

**BUILDING CANADA'S NET-ZERO FUTURE:
A JUST TRANSITION FOR ENERGY WORKERS**



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INTRODUCTION

With the world's third-largest oil reserves, Canada's economy and workers have played a pivotal role in oil production and supporting North America's energy needs. In 2020, Canada's oil production averaged four million barrels per day of which, 94 per cent came from Western Canada. ⁱ Canada also has large natural gas reserves with enough natural gas to meet domestic need for 300 years, including enough remaining for export. ⁱⁱ Through Canada's oil and gas production, we can heat homes, provide fuel for farmers, and support our manufacturing sector, among many other uses.

Canada's oil and gas sector has provided an abundance of meaningful, well-paying job opportunities for Canadian skilled trade workers. In 2018, it was estimated that Canada's oil and gas industry provided 169,000 direct jobs and 550,500 jobs indirectly – 3.1 per cent of Canada's total employment. From 2000 to 2019, the oil and gas sector accounted for an average of five per cent of Canada's GDP; provincially, the oil and gas sector accounted for 21 per cent of Alberta's GDP. ⁱⁱⁱ

With Canada moving towards a net-zero economy in the years ahead, there is an opportunity to continue to green the oil and gas sector, and we support the federal government's ambitious emission reduction goals and other measures laid out in the 2021 Net-Zero Emissions Accountability Act. However, we cannot let good Canadian jobs be lost during the transition. An April 2021 TD report estimates that 50 to 75 per cent of the workers in the oil and gas sector are at risk of displacement in the transition to net-zero through 2050. A Just Transition to net-zero needs to ensure that traditional energy sector workers are supported so they can continue to support themselves and their families. ^{iv}

In a recent Workers Rebuilding Canada survey commissioned by Let's Build Canada (LBC) – a coalition of Building Trades Unions – of skilled trades workers across Canada, findings included that 76 per cent of members are concerned that jobs in the renewable/green sector will have lower wages in comparison to jobs in the oil and gas sector. Renewable jobs tend to have less unionization and therefore less of the benefits that come along with being a member of a union. For example, according to the United States Bureau of Labor, in 2019 the median annual wage for solar photovoltaic installers was \$44,890, while the median annual wage for wind turbine service technicians was \$52,910. Comparatively, jobs in the fossil fuel power sector paid between \$70,310 and \$81,460. ^v

RECOMMENDATIONS:

1. Updating and developing, as needed, government policies and programs that support transitioning workers.
 - This includes investments in apprenticeship training and provincial funding.

2. Conducting labour market analysis to determine how employment opportunities in oil and gas will be impacted by Just Transition and how feasible it would be for workers in oil and gas to transfer to a job in clean energy.
3. Investing in large-scale infrastructure projects to bridge the gap during this transformative transition period until new energy technologies come on stream in order to maintain our skilled trades workforce and offset job losses in the energy sector.
4. Investing in new technology energy projects to create job opportunities for those in the traditional energy sector and help meet Canada’s energy needs, supporting the transition to net-zero.
5. Ensuring labour’s voice is represented on any Just Transition or net-zero advisory groups; unionized labour groups can share workers’ concerns directly and identify what resources are needed to support them.

As Canada’s energy sector undergoes a broad transformation, the Government of Canada needs to ensure a Just Transition is just for all stakeholders – including Canada’s skilled trades workers.

THE NET-ZERO TRANSITIONS IMPACTS ON ENERGY WORKERS

In transitioning to a green economy, the top priority of the Government of Canada should be to support everyday Canadians whose livelihoods are at stake, which includes engaging in meaningful consultation with workers. According to LBC polling, 91 per cent of Building Trades members want to see more government support for the oil and gas sector workers as Canada moves to a greener economy.

Canada has faced large sectoral shifts in its economy before. Beginning in the 1980s and continuing into the 2000s, Canada’s manufacturing sector began to hollow out due to increased automation which led to the decline in middle-skilled, middle-income jobs. From 2001 to 2016, the number of Canadians employed in the manufacturing sector dropped by half a million from 1.98 million in 2001 to 1.48 million in 2016.^{vi} This decline had a particularly strong impact on men who experienced a seven to eight per cent drop in wages depending on their level of education. The decline in manufacturing largely occurred in major metropolitan areas in southern Ontario leading *The Economist* to call the region “the new rust belt.”^{vii} Taking a lesson from the past, Canada risks repeating the same catastrophic job losses for energy workers if we don’t take proactive action.

GOVERNMENT POLICIES AND PROGRAMS TO SUPPORT TRANSITIONING ENERGY WORKERS

1. Apprenticeships and Training

Since its launch, the Union Training and Innovation Program (UTIP) has supported the unionized construction industry and skilled trades workers. Our affiliates and local union halls have utilized UTIP to strengthen apprenticeship training and innovation, including supporting

initiatives like the Office to Advance Women Apprentices (OAWA). The OAWA started in Newfoundland and Labrador, offering wraparound support services to increase recruitment and retention of women in the skilled trades; increasing the percentage of women in the skilled trades to 13 per cent while the rest of the country sits at four per cent. Replicating this model, CBTU utilized UTIP to expand the OAWA to Manitoba, Saskatchewan and Nova Scotia. OAWA's second year report indicates that, among these three provinces, 449 clients have registered to the program, with 30 per cent identifying as Indigenous, well above the initial goal of 10 per cent Indigenous women.

As the Government determines what retraining and upskilling programs will be necessary to support workers impacted by the transition, the Government needs to financially support workers in accessing these programs.

71 per cent of skilled trades workers indicated concerns about the costs of retraining and new certifications as we shift towards a green economy (Workers Rebuilding Canada Survey, August 2021). The federal government should provide grants to workers who wish to upskill or retrain themselves to work in new technologies.

2. Provincial Funding

CBTU supports the creation of a \$2 billion Futures Fund for Alberta, Saskatchewan, Newfoundland and Labrador that will support local and regional economic diversification and specific place-based strategies. CBTU suggests the funding be allocated over five years and distributed through collaboration with local workers and unions who know the needs of these communities and the workforce.

3. Cross Border Mobility

As Canada transitions to net-zero, and there are fewer work opportunities in the oil and gas sector, work opportunities may arise in the United States for skilled trades workers to put their training and skills to good use. There has been a long history of workers in Canada and the United States travelling across borders to fill temporary worker shortages, particularly given that both countries have similar training requirements and certifications.

4. Employment Insurance

As our economy transitions and Canadians in the oil and gas sector face unemployment, it is of vital importance that the Government of Canada reform Employment Insurance and provide sector-specific support for those whose livelihoods are being impacted by the transition to net-zero.

CBTU is advocating for the following changes to EI to better support Canadian workers:

1. Permanently simplify eligibility rules around the allocation of separation monies.
2. Support workers seeking re-skilling or skill-upgrading by ensuring they can promptly receive EI benefits while attending skills training or an educational program.

3. Address delays in receiving EI benefits to support apprentices completing the in-class portion of their training and certification exams.
4. Make improvements to the Canada Training Benefits Training Credit by removing the upper-age limit, lowering the earnings eligibility, and allowing the credit to be applied to related expenses such as course materials.
5. Extend the EI Training Support Benefit from four to 16 weeks, increase the replacement rate to 85 per cent of wages, and remove the one-week waiting period.
6. End the misclassification of workers.

LABOUR MARKET ANALYSIS

The transition to a net-zero economy is unprecedented; the challenges workers face are unprecedented. Therefore, the Government of Canada needs to commission a thorough labour market analysis of the energy sector. This will help determine what policies should be put into place and where funding should be spent. There will be noticeable differences across geographical regions and in different trade occupations. For example, in 2016, Western Canada was home to 85 per cent of Canada’s oil and gas workforce, mainly in Alberta, and this region will likely require more investments to create long-term job opportunities in the energy sector.^{viii}

A November 2021 report by Cicero Group, commissioned by North American’s Building Trades Unions (NABTU) and the American Petroleum Institute (API), evaluated the feasibility of transferability of American oil and natural gas occupations to clean energy occupations. The report found that only one out of 14 oil and natural gas occupations demonstrate reasonable transferability to clean energy occupations based on job requirements, job quality, and location. On the management side, they estimate that one in three occupations demonstrate reasonable transferability and no occupations in oil and natural gas sales demonstrate reasonable transferability due to a mismatch in education requirements.^{ix} The results demonstrate that transferring workers from the oil and natural gas sector to the renewable sector is not an easy or straightforward process. Instead, the report calls for “a more data-driven, nuanced approach to policies that will impact transferability so that American workers are not short-sightedly disadvantaged.” We can assume that Canadian workers will face similar challenges, but further research is required to identify the specific barriers our workers will face.

While several Canadian organizations (as cited throughout this report) have shared predictions and data around projected job losses in oil and gas and levels of investment required, to date, there have been no substantial comprehensive Canadian studies on this front.

Through labour market analysis, the Government should address questions such as:

1. What is the average pay per trade-in oil and gas per province/territory?

2. What is the average pay for jobs in the renewable sector? Are they comparable to oil and gas jobs?
3. Which green jobs pay the best? Where should these jobs be located?
4. Which oil and gas jobs are easily transferable to the renewable sector? Which jobs are difficult to transfer?
5. What training and certifications would be necessary to transition workers in different trades?
6. As this is a transition period, what traditional oil and gas jobs will remain in place for some time? At what points will the majority of jobs have shifted?
7. What are consumers' energy needs? How do energy needs differ by region? How will the changing industry meet these needs?

INVESTMENTS TO SUPPORT TRANSITIONING ENERGY WORKERS

Large-Scale Infrastructure Projects

As our economy transitions to green technologies, the Canadian Government has a responsibility to invest in large-scale infrastructure projects to bridge the gap during this transformative transition period until new energy technologies come on stream in order to maintain our skilled trades workforce and offset job losses in the energy sector. Here we highlight some transformative projects and areas the Government can invest in to ensure jobs are sustained.

Regional Power Grids: Regional power grids such as the Atlantic Loop and East-West Power Grid would help transform the energy landscape of Canada. For example, Canada's Atlantic provinces could take clean energy generated at hydro dams in Newfoundland and Labrador and Quebec, sending it south to Nova Scotia and New Brunswick to replace the use of fossil fuels. The Atlantic Loop would lead to further investments and innovation in green technologies in the area, create jobs for a region that has been greatly impacted by COVID-19, and help Atlantic Canada transition away from coal, faster. Like the Atlantic Loop, the East-West Power Grid would involve building new electrical infrastructure so that British Columbia could sell Alberta electricity. Approximately 98.4 per cent of British Columbia's energy is produced through renewables while Alberta relies on coal for approximately 47 per cent of its energy needs. ^x The Government should play a mediative role between the provinces and provide the necessary funding to see these projects come to fruition.

Hyperloop: Hyperloop technology has the potential to revolutionize travel within Canada by providing emissions-free travel with speeds up to 1000 km/h. This would provide a greener alternative to short-haul flights in Canada and reduce the need for automobiles. CBTU calls on the Government to explore the commercial application of this technology and create standards for the industry to follow.

Industrial and Commercial Retrofitting: While the Government has begun to make investments to support residential retrofits, CBTU calls on the Government to make further investments and incentives to support large-scale retrofits for industrial and commercial facilities to be more energy efficient. This could be accomplished by incentivizing the sustainable manufacturing of new buildings and facilities to minimize Canada's greenhouse footprint.

NEW GREEN TECHNOLOGIES

Support for transitioning energy workers means the creation of jobs that allow workers to use comparable skill sets and continue to earn family-supporting wages. CBTU suggests the Government develop a plan to invest in large-scale renewable projects and technologies that reduce emissions from traditional oil and gas projects. These include:

Small Modular Reactors: SMRs could provide much-needed, reliable energy sources to remote and northern communities and industries, reducing reliance on fossil fuels. According to a study by PricewaterhouseCoopers LLP, the construction and manufacturing of an SMR alone could add \$1.3 billion to Canada's GDP and create up to 1,700 jobs. ^{xi} CBTU calls on the Government to remove regulatory burdens to boost innovation and ensure private sector entities have access to funding.

Hydrogen: Hydrogen could provide up to 24 per cent of the global energy demand by 2050 with a global market for hydrogen expected to surpass \$2.5 trillion by the same year. ^{xii} In addition to helping Canada meet its climate goals, the hydrogen sector is also expected to create 350,000 well-paying jobs over the next three decades that support a skilled workforce according to Canada's Hydrogen Strategy. ^{xiii} CBTU calls on the Government to continue to support hydrogen research and the implementation of hydrogen fuel technologies. Given Canada's access to clean renewable energy and technologies such as carbon capture, Canada is well-positioned to become a world leader in expanding the use of hydrogen technology.

Carbon Capture Technologies: As former Governor of the Bank of Canada Mark Carney noted, without carbon capture technologies, the majority of the world's oil reserves, including Canada's, are at risk of becoming unusable. ^{xiv} Carbon capture technology can achieve an efficacy rate of up to 90 per cent and play a pivotal role in helping Canada meet its emissions targets while maintaining employment in the Canadian energy sector. CBTU calls on the Government to help deploy carbon capture technologies in combination with incentives for industrial retrofits in order to reduce emissions from Canada's carbon emitting industries.

Nuclear Fusion: There are also opportunities for Canada to invest in nuclear fusion. Despite being a leader in nuclear technologies, Canada is the only developed nation without a dedicated nuclear fusion program. Recently, the United Kingdom, the United States and China outlined plans to create pilot nuclear fusion plants as early as 2035. ^{xv} Nuclear fusion has the potential to deliver safe, reliable and emissions-free energy. Unlike traditional nuclear plants, there is no possibility of a nuclear meltdown nor does nuclear fusion produce nuclear waste. Fusion can be applied to industrial scale heating, the production of emissions-free electricity

and hydrogen and presents an opportunity to fight climate change while providing well-paying, middle-class jobs for Canadians.

Geothermal Energy: In addition to producing emissions-free energy, geothermal energy can employ those in the oil and gas industry. The Western Canada Sedimentary Basin, which covers much of Alberta and parts of BC, Saskatchewan, Manitoba and the Northwest Territories, has geothermal resources that can provide utility-scale electricity and heat. Secondly, geothermal energy would be a less disruptive transition for workers in traditional oil and gas jobs with an estimated one in five workers could be directly re-employed directly with minimal training and another 37 per cent could transfer to geothermal energy with little or medium training.^{xvi} However, the geothermal industry in Canada is in its infancy and will require full-scale public investment in order to become a viable clean energy option.

CONCLUSION

Canada's Building Trades Unions welcome the opportunity to share our recommendations with decision-makers. In recent years, changes in the energy sector have led to increases in layoff rates. Displaced workers then experience loss in earnings and significant difficulties in obtaining employment in other industries. Without the appropriate training, support and guidance, workers struggle to secure employment opportunities and face persistent and ongoing hardships, which in turn impact their families and local communities. As the Canadian economy transitions to net zero, energy workers in the construction industry are in dire need of industry-specific support.

The Canadian Government should ensure labour voices like CBTU's, are at the forefront of any and all decisions that will impact workers. This includes having representation during consultations and on any Just Transition or net-zero advisory bodies. Canada's Building Trades Unions stand ready to work with the Government to ensure that energy workers' issues are heard, understood, and addressed, and welcome the opportunity to continue this important work.

ABOUT CBTU

Canada's Building Trades Unions (CBTU) are an alliance of 14 international unions in the construction, maintenance and fabrication industries that collectively represent over half a million skilled trades workers across Canada since our inception in 1908. CBTU are the Canadian arm of North America's Building Trades Unions (NABTU).

Each year, our unions and our signatory contractor partners invest over \$300 million in private sector money to fund and operate over 195 apprenticeship training and education facilities across Canada that produce the safest, most highly-trained, and productive skilled craft workers found anywhere in the world. Canada's Building Trades Unions represent members who work in more than 60 different trades and occupations and generate six per cent of Canada's GDP; our industry maintains and repairs more than \$2.2 trillion in assets.

