align with community and cultural values, help communities achieve their social and economic goals, and provide communities with a better sense of autonomy and self-determination.

Example: Community Benefits Agreement Framework, British Columbia

BC Infrastructure Benefits (BCIB), established in 2018, is the Crown corporation accountable for implementing the Community Benefits Agreement (CBA) on select public

¹²⁵ Buy Social Canada, “Community Benefit Agreements.”
<https://www.buysocialcanada.com/learn/community-benefit-agreement/>

infrastructure projects. BCIB’s purpose is to partner in the successful delivery of projects, mobilize and grow a safe, diverse and skilled workforce and honour community strength by building on local assets, knowledge and potential.

Example: Centre of Expertise on Impact and Benefit Agreements, Quebec and Labrador

The Centre of Expertise on Impact and Benefit Agreements supports First Nations in Quebec and Labrador to develop impact benefit agreements in mining, forestry, and energy sectors.¹²⁶

4.3 Leverage private capital to support sustainable jobs

Key findings

- ➔ Achieving a net-zero future where sustainable jobs are plentiful requires both private and public actors.
- ➔ Progressive tax measures can ensure private capital is leveraged in the most strategic way to support workers and communities in transition; however, additional research into such measures is needed.

What role does industry play in financing the transition and supporting workers?

In a rapidly changing world, industry’s capacity and willingness to innovate, modernize, and remain compatible with a net-zero economy will have direct consequences for workers. High-emitting industries have the option to decarbonize operations, diversify portfolios, or cling to business-as-usual scenario — which could create the risk that domestic and international competitors achieve greater levels of success and render them uneconomic.

¹²⁶ Indigenous Services Canada, “Centre of Expertise on Impact and Benefit Agreements: an important ally.” <https://www.sac-isc.gc.ca/eng/1645561183367/1645561204248>

Global commitments to phase-out coal, paired with evolving clean energy technologies, resulted in the closure of coal-fired power plants in Alberta nearly seven years earlier than anticipated and resulted in layoffs of hundreds of workers. The power plants that will continue operating in Alberta are those that converted to natural gas; however, these plants will likely have to adapt again as unabated fossil fuel combustion is likely to be prohibited closer to 2050. Similarly, some employers in Canada have offshored production of clean technologies to jurisdictions with weaker unions and fewer labour standards, rather than upholding decent work standards and maintaining jobs on Canadian soil.

Industry can choose to take on a leadership role and uphold pillars of decent work, bargain in good faith, provide training for workers, and reinvest in their operations to improve environmental standards and good working conditions to help advance sustainable jobs priorities and a just transition.

Fair allocation of private vs. public capital

In the fossil fuel sector, there is a mismatch between publicly stated climate commitments and the direction of investment flows. Oilsands companies had record cashflow and profits in 2022 and 2023. In 2022, profits increased by 1000% since 2019 and were also the source of major spikes in commodity prices for consumer products like gasoline and home heating fuels, contributing significantly to inflation.¹²⁷

While companies are increasingly voicing their commitment and alignment with net-zero objectives through groups like Oil Sands Pathways Alliance, half of all available cashflow was returned to shareholders rather than reinvested in decarbonization initiatives or programs for workers.¹²⁸ This calls the sincerity of oil and gas companies into question as many insist they require government-funded tax incentives to finance transition technologies such as CCUS in order to keep pace with the United States.¹²⁹

Recognizing the public ownership of natural resources, the governments of Alberta and British Columbia require oil and gas companies to pay royalties which return revenue to

¹²⁷ Jim Stanford, “Fifteen Super-Profitable Industries are Driving Canadian Inflation,” *Centre for Future Work*, December 2, 2022. <https://centreforfuturework.ca/2022/12/02/fifteen-super-profitable-industries-are-driving-canadian-inflation/>

¹²⁸ Eyab Al-Aini, Jan Gorski, *Waiting to Launch 2022 year-end update* (Pembina Institute, 2023). <https://www.pembina.org/pub/waiting-launch-2022-year-end-update>

¹²⁹ Janetta McKenzie, Scott MacDougall, *Comparing Canadian and American Financial Incentives for CCUS in the Oil Sector* (Pembina Institute, 2023). <https://www.pembina.org/pub/comparing-canadian-and-american-financial-incentives-ccus-oil-sector>

provincial governments to reinvest in programs and services. Ultimately, private capital is needed to reduce burden on taxpayers to finance transition policies, particularly in light of the excess profits and emissions growth trajectories in recent years.

Example: Just Transition Finance Lab, United Kingdom

The Grantham Research Institute plans to launch a Just Transition Finance Lab in 2024 to serve as a centre for experimentation and excellence in the financial solutions needed for the transition to net-zero. Building off existing work, the Lab will investigate:

- The design and deployment of financial tools and instruments for the just transition.
- The development and application of metrics to measure just transition performance.
- The identification of appropriate policy reforms to mobilize finance for the just transition.¹³⁰

Actions to consider

4.3.1 Establish an excess profit mechanism for emissions-intensive industries

An excess profit mechanism could be applied to emissions-intensive industries, whereby a levy would be collected for the duration that emission levels do not meaningfully decrease from a 2023 baseline. The levy would go into an investment fund, similar in nature to a sovereign wealth fund,¹³¹ that would generate additional resources for worker transition, retraining, and economic diversification programs.

Government could design a mechanism to mitigate the potential uncertainty that comes from such a time-limited tax, which could hinder industry’s business forecasting and planning. Furthermore, considering that profits from emissions intensive, trade-exposed sectors can be volatile due to reliance on global markets, government must take caution when anticipating potential additional revenues from an excess profit tax. For example, should the price of oil decline, profits from the oil and gas industry are likely to decline and thus anticipated government revenue may not be realized.

¹³⁰ London School of Economics and Political Science and the Grantham Research Institute on Climate Change and the Environment, “Financing and Just Transition.”

<https://www.lse.ac.uk/granthaminstitute/financing-a-just-transition/#overview>

¹³¹ Investopedia, “Sovereign Wealth Fund (SWF): Definition, Examples, and Types.”

https://www.investopedia.com/terms/s/sovereign_wealth_fund.asp

The federal government has applied a one-time tax to large banks and insurance companies through the Canada Recovery Dividend to ensure companies do not raise commodity prices on essential items.¹³² While the Parliamentary Budget Office confirmed that a one-time 15% windfall tax on oil and gas and big-box store profits could yield \$4.2 billion over the next five years,¹³³ additional research into the potential merits and limits of such a mechanism is needed. For example, analysis is needed to ensure such a mechanism would not deter investment into emissions reductions, and consideration of existing resource royalty rates in places like Alberta and British Columbia is important to bring into the equation. Similarly, analysis is needed to determine whether corporate tax adjustments or adjusting resource royalty frameworks are a more appropriate means of achieving intended goals.

Example: Energy Profits Levy, United Kingdom

The Government of the United Kingdom imposed an Energy Profits Levy in 2022 as an additional temporary 25% tax on profits from North Sea oil and gas production, bringing the total profit taxation rate to 65%. Profits were used to fund measures to support households in response to inflation. It should be noted that the U.K. oil and gas sector is not subject to resource royalties, unlike the Canadian sector.

4.3.2 Increase the shareholder buy-back tax

Advancing and financing a net-zero transition requires commitment from companies to reinvest in their own operations and flow private capital toward initiatives, new technologies, and training. To achieve a fairer tax system, the 2022 Fall Economic Statement applied a corporate level 2% tax when a company buy its own stock back from existing shareholders, to promote reinvestment in workers and businesses. This tax could be increased for oil and gas companies and possibly other emissions-intensive industries to ensure that companies are taking steps to support workers through transition and meeting decarbonization commitments.

¹³² Rolande Kpekou Tossou, Caroline Nicol and Tim Scholz, *Canada Recovery Dividend: Legislative Costing Note* (Parliamentary Budget Office, September 22, 2022). <https://www.pbo-dpb.ca/en/publications/LEG-2223-014-S--canada-recovery-dividend--dividende-relevance-canada>

¹³³ David Thurton, “Some MPs are calling on Ottawa to take a bigger bite out of fossil fuel companies’ profits,” *CBC News*, October 29, 2023. <https://www.cbc.ca/news/politics/oil-gas-climate-change-windfall-tax-1.7011125>

5. Conclusion

The global energy transition is underway, and whether it leads to positive or negative outcomes for workers is a choice. The reality is that changes in energy systems, the labour market, and the economy are here to stay, and the federal government has a clear responsibility to support those who are impacted most. The Government of Canada now has the opportunity to rise to the sustainable jobs challenge, and chart the path forward for workers, communities, the economy, and the environment.

“Canada can choose to be a leader in the context of moving forward, or we can effectively stick our heads in the sand and decide that we will let the world pass us by.”

— Minister Wilkinson, press conference introducing the proposed Sustainable Jobs Act¹³⁴

This report seeks to provide insight as to how to move forward. This Sustainable Jobs Blueprint argues for a strong government-led response to planning for the clean energy transition. This strategic and early investment in workers and communities can also simultaneously address the affordability crisis, labour shortages and declining job quality.

The policies proposed in this report were generated by workers and for workers – and they are only a start. The Sustainable Jobs Partnership Council and Secretariat as well as the proposed Sustainable Jobs Training Centre can take a leadership role by diving deeper into the recommendations of this report.

In addition, industry, government bodies at all levels, community leaders and unions will all have a vital role to play. Workers themselves can be key partners to take these ideas and develop them further. Buy-in from workers is needed to realize this vision. Workers need to understand, participate in, and communicate about how to move forward. With workers onside, the transition can move at the speed that the climate emergency demands.

¹³⁴ Bryan Passifiume, “Federal government introduces 'just transition' sustainable jobs act,” *National Post*, June 15, 2023. <https://nationalpost.com/news/politics/government-introduces-just-transition-sustainable-jobs-act>

With the passage of Bill C-50, the Sustainable Jobs Act — and actions taken across the seven key areas outlined in this report — workers, the economy, and the environment will be in a position to prosper and thrive. Canada can and should capitalize on the benefits of the clean energy transition and move towards a fairer society where workers are in the driver's seat.

Appendix A. Current federal skill-building programs

Table 4. List of current federal skill building and training programs, 2023

Program	Details	Funding
Sustainable Jobs Training Centre	The Sustainable Jobs Training Centre is designed to help 15,000 workers gain the skills they need for good jobs and a strengthened national workforce. This is done by bringing together, unions, employers, and training institutions.	\$125 M announced in the 2022 Fall Economic Statement; expected to benefit 15,000 workers
Union Training and Innovation Program (UTIP)	This program supports apprenticeship training and innovation in apprenticeship programs, and partners with Red Seal trades across Canada. UTIP is designed to improve the quality of training offered in the skilled trades and the participation of specific groups by targeting key groups such a women, Indigenous people, newcomers, persons with disabilities and visible minorities.	\$83 M expected to benefit up to 30,000 workers
Sustainable Jobs Stream	This stream, under the UTIP, was announced to support unions in developing skills training for tradespeople to transition to ‘green’ jobs. This investment hopes to help Canadian workers find prosperity in the new energy economy of the future.	\$117 M announced in the 2022 Fall Economic Statement, expected to benefit 20,000 workers
Community Workforce Development Program	This pilot program is designed to test community-based approaches to growing Canada’s workforce through planning and skills training. This program focuses on collaboration between communities, employers and training institutions. Additionally, there is a focus on diversity and inclusion by supporting the participation of under-represented groups, including women, Indigenous people, Black and racialized people,	\$55 M announced in budget 2021; estimated to benefit 2,500 workers, 250 employers, and 25 communities

	newcomers and members of the LGBTQ2S+ community.	
Sectoral Workforce Solutions Program	The Sectoral Workforce Solutions Program is a contribution program that helps fund sectoral projects supporting workers and employers in addressing current and upcoming workforce challenges.	\$960 M announced in Budget 2021 estimated to benefit 90,000 workers
Skills for Success Program	This initiative includes resources, supports, funding opportunities and research for workers, employers, organizations and training providers.	\$298 M estimated to benefit 90,000 workers
Canada Training Credit	Covers 50% of tuition costs for recipients up to \$5000.	\$815 M announced in Budget 2019 estimated to benefit more than 163,000 workers
Upskilling for Industry Initiative	Fosters partnerships between employers and training institutes to provide short cycle up-skilling programs that can help meet the needs of employers and provide good employment opportunities.	\$250 M expected to benefit more than 15,000 workers
Apprenticeship Service	Supports employers to hire first year apprentices.	\$470 M announced in Budget 2021; expected to benefit 55,000 workers
Apprenticeship Grants	Includes the Apprenticeship Incentive Grant, the Apprenticeship Incentive Grant for Women (pilot project now concluded) and the Apprenticeship Completion Grant.	\$1.28 B invested to date; provided more than 978,200 grants.
Canadian Apprenticeship Strategy	A call for proposals was launched as part of the Canadian Apprenticeship Strategy that asks unions representing Red Seal workers to help improve quality of training for apprentices through purchase of equipment and materials and support the development of environmental skills in the Red Seal trades.	\$25 M announced in August 2023 to support approximately 25,000 apprentices.

Appendix B. Recommendations summary

Table 5. Summary of worker-focused actions

Topic	Problem	Proposed Action	Implementation Details
Invest in skills and training capacity to give workers the tools to succeed	Existing federal skills funding does not match the number of workers that will likely seek retraining support, nor are federal skills programs targeted enough to achieve sustainable jobs objectives.	<i>Recommendation:</i> Review, streamline and scale up existing skills training programs	A review of current federal skills programs should be undertaken by the Sustainable Jobs Secretariat, working with the Sustainable Jobs Training Centre, in consultation with unions and labour organizations. This review would result in adjustments to streamline and scale up programs to respond to anticipated demand for retraining, improve program efficacy, and attract equity-deserving groups to sustainable jobs.
	Training providers are not adequately resourced to accommodate the anticipated increase in demand for training.	<i>Recommendation:</i> Provide capacity funding for union training centres and accredited not-for-profit training programs	A fund should be created to allocate additional resources to union training centres and accredited non-profit training programs to deliver programs. Funding should be allocated to institutions that are able to demonstrate a history of success in helping workers connect to job opportunities, are able to deliver programs that offer flexible training models (e.g., virtual, asynchronous learning); and include equity, diversity, and inclusion training as a mandatory component of course curriculum.
	Provinces and territories may require additional resources to fund services needed to support workers in attaining the right education and skills for sustainable jobs.	<i>Recommendation:</i> Establish a funding stream for provinces and territories to supplement skills and education programming	The federal government could establish a fund for provinces and territories to support regionally-specific workforce development initiatives that connect workers to sustainable jobs. Consultation with provinces, territories, and unions and labour organizations should be undertaken to develop such a fund. Conditions should be applied to these transfers to ensure alignment with sustainable jobs goals, and to strengthen equity components.
	Employers are not incentivized to offer on-the-job training; rather, employers often seek out fully qualified candidates to fill job vacancies.	<i>Recommendation:</i> Incentivize on-the-job and employer-delivered training through a cost-sharing program	A cost-sharing training program for workers could be established to incentivize employers to train and re-train workers on-the-job. Such a program has the potential to motivate employers to invest in their employees, thereby promoting worker retention through transition.

	There is little emphasis placed on equipping the next generation of workers with the right skills to participate in the net-zero economy.	<i>Recommendation:</i> Guide youth towards sustainable jobs opportunities through a tuition credit program	A tuition credit program should be developed to draw youth toward in-demand sustainable job occupations anticipated in the next decade and beyond. The kind of programs eligible for the tuition credit would be determined through labour market analysis, consultation with youth, education and training institutions, and employers.
	Worker shortages exist in nearly every sector of the Canadian economy, and Canada has been slow to recognize the credentials of newcomers in many regulated occupations.	<i>Recommendation:</i> Support newcomers to participate in the workforce by improving credential recognition	Canada's Foreign Credential Recognition Program should be strengthened to ensure newcomers have fair and equal access to sustainable jobs by helping them gain soft skills, providing language training, focusing on upskilling, and working with regulatory bodies and employers to further accelerate credential assessment and recognition.
	Net-zero economic, regional, and industrial development plans are not integrated with workforce development strategies that make them operational.	<i>Recommendation:</i> Implement the Sustainable Jobs Training Centre to serve as a central research, analysis and resource hub	The Sustainable Jobs Training Centre could be implemented to provide a central research, analysis and resource function to inform workforce development planning. The focus of the Training Centre would be to ensure economic and climate strategies, including regional development and industrial policies, have the necessary workforce development plans in place. The Training Centre would work closely with the Sustainable Jobs Secretariat and establish regional net-zero industrial policy tables.
Provide income security and programs that help workers find new jobs or retire early	The current EI system is not flexible enough to respond to the needs of workers impacted by whole-economy shifts.	<i>Recommendation:</i> Improve the responsiveness of Employment Insurance to enable workers to retrain while receiving income support	Canada's Employment Insurance programs could be reformed and modernized to respond to anticipated economic and workforce changes that will accompany the clean energy transition. Reforms should ensure workers are able retrain while receiving EI to bridge the income gap between job opportunities. Expanding program eligibility and could be funded through increases to EI premiums.
	Work-Sharing agreements only apply to industries experiencing short-term slowdowns.	<i>Recommendation:</i> Extend eligibility of Work-sharing agreements for industries experiencing long-term decline	Expanding the use of Work Sharing agreement special measures to industries experiencing long-term decline (not just a work slowdown) could enable workers to work reduced hours and retrain in advance of industry closures as an alternative to layoffs.
	Workers need a place to go for information, resources, and support before, during, and after they become displaced.	<i>Recommendation:</i> Ensure the Sustainable Jobs Secretariat is equipped to direct workers to programs and services	The Sustainable Jobs Secretariat should provide direction for workers seeking information, resources, and supports through the clean energy transition in the short-term. The Secretariat should develop a plan in tandem to develop community-based transition centres with regionally-specific supports for workers in affected regions.

	Workers may not be able to access their pensions when employers claim bankruptcy.	<i>Recommendation:</i> Protect worker pensions when industries become insolvent	Bill C-228, the proposed Pension Protection Act, will not come into effect until April 2027. Government should take steps to ensure workers' pensions are protected and between now and 2027. Government should also commit to ongoing monitoring and review of Bill C-228 when it comes into force to ensure it has desired effects.
	Some workers nearing retirement age may not have interest or ability to retrain into a new job.	<i>Recommendation:</i> Create a pension bridge for workers nearing retirement age	A retirement bridge could be developed for workers nearing retirement age in high emitting industries where re-employment options do not readily exist, and retraining for a new career does not make financial sense.
	Workers may incur additional costs if required to move to find a new job.	<i>Recommendation:</i> Provide a worker relocation assistance fund	A relocation assistance fund could be developed for workers required to move to new jobs as a result of industry decline where comparable local jobs do not exist.
Enable a framework to uphold good job standards in the clean economy	Clean economy jobs are not automatically good jobs - they may be precarious, unsafe, or otherwise not meet the needs of workers.	<i>Action to consider:</i> Undertake a review of programs and policies in support of unions and worker organizing	<p>Undertaking key labour code reforms to reduce bureaucratic barriers to unionization could increase union density in the clean economy and Canadian workforce at-large. Such reforms could involve: increasing enforcement of the labour codes to deter unfair labour practices; using a single-step card check to certify unions; placing a formal five-day limit on boards scheduling votes to certify unions; prohibiting the use of replacement workers during strike action; require first contract arbitration where it does not already exist; and, requiring employers to supply lists of workers to unions.</p> <p>Some actions or labour reforms could be piloted in emerging net-zero sectors, such as sectoral bargaining, strengthening successor rights, and banning contract flipping.</p>
Engage with workers about their future	Workers may lack the information and engagement they need to buy into transition plans and understand supports available to them.	<i>Recommendation:</i> Develop awareness and dialogue campaigns to inform and engage with workers about the energy transition	Strengthened government engagement with unions and sharing information, forecasts, and research would allow unions to understand the implications of policy directions. Unions could then engage their members directly, and then communicate with other social partners on behalf of workers. The Sustainable Jobs Partnership Council should also consult with labour beyond the members of the council, to seek input and share information.

Table 6. Summary of economy-focused actions

Topic	Problem	Proposed Actions	Implementation Details
Invest in regions to build resilience in a net-zero economy	Provinces and territories across Canada require additional resources to implement industrial policy and regional action plans for a clean economy.	<i>Recommendation:</i> Scale up the Futures Fund to support regional net-zero action plans and advance regional industrial policy priorities	The proposed \$2 billion Futures Fund for Alberta, Saskatchewan and Newfoundland and Labrador should be scaled up and expanded nationally to support all provinces to implement regional net-zero industrial policy plans, develop critical climate infrastructure and establish regional development plans within provincial regions.
	Rural, remote, and resource-based communities may be more at risk of experiencing the negative impacts of the shift to a net-zero economy.	<i>Recommendation:</i> Establish an economic diversification transfer for affected regions	A new transfer would be allocated to local governments based on an assessment of anticipated transition impacts. The objective of the transfer would be to promote long-term economic diversification and capacity support for communities, which could include both net-zero compatible capital projects, new business clusters and infrastructure, as well as funding that supports broader community wellbeing objectives.
	Indigenous communities may face additional barriers to participating in the clean energy economy.	<i>Recommendation:</i> Create an Indigenous loan guarantee program as part of a National Benefits-Sharing Framework	An Indigenous loan guarantee program could reduce investment risk for Indigenous communities, allowing them to advance economic participation in the clean economy and achieve steps toward self-determination by taking on greater shares of project ownership.
Develop net-zero industrial policy that creates conditions for thriving industries	Regulatory uncertainty makes it more challenging for workers and industry to understand market direction.	<i>Recommendation:</i> Advance effective regulations in a timely manner to foster greater market certainty	Ensure key regulations, specifically the oil and gas cap and the Clean Electricity Regulations, are advanced in a timely manner and with enough stringency. This would create the market certainty to compel industry to adapt to new market drivers and accelerate growth of the clean economy that will create new jobs for workers.
	Presently, no forum exists to bring labour together with government and industry to inform, collaborate and oversee the development of net-zero regional industrial visions.	<i>Action to consider:</i> Create provincial and territorial industrial policy tables with sectoral working groups	Net-zero industrial policy tables anchored in a social dialogue process could guide the development of provincial and territorial industrial plans. These tables could advance the growth of net-zero compatible industries by establishing sectoral working groups. The tables would be administered via the Sustainable Jobs Training Centre, which would ensure workforce development plans are integrated into economic and climate plans.

	Some public funds do not require project proponents to meet key labour standards, foregoing an opportunity to increase the social value of projects.	<i>Action to consider:</i> Expand labour and community conditions to all sources of net-zero public financing	Attaching labour-conditions to sources of public funding, including all tax credits, investments in key sectors, and financial instruments could promote paying workers a prevailing wage, using apprentices on projects, training and upskilling workers, maintaining existing collective agreements, and communications. Additional conditions could be attached that incentivize projects to be undertaken in communities affected by transition or experiencing the decline of a major industry.
	Presently, no mechanism exists to reflect the costs of embodied carbon on imports to achieve cost parity between domestic and international goods.	<i>Action to consider:</i> Continue to explore a Border Carbon Adjustment to uplift clean industry	Border Carbon Adjustments (BCAs) can help ensure that imported goods face the same carbon costs as domestically produced goods. Canada should continue to explore establishing a BCA, working with the U.S. and EU, and develop procurement guidelines that require accounting for the carbon impacts of a supply chain.
	Canadian manufacturers of low-carbon products may not be the preferred suppliers for public contracts if international goods are less expensive.	<i>Action to consider:</i> Adapt government procurement policy to favour 'clean' products and prioritize suppliers from affected communities	Creating procurement guidance that recognizes and prioritizes products with the lowest carbon intensity could mean that clean Canadian manufacturers become the preferred suppliers for government contracts, which could in turn create opportunities for Canadian industry and workers.
	Some public sector infrastructure and development projects do not require agreements to be negotiated with neighbouring communities who derive economic benefits from these projects.	<i>Action to consider:</i> Require Community Benefit Agreements on public infrastructure and development projects	Community Benefit Agreements could ensure public infrastructure and development projects achieve social objectives, potentially offsetting negative consequences of development by investing in the social and economic vitality of surrounding communities. Funding should be provided to communities that face capacity challenges to allow them to participate meaningfully in the agreement development process.
Leverage private capital to support sustainable jobs	Record-level profits in the oil and gas sector are not being leveraged to support the clean energy transition.	<i>Action to consider:</i> Establish an excess profit mechanism for emissions-intensive industries	A time-limited excess profit mechanism could be applied to industry profits exceeding a certain level if industries do not meaningfully reduce emissions. Revenues from this mechanism could be leveraged to finance transition programs.
	Some companies are returning profits to shareholders in the form of share repurchases and increased dividends, rather than investing in decarbonization of supporting workers.	<i>Action to consider:</i> Increase the shareholder buy-back tax	The shareholder buy-back tax could be increased to disincentivize stock buybacks and encourage reinvestment in workforce development and decarbonization activities.