Workers Perspectives on Alberta's Coal Transition Program

White Paper

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Labour Education Centre

WORKING GREEN 2050

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LEC is the workforce development agency of the Toronto and York Region Labour Council, which is chartered by the Canadian Labour Congress.

The Labour Education Centre delivers training, education and research programs that that help workers, potential workers and all members of our community access decent work and to moving communities towards social, economic, racial and environmental justice.

LEC's Working Green 2050 program researches and advocates for Just Transition programs for workers and communities.

For LEC's previous research on national and international Just Transition programs: https://www.laboureducation.org/transitioning-to-a-low-carbon-economy/

> Report Contributors

Doray Velo
Executive Director, Lynks-Harvest Sky Services & Supports Society, Hanna AB
Jim Stanford
Economist, Executive Director, Centre for Future Work
Khatereh (Katy) Salimi
Graduate Student, University of Manitoba
Len Austin
Former Coordinator, Just Transition Centre, Keephills AB
Mark Hudson
Professor, University of Manitoba
Roy Milne
Former President, Steelworkers Local 1595
Steve Shallhorn
Managing Director, Working Green 2050, Labour Education Centre

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1. Background and Context of the Alberta Coal Phase-Out and Transition Supports

Alberta no longer uses coal to generate electricity. The last coal plant in Alberta, Unit 2 at the Genesee Generating Station near Warburg Alberta, west of Edmonton, switched to natural gas (methane) on June 16, 2024.

This study is primarily focussed on what happened to a sample of 38 coal workers who lost their jobs as a result of the phasing out of coal to generate electricity in Alberta. Most of the workers interviewed were employed at either the Sheerness mine or generating station near Hanna, Alberta or the Highvale coal mine west of Edmonton.

> Background on the Phase-Out and Transition Supports

The final phase out of coal generated electricity was only 12 years after then-prime minister Stephen Harper's Environment Minister Peter Kent announced new coal regulations in September 2012. Those regulations were enabled by changes to the Canadian Environmental Protection Act 1999. In Alberta those regulations would have meant 12 of Alberta's 18 coal plants were to be closed by 2029. The six newer units could stay open from between 2030 and 2061, depending on the age of the plant.

In Ontario coal plants were closed by 2014, with all parties agreeing in 2003 to phase out coal citing toxic air pollution and greenhouse gas emissions.

Elected in May 2015, Rachel Notley's Alberta NDP government convened a climate change advisory panel in the summer of 2015. Its mandate was to review Alberta's climate change policies and to provide advice on a new set of policy measures to reduce Alberta's greenhouse gas emissions. More than 1,000 people attended public open houses, and 25,000 responses were received through their online survey. Feedback was also received from multiple stakeholders, including Indigenous Peoples, industry, and environmental organizations. That advisory panel produced the Climate Leadership Plan

In 2015, Alberta, with 11% of the national population, contributed 38% of Canada's greenhouse gas emissions. At that time, nearly 55% of the province's electricity was generated from coal. Alberta's significant oil and gas sector contributed heavily to the province's greenhouse gas emissions. With a major UN Climate conference set to begin November 30, 2015 in Paris, the Notley government released its Alberta's Climate Leadership Plan on November 22, 2015. Among other things, it accelerated the phase-out of the six newer coal units to 2030.

Hussey and Jackson reported there were about 3,100 thermal coal jobs in Alberta in 2017. Of these, about 2,480 were in coal mining and processing. They estimated there were an additional 410 power plant jobs, and that they estimated 2,890 layoffs are likely to occur by 2023.[1] Many plants were converted into gas, which require fewer workers than coal generation as gas plants require just one-third of the labour of coal plants.

Steelworkers Local 1595 representing workers at the Highvale mine had a membership of 690. By December 31,2021 only 34 members were employed going remedial work at the mine, and the local was amalgamated with Steelworkers Local 5220. While this study gives some insight as to what happened with Local 1595 members, it is not known how many members of 1595 found jobs in the coal, broader fossil fuel industries or mining in Alberta or elsewhere. Given the long notice of closure, anecdotal evidence and our own interview data suggest that some skilled workers moved fairly rapidly into other mining opportunities.

Separately from any discussions with labour concerning the fate of workers, "off-coal agreements" were negotiated with the three companies that owned the affected facilities, (TransAlta, ATCO, and Capital Power). Companies secured a total of $1.36 billion in compensation over 14 years (2017–2030), with the funds coming from the province's carbon tax on large industrial emitters.

The government's focus was on compensating power companies for stranded assets to maintain investor confidence and to avoid a capital flight as a result of being painted as anti-business. There were no transition programs announced for affected workers or municipalities as part of the off-coal agreements.

As such, without an organized and prepared labour movement in Alberta, the supports that were put in place would very likely not have materialized. The work and organizing that eventually led to the transition supports for coal workers began long before the coal phase-out was even contemplated. The Canadian Labour Congress was the first national labour body to adopt a Just Transition policy, spurred on by the "War in the Woods" in the temperate rainforests of British Columbia in the 1990s, during which environmental organizations were blockading logging camps and pulp and paper facilities and disrupting foreign markets.

[1] Hussey, Ian, and Jackson, Emma. 2019. Alberta's Coal Phase-Out: A Just Transition? Edmonton: Parkland Institute. Note that in the Global and Macroeconomic Context for Transition section of this report, coal job numbers are from aggregate data. A better understanding of what happened to coal workers from facilities affected by the phase-out could be realized with data release from Alberta of how many workers accessed each option of the Coal Worker Transition Program. This could include which institutions accepted the Coal and Electricity Transition Tuition voucher, where workers relocated to when moving expenses were paid, and the number of workers who took the Bridge to Retirement.

One important aspect of the Alberta coal phase out was the support of organized labour for a just energy transition.[2] This was despite the Climate Leadership Plan's inclusion of a coal phase-out, which had come as a surprise to unions. Well prior to the election of the Notley government, and spearheaded by the AFL, the labour movement had proactively established an accepted framework of principles and a policy agenda for Just Transition, to protect workers from being left holding the bag as part of an energy transition.

While there was plenty of opposition from rank-and-file workers, and from the mayors of affected communities, the supportive stance of organized labour was somewhat unique. (In Ontario the affected unions had lined up alongside the publicly owned utility and bitterly fought the closure when initiated in 2003-4). Within a few months, the AFL formed the Coal Transition Coalition, an alliance with the Pembina Institute and Blue Green Canada and several unions that were part of the AFL (Canadian Energy Workers Association, Civic Service Union-CSU 52, International Brotherhood of Electrical Workers, Unifor, United Steelworkers, United Utility Worker's Asoociation, Ironworkers Local 720.)

AFL president Gil McGowan acted as chair of the CTC and immediately organized two town-hall tours of affected worksites and communities. The first tour was designed to hear from the workers and their families about their concerns about the phase-out and what they needed to cope with the changes. The second tour was again focused on the workers, but it also brought in members of the community, so they could discuss how the phase-out would affect the broader community, and cabinet members of the Notley government, so they could see and hear first-hand how the phase-out was impacting workers and communities. Both tours elicited strong emotional reactions from workers.

Based on the feedback received at the town halls and research conducted and commissioned by the AFL, the CTC prepared a set of proposals for a Just Transition program for workers displaced by the coal phase-out. It included recommendations for Employment Insurance top-ups, training allowances, joint worker-employer transition committees in all affected workplaces, relocation allowances, pension bridging for older workers, economic development assistance for affected communities, and a dedicated Just Transition office within the government to manage the programs and funds.[3]

[2] While this may seem surprising from a contemporary perspective, there is an emerging body of historical scholarship documenting the active participation of organized labour in support of environmental reform and protection, including in Alberta. On the Alberta case, see Montrie, C. 2024. What is Labour's Stake?: Workers and the History of Environmentalism in Alberta. Labour/Le Travail 93 https://doi.org/10.52975/llt.2024v93.004

[3] Coal Transition Coalition. 2017. Getting it Right: A Just Transition Strategy for Alberta's Coal Workers. Edmonton: Alberta Federation of Labour.

On the back of the labour-led CTC, in September 2016 Notley appointed a three-person Advisory Panel on Coal Communities to report in early 2017. After doing their own tour of the province with many heated moments, the Panel came back with 35 recommendations under the headings of General Recommendations, Supporting Workers (through training and employment transition services, income security) Research and Policy, Supporting Communities, and Supporting First Nations.

> Coal Workers Transition Fund

Based on the work of the CTC, and the recommendations of the advisory panel, in 2017 the Notley government announced the creation of a $40-million transition fund to finance several support programs for the province's coal workers. Operational by January 2018, there were six components:

1. A bridge to re-employment relief grant;

provided financial assistance to workers as they search for a new job, up to 75% of their previous weekly earnings when combined with Employment Insurance benefits for up to 45 weeks. If a worker found temporary full-time employment (35 hrs/week or more) payments could be paused for up to 12 months.

2. A bridge to retirement relief grant;

Workers had to be at least 53 years old, worked for the same company for at least 10 years and not receiving employer pension of any kind. Workers will receive up to 75% of their previous weekly earnings for up to 72 weeks or a receipt of a pension or when gross employment income is greater than the relief payment, whichever is shorter.

3. Reimbursement for moving expenses

for workers who have to move for a new job; Workers who had to move at least 40 km were eligible for up to $5,000 to take a confirmed new full-time job or for self-employment

4. The Coal and Electricity Transition Tuition (CETT) Voucher

provided workers with a maximum of $12,000 to pursue post-secondary education to train for new careers, within 5 years of being laid off. Originally the worker had to have been laid off before a voucher was issued, but mid-course corrections allowed receipt of the voucher if you had been employed for a year or more and the worksite was closing within the next 5 years, or the worker had received a formal written notice of layoff (regardless of whether the worksite is closing).

5. Career consultants were to be available at each affected worksite

to help workers determine their best options for future employment.

6. Workplace Adjustment Committees.

The provincial government provided employers and unions with a list of qualified facilitators who can be hired to assist employers, workers, and unions with setting up a workforce adjustment committee to create plans for individual worksites.

> Coal Community Transition Fund

A Coal Community Transition Fund of was established in 2017 to support municipalities and First nations affected by the coal closure, $5 million in grants were announced in March 2018

> Federal Coal Initiatives

As the coal phase-out in Alberta was unfolding the federal government was taking several initiatives both domestically and internationally.

// Tightening Coal Phase-Out

On November 21, 2016 Justin Trudeau's government passed further regulations requiring all Canadian coal-fired power stations to be closed down after 50 years of operation, or by 2030, whichever comes first.

// Powering Past Coal Alliance

On November 16 2017, the Powering Past Coal Alliance was launched by the British and Canadian governments at the United Nations Climate Change Conference (COP23) in Bonn Germany to accelerate the transition away from coal power internationally by helping set ambitious phase-out dates, sharing best practice, and unlocking international finance.

// Federal Task Force on Just Transition for Canadian Coal Power Workers and Communities

In April 2018 the Federal Government created the Federal Task Force on Just Transition for Canadian Coal Power Workers and Communities to engage coal communities in Alberta, Saskatchewan, Nova Scotia and New Brunswick, and recommend a path forward. Co-chaired by the Hassan Yusseff, then President of the Canadian Labour Congress, now a Senator, and Lois Corbett Executive Director, Conservation Council of New Brunswick, the Task Force toured affected communities in the four provinces.

The Task Force reported in December 2019 with ten recommendations:

1. Develop, communicate, implement, monitor, evaluate, and publicly report on a Just Transition plan for the coal phase-out, championed by a lead minister to oversee and report on progress.

2. Include provisions for Just Transition in federal environmental and labour legislation and regulations, as well as relevant intergovernmental agreements.

3. Establish a targeted, long-term research fund for studying the impact of the coal phase-out and the transition to a low-carbon economy.

4. Fund the establishment and operation of locally-driven transition centres in affected coal communities.

5. Create a pension bridging program for workers who will retire earlier than planned due to the coal phase out.

6. Create a detailed and publicly available inventory with labour market information pertaining to coal workers, such as skills profiles, demographics, locations, and current and potential employers.

7. Create a comprehensive funding program for workers staying in the labour market to address their needs across the stages of securing a new job, including income support, education and skills building, re-employment, and mobility.

8. Identify, prioritize, and fund local infrastructure projects in affected communities.

9. Establish a dedicated, comprehensive, inclusive, and flexible Just Transition funding program for affected communities.

10. Meet directly with affected communities to learn about their local priorities, and to connect them with federal programs that could support their goals

// Canada Coal Transition Initiative (CCTI)

Also on April 1 2018 the federal government announced Canada Coal Transition Initiative, $35 million over five years to support supports skills development and helps communities move off of coal. Three projects were funded; $693,500 to the Hanna Learning Centre for a hub and concierge centre for business inquiries and entrepreneur support, $2.74 million to the County of Paintearth No18 to support business development and hire transition staff in east-central Alberta, and $200,000 was given to Steelworkers Local 1595 who represented workers at the Highvale coal mine.

// Supporting the Conditions for a Just Transition Internationally

On November 4 2021 at COP 26 in Glasgow, Canada was one of 17 national signatories including fossil fuel producers such as the UK, US, Norway and The Netherlands. Tamong other things these countries pledged: Support for workers in the transition to new jobs, Support and promotion of social dialogue and stakeholder engagement, (new) Economic strategies, and Local, inclusive and decent work.

// Steelworkers Just Transition Centre

Funded by the Western Economic Diversification Canada (now Prairiecan) the United Steelworks local 1595 (Highvale mine) received $200,000 from the $3.63 million Canada Coal Transition Initiative to open a peer-to-peer counselling centre. In part this was necessary as TransAlta, the owner of the Highvale mine, refused to participate in a workplace adjustment committee with workers and their union. While unique in Alberta , this type of peer-to-peer union-run centre has been common practice in Ontario, especially in the auto sector. In August 2025 the Ford government announced $20 million for Protect Ontario Workers Employment Response (POWER) Centres as part of a $70 million expansion in training and employment services for workers affected by US tariffs.

// Alberta Electricity Greenhouse Gas Emissions Significantly Reduced

By 2024, the coal phase-out had successfully reduced Alberta GHG emissions from electricity by about 54% compared to the year 2015 when the Off-Coal initiative was first announced. The remaining electricity emissions are created by the burning of natural gas which is 97% methane, one of the seven regulated greenhouse gases. While emissions of methane from the production of oil and gas are falling, its increased use for electricity in Alberta, Ontario and other provinces will be temporary if Canada is to meet its GHG emission targets.

2. The Global and Macroeconomic Context for Transition

Jim Standford, Centre for Future Work

The phase-out of coal-fired electricity generation and associated coal mining in Alberta carries importance well beyond the impacts of those specific closures. The employment impacts experienced by those workers were profound and, in some cases, very disruptive. The Alberta and federal governments, employers, unions, and educational institutions all played a role in that transition, with policies that were ambitious and important, but not (as evidenced from qualitative results in this report) sufficient.

The lessons and implications of this experience are very relevant for the much larger employment transitions that will be experienced across the broader fossil fuel sector, as Canada and the world evolve toward an energy system that does not depend on combustion of fossil fuels. That global energy transition is accelerating, driven by many factors – not just hotly-debated climate policies. Technological advancements have made renewable energy alternatives cheaper, more reliable, and more competitive than fossil fuel sources, on top of the environmental imperative to phase out most fossil fuel uses. As fossil fuel production and consumption is gradually phased out over coming decades, this will have implications for employment in those industries. The experience of Alberta's off-coal transition thus provides a valuable and timely case study, informing workers and unions, policy-makers, and the broader public about how those much larger employment transitions in the future can be planned and supported to minimize dislocation for those currently working in this industry.

This section of the report will review the macroeconomic and labour market context for the Alberta coal phase-out. It discusses the global trend away from fossil fuel consumption, and the implications for Canadian fossil fuel industries. It describes the current employment footprint of fossil fuel sectors in Alberta and Canada (including coal mining and fossil-fired electricity generation, the two sectors affected by the Alberta phase-out). It describes how that footprint is already changing – again, not mostly because of climate policies, but because of other economic and competitive factors. It considers the outlook for fossil fuel work as the Canadian and global economies transition toward net-zero goals, and the various channels through which labour markets will adjust. These insights help to inform a pro-active and comprehensive approach to planning and supporting future energy employment transitions, one that marshals the full toolbox of policy levers: including incentives for early retirement, opportunities for inter-location and inter-firm mobility, connections to new jobs opening up in renewable energy and other sectors, income insurance measures, retraining and relocation supports, early company and worker/union

engagement in the transition process, and support for municipalities and First Nations. The experiences, positive and negative, with the Alberta off-coal transition are valuable intelligence for designing better policies for the much larger employment transitions that lie ahead.

> The Global Energy Transition is Happening

Thanks to a combination of technological advances, economic and population growth, and policies to reduce greenhouse gas pollution, the global energy system is shifting steadily away from combustion of fossil fuels, in favour of renewable and non-emitting energy sources. Given the intense politicization of energy policy debates in Canada, it would be easy for Canadians to overlook these global trends. But the inexorable reality is that whatever energy and climate policies Canada chooses to implement here at home, the overall direction of the global energy system is outside our control. And since most of the energy produced in Canada is exported to world markets (and even our domestic consumption is shaped by global energy price and technological developments), those global trends will centrally shape our own energy future.
As a share of total energy consumed globally, fossil fuel demand is already declining, with the growth of fossil fuel consumption lagging behind other energy sources, and lagging behind overall economic growth. Within the next five years, global demand for fossil fuels will begin to decline in absolute volumes. According to the International Energy Agency, on the basis of current national energy and climate policies, global demand for oil, natural gas, and coal will all begin to decline in absolute terms before 2030. And under pledges that most governments have made to reduce greenhouse gas emissions (through the Paris Agreement process), fossil fuel demand will fall steeply over the subsequent two decades. In IEA's 'current pledges' scenario, coal use would decline by 77% from 2030 through 2050, oil consumption (for energy purposes) by 59%, and natural gas use by 41%.[4]

It is important for Canadians to understand that this transition away from fossil fuel is not driven solely or even mostly by climate policies to reduce greenhouse gas emissions (over three-quarters of which result from the production and combustion of fossil fuels[5]). Improved energy efficiency and energy conservation efforts are steadily reducing the amount of all energy consumed per unit of economic activity. And renewable energy forms have become significantly less expensive than fossil fuels on a

[4] Forecasts in World Energy Outlook 2024 (Paris: International Energy Agency), https://iea.blob.core.windows.net/assets/140a0470-5b90-4922-a0e9-838b3ac6918c/WorldEnergyOutlook2024.pdf.

[5] "Where Do Emissions Come From? 4 Charts Explain Greenhouse Gas Emissions by Sector," by Mengpin Ge, Johannes Friedrich and Leandro Vigna, World Resources Institute, December 5, 2024, https://www.wri.org/insights/4-charts-explain-greenhouse-gas-emissions-countries-and-sectors.

full-cycle levelized basis. For example, wind and solar systems are now substantially less expensive than fossil fuel combustion for electricity generation, and electric vehicles are cheaper to own and operate over their life-cycles than internal combustion vehicles.[6] The costs of renewable energy systems (including generation, transmission, and storage costs) are falling rapidly with experience, economies of scale, and new technology. For simple dollars-and-cents reasons, then, competitive pressures and technological progress will enforce historic declines in fossil fuel demand. Even newly industrialized countries are taking concerted actions to reduce fossil fuel use (for economic and strategic, as well as environmental, reasons). In China, for example, the IEA forecasts that oil demand will peak in 2027 (thanks largely to rapid market penetration of electric vehicles), and coal consumption will fall 60% between 2023 and 2050.

Regardless of the outcome of continuing climate policy debates within Canada, therefore, it is clear that competitive, technological, and policy changes will lead to the phase-out of fossil fuels in most uses over the next generation. This is the central reality that must shape Canadian approaches to managing the resulting changes in fossil fuel employment here.

> The Scale and Composition of Fossil Fuel Employment in Canada and Alberta

It is often argued that Canada's labour market, and Alberta's in particular, is crucially dependent on fossil fuel-related jobs; this claim is wielded by interest groups opposed to any policies that constrain fossil fuel production and use in order to reduce greenhouse gas emissions. Jobs in fossil fuel industries are certainly important – directly so for the individuals working in those roles, their families, and communities. But they are less significant in the overall picture of Canada's labour market than is typically assumed.

[6] For details, see *Renewable Power Generation Costs in 2024,* by Saled Dardour, Deborah Ayres, and Lourdes Zamora (Abu Dhabi: International Renewable Energy Agency, 2025), https://energiaoltre.it/wp-content/uploads/2025/07/IRENA_TEC_RPGC_2024_ES_2025-embargo.pdf, and "Electric vs. Gas Cars: Is It Cheaper to Drive an EV?," by Courtney Lindwall, Natural Resources Defense Council, July 21 2025, https://www.nrdc.org/stories/electric-vs-gas-cars-it-cheaper-drive-ev.

Table 1 reports total waged employment (excluding self-employment) in several sub-sectors directly related to fossil fuel production, processing, and distribution. They include:

- Oil and gas extraction (including bitumen production).
- Services related to oil and gas extraction.
- Coal mining.
- Petroleum and coal products refining.
- Electricity generation based on fossil fuel energy.
- Natural gas distribution.
- Oil and gas pipelines.

Table 1: Canada Direct Fossil Fuel Employment, 2024

Sub-Sector	Level	10-Year Change
Oil and gas extraction	54,192	-10,114
Oil and gas services	52,365	-28,118
Electricity generation (FF share)	19,090	50
Natural gas distribution	16,858	1,216
Refined petroleum products	15,440	-3,662
Coal mining	10,843	1,052
Oil and gas pipelines	8,530	1,710
// **TOTAL**	**177,318**	**-37,865**
Share of total employment	0.97%	-0.40%

Source: Calculations from Statistics Canada Table 14-10-0202-01 and census data as described in text.

This data is mostly obtained from Statistics Canada's payroll employment survey. In some cases, however, assumptions must be made due to incomplete disaggregation or data suppression (for confidentiality reasons) within the Statistics Canada data:

- The portion of mining services employment attributable to oil and gas services (as opposed to non-fossil mining activity) is estimated on the basis of the share of oil and gas extraction in total mining sector employment net of services.
- The portion of electricity generation employment attributable to fossil fuel generation and transmission is estimated on the basis of the proportion of electricity generation arising from fossil fuel combustion.[7]
- Missing data on employment in coal mining and oil and gas pipelines (suppressed in some years for confidentiality) is estimated and interpolated on the basis of census data.

As shown in Table 1, by these estimates a total of 178,000 Canadians were employed in waged jobs directly related to fossil fuel production, processing, and distribution in 2024. Almost 60 percent of those jobs were in upstream petroleum extraction and services. Direct fossil fuel jobs thus represents just under one percent of total Canadian waged employment. This data excludes self-employment, which is relatively less common in fossil fuel industries (due to their high capital intensity and concentrated corporate structure). Considering total employment, therefore (including self-employment), the labour market's proportional reliance on fossil fuel employment is even smaller. Even if counted as a single industry, fossil fuel employment would not rank in the top fifteen employing industries in Canada.[8]

Table 2 providers corresponding fossil fuel employment data for Alberta, utilizing the same assumptions to fill in missing data.[9] By this estimate, some 117,000 Albertans held waged employment in direct fossil fuel activities in 2024. Over three-quarters of those were in upstream oil and gas activity (both extraction and services). Direct fossil fuel employment accounted for 5.4% of total waged employment in Alberta. Some two-thirds of all Canadian fossil fuel jobs are in Alberta. However, even consolidated as a single industry, fossil fuel production ranks as only the tenth largest employer in Alberta, behind (in descending order): health care, retail trade, construction, education, accommodation, professional and scientific services, manufacturing, transportation,

[7] That proportion equaled 18% for Canada and 82% for Alberta in 2024, and has declined in both cases over the past decade.

[8] Defined at the two-digit level of disaggregation.

9 The task of interpolating missing data for coal mining and oil and gas pipelines was more challenging for the provincial level, due to greater Statistics Canada data suppression for confidentiality. For these two sectors, Table 2 indicates the level of employment reported in the 2021 census (which provides more detailed data on sectoral employment levels), and the 5-year change in employment from the 2016 data. These results this need to be interpreted cautiously, since further employment changes will have occurred since 2021 (likely reduced employment in coal mining, and possibly increased employment in pipelines).

and public administration. Alberta is certainly more dependent on fossil fuel employment than any other province in Canada. Yet it is an oversimplification to conclude that Alberta is 'dependent' on fossil fuel employment; it is equally or more dependent on health care, construction, manufacturing, and many other sectors, as it is on the fossil fuel industry.

Table 2: Alberta Direct Fossil Fuel Employment, 2024

Sub-Sector	Level	10-Year Change
Oil and gas extraction	48,446	-8,764
Oil and gas services	42,889	-23,771
Electricity generation (FF share)	9,269	547
Natural gas distribution	5,420	588
Refined petroleum products	2,721	3,728
Coal mining	1,790[1]	-825[2]
Oil and gas pipelines	6,685[1]	455[2]
// **TOTAL**	**117,220**	**-35,498**
Share of total employment	5.44%	1.96%

Source: Calculations from Statistics Canada Table 14-10-0202-01 and census data as described in text.
1. 2021 census data 2. Estimated compared to 2016 census data.

Of course, there are many jobs in the Canadian and Albertan labour markets that are indirectly related to fossil fuel activity, and which are not included in Tables 1 and 2. Indirect employment linkages to any given 'base' industry are experienced in two directions. 'Upstream' jobs in supply chains which supply any particular industry (with a full portfolio of intermediate products, raw materials, supplies, and services), can be said to 'depend' on their respective base industry for creating demand for those intermediate products. These jobs are often termed 'indirect' employment. 'Downstream' jobs are those in consumer goods and service industries which experience stronger demand as a result of consumer spending by those employed in the base industry and its supply chain. These jobs are often called 'induced' employment. Through these 'multiplier' impacts on indirect and induced jobs, the ultimate impact of changes in employment in a base industry can be larger than the direct employment effects.[10]

However, for numerous reasons, estimates of the 'multiplied' jobs impact of any base industry (such as fossil fuel production) must be treated cautiously.[11] Whether these indirect and induced jobs are indeed incremental to total employment that would otherwise prevail depends on overall macroeconomic conditions – such as the existence of ongoing spare capacity in the economy, strong domestic content in supply chains and downstream consumer industries, and an absence of behavioural adjustments by firms, workers, and consumers. Moreover, so long as fossil fuel production is replaced by other 'base' industrial activity (including renewable energy production and infrastructure, energy efficiency investments, public transit, and more), all of which generate their own indirect and induced job impacts, then the loss of indirect and induced jobs associated with fossil fuel activity will be offset.[12] It is more appropriate, therefore, to focus attention on the direct employment footprint of fossil fuel industries, and the industries that will ultimately replace them.

[10] On this basis, industry advocates claim that total employment from petroleum production is several times larger than the industry's direct payrolls. For example, the Canadian Association of Petroleum Producers claims that a total of 900,000 jobs in Canada's economy "were a result of the oil and gas extraction industry," even though the industry (by its own estimates) directly employs just 140,000 people. This claim rests on the application of very large and untested 'multiplier' factors. See The Economic Impact of Canadian Oil and Gas (Calgary: Canadian Association of Petroleum Producers), April 2025, https://www.capp.ca/wp-content/uploads/2023/12/The-Economic-Impact-of-Canadian-Oil-and-Gas.pdf.

[11] For an overview of the use (and misuse) of input-output industry multipliers, and their limitations, see "Local Multiplier and Economic Base Analysis," by Per Thulin, in Charlie Karlsson, Martin Andersson, and Therese Norman (eds.), *Handbook of Research Methods and Applications in Economic Geography* (Cheltenham, U.K.: Edward Elgar), pp.213-233.

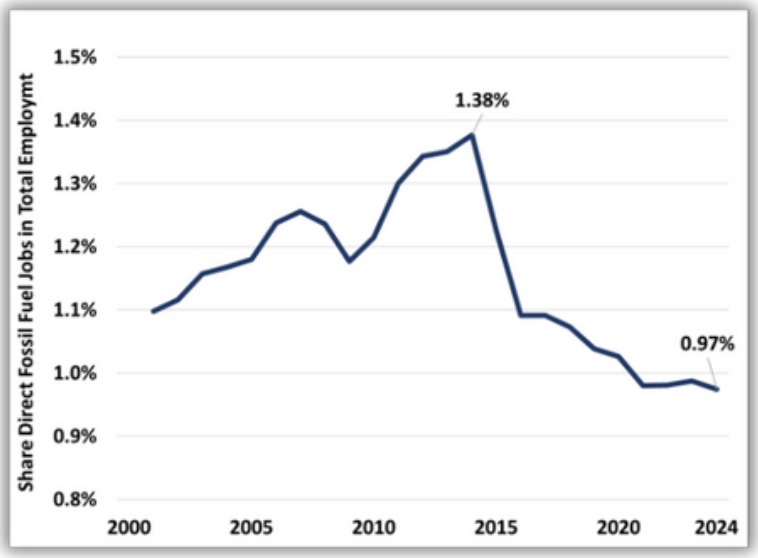
[12] In fact, considerable economic research suggests that the net employment effects of the transition to renewable energy and related activities will in fact be positive, due to the higher labour content of investment and production in those alternative industries. For a survey of that evidence in the Canadian and international contexts, see *Jobs for Today: Canada's Building Trades and the Net-Zero Transition,* by Tyee Bridge and Jim Stanford (Vancouver: Centre for Civic Governance, 2025).

> The Transition in Energy Employment is Already Happening

As noted above, the transition of the global energy system toward greater reliance on renewable energy (and reduced use of fossil fuels) is proceeding, regardless of the twists and turns of climate policy debates in any particular jurisdiction. This historic shift reflects a combination of technological, competitive, efficiency, and policy impetuses, and cannot be ascribed solely or mostly to climate policy. By the same token, a parallel transition away from direct fossil fuel employment in Canada is also already occurring. Direct fossil fuel employment in Canada has declined significantly over the past decade, even though Canadian production of most fossil fuel products has grown. Moreover, the pace of decline of fossil fuel employment (relative to total Canadian employment) has been consistent with the eventual phase-out of fossil fuel employment by 2050 – the timetable for Canada's commitment to reach net-zero status (by which time most uses of fossil fuels will have disappeared).

As summarized above in Table 1, Canada lost about 38,000 direct fossil fuel jobs in the decade ending in 2024. Almost all of that decline was experienced in the upstream oil and gas sector, including both extraction (10,000 job losses) and services (28,000 job losses). In aggregate, other fossil fuel sectors saw little net overall change in total employment over that decade. Due both to fossil fuel job losses, and the simultaneous expansion of employment in other industries, the share of direct fossil fuel jobs in overall Canadian payroll employment fell from about 1.4 percent in 2014, to under 1 percent by 2024. Figure 1 illustrates this decline in the relative employment share of direct fossil fuel employment. The decline was steepest in the first years after the 2014 collapse of global oil prices, but has continued more gradually in the years since. At the pace of relative decline as was experienced over the last decade, the industry's employment share would fall to zero over the next 25 years.

Figure 1. Direct Fossil Fuel Jobs as Share Total Payroll Employment, Canada, 2001-2024



Source: Calculations from Statistics Canada Table 14-10-0202-01 as described in text.

Once again, that decline in fossil fuel employment occurred alongside marked increases in overall fossil fuel production, and hence it is not convincing to 'blame' climate policies for this trend. Total production of oil and liquids in Canada grew 35 percent over the same ten-year period, and natural gas production grew 24 percent. Coal production is the exception to this trend: it declined 38 percent over the decade. Factors behind the reduction in fossil fuel employment include instability in world oil prices (with big price declines in 2014 and 2020), a shift toward automated and less labour-intensive production methods (such as self-driving trucks or in situ production techniques for bitumen extraction), and a decline in the share of revenues that petroleum companies are reinvesting in new projects.[13]

Most of the upstream petroleum jobs that disappeared over the past decade were in Alberta, and hence that province experienced a larger proportional decline in direct fossil fuel employment. Indeed, Alberta accounts for over 90 percent of the direct fossil fuel jobs lost between 2014 and 2024. The proportion of direct fossil fuel work in total provincial payroll employment declined steeply: from 7.4 percent of payroll employment in 2014, to 5.4 percent in 2024. Nevertheless, Alberta remains the province with the largest proportional reliance on direct fossil fuel employment. Other provinces where fossil fuel employment is relatively large (compared to overall employment) include Saskatchewan (2.7 percent of payroll employment) and Newfoundland and Labrador (1.6 percent). In addition to the loss of upstream petroleum jobs, Alberta also lost over 3700 jobs in petroleum refining, leaving just 2700 jobs in that sector by 2014. This attests to a notable deindustrialization of the petroleum supply chain in the province: more oil is being produced, mostly for export in unrefined form, while the value-adding work associated with refining has diminished.

For purposes of the present study, focused on the transition experiences of workers in coal-related activities (mining and electricity generation) in Alberta, it is worth noting that the decline in coal employment in Alberta was a relatively small component of the total loss of fossil fuel jobs over the past decade. According to census data,[14] Alberta lost 825 jobs in coal mining (about one-third of the initial total) between 2016 and 2021. About 1800 jobs remained in coal mining as of 2021, but that number has likely declined further since then (as the phase-out of coal-fired power was completed). In contrast, total coal mining employment in Canada increased by about 1000 jobs from

[13] The declining labour content of petroleum production, and the weaker link between oil industry profits and new capital investment, are explored in *Drilling Down: Oil and Gas Jobs in Transition*, by Janetta McKenzie and Megan Gordon (Calgary: Pembina Institute, 2025).

[14] Recall that Statistics Canada suppresses data on employment in coal mining at the provincial level in Alberta due to confidentiality constraints, thus we must use census data (at five-year intervals) to estimate employment trends.

2014 through 2024 (see Table 1), despite the job losses in Alberta. Curiously, that increase occurred despite a decline in total coal production in Canada.[15] The coal industry is thus the converse of the petroleum industry, with an inverse nature of the relationship between output and employment: upstream petroleum is producing more, but employing less, while coal mining is producing less, but employing more.

Some of the jobs displaced by Alberta's phase-out of coal-fired power were located in the electric utility sector. However, overall employment in Alberta electric utilities grew during this period, with about 1600 positions added in the ten years ending in 2024. Even adjusting for the modest decline in the proportion of electricity generation attributable to fossil fuels,[16] this implies an estimated increase of over 500 positions in electric utility employment associated with fossil fuels. On a net basis, therefore, the overall employment impact of the coal phase-out was relatively small, compared to the bigger shifts occurring in other sub-sectors of fossil fuel work. A loss of perhaps 1000 in coal mining jobs was offset by an increase in employment in the electricity sector (including in other roles in the same companies that phased-out or repurposed their former coal-fired facilities). Of course, for the individuals involved, the fact that overall 'net employment' was not dramatically impacted by the phase-out is small comfort. For those workers, their families, and communities, targeted and effective transition supports were necessary, regardless of whether offsetting jobs might be created somewhere else.

The evolution of energy use within the electricity sector is a good example of the strong potential for successfully managing employment transitions associated with decarbonization of electricity generation. Overall employment in electric utilities will keep increasing thanks to economic and population growth, and to the electrification of new sectors of the economy. Shifting electric utility workers from fossil fuel-related functions, to other functions within the same industry or even the same company, constitutes a relatively straightforward process compared to other transition situations (which may involve crossing occupational, sectoral, or regional boundaries). The successful experience of the phase-out of coal-fired electricity generation in Ontario

[15] The share of total electricity generation in Alberta arising from fossil fuel combustion declined from 90 percent in 2015 when the coal phase-out was announced, to 82 percent in 2024 when it was completed. Because most of the transition was accomplished through the substitution of natural gas combustion, the net impact on overall fossil fuel reliance in the provincial electricity system was muted.

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between 2005 and 2014 – a transition that occurred within a single centrally-planned public utility, and was accomplished without involuntary layoffs – is testament to the strong opportunities for successful transitions within the electricity sector as fossil fuels are phased out.[17]

This steady decline in the relative importance of fossil fuel employment, in both Alberta and across Canada, is mostly attributable to broader economic forces (including new technology, employer cost cutting, and corporate disinvestment) that have little connection to climate policy. And that decline (concentrated in the upstream petroleum sector, even as it increased total production) has occurred largely without active employment or transition supports. Oil and gas workers who lost work in this period were left to fend for themselves, falling back mostly on standard Employment Insurance benefits (available to workers in all sectors), personal savings, or in a few cases company severance entitlements. Many of them would no doubt have gratefully accepted some of the same transition supports (such as early retirement or bridging incentives, tuition rebates, or relocation allowances) as were offered to displaced coal workers under the province's transition plan. This is a painful reminder that employment transitions are going to occur across the fossil fuel sector, regardless of the direction of Canadian climate policy. The choice Canadians face is not whether those transitions should occur, but how they will occur: over what timetable, whether they are planned or autonomous and chaotic, and with or without tailoured supports to facilitate smoother and fairer outcomes.

> Channels of Adjustment in Employment Transitions

In thinking about energy employment transitions, there is an understandable tendency to assume that workers displaced from fossil fuel activities can simply shift to new jobs created in renewable and non-emitting energy systems. To be sure, those alternative energy sectors are indeed creating substantial employment opportunities. Indeed, on a net basis, the energy transition will create more energy jobs than it displaces, by virtue of the higher labour content in renewable energy systems and energy conservation initiatives. Several studies have documented the tens of thousands of new jobs being created in Canada by the expansion of renewable energy and related investments.[18]

However, there are many reasons why the process of employment transition for former fossil fuel workers will be more complex, but in many ways easier to navigate,

[17] For more details on the Ontario experience, see "The End of Coal," by Ministry of Energy and Mines (Toronto: Government of Ontario, 2018), https://www.ontario.ca/page/end-coal. It is important to note that since Ontario imported most of the coal used in its former generation facilities, the phase-out of coal-fired power had a smaller provincial employment impact than in Alberta (where domestic coal-mining was directly affected by the phase-out).

[18] Surveyed in Bridge and Stanford, op cit.

than simply moving individuals from fossil fuel jobs into renewable energy jobs. Firstly, fossil fuel workers may have different skills and interests, or live in different places, than is compatible with new renewable energy jobs. So training supports, relocation incentives, and efforts to make renewable energy jobs more appealing (with higher wages, job stability, union representation, and more) will be necessary to facilitate successful transitions into renewable energy work. More importantly, focusing on connecting displaced fossil fuel workers with new renewable energy jobs overlooks many other channels of adjustment and mobility that, taken together, equip Canada's labour market with a remarkable capacity to adapt to change. Some of these channels of adjustment include the following:

Retirement: On average, workers in direct fossil fuel roles are 2.5 years older than the average for Canada's workforce (41.1 years on average in 2021, compared to 38.6 in the overall workforce).[19] 58 percent of direct fossil fuel workers were over age 40 in 2021, and hence will reach normal retirement age before the commitment to achieve net-zero status by 2050. Supporting retirement (including through early retirement incentives such as bridging programs, enhanced pension benefits, or lump-sum incentives) is likely the easiest way to facilitate the phase-out of fossil fuel jobs without involuntary displacement. This is validated by the experience of Alberta's off-coal transition, in which early retirement provisions were among the most popular and successful of the various transition supports offered (as detailed elsewhere in this report). Moreover, when inter-location mobility is possible across different workplaces or even firms in an industry, retirements can be encouraged even at facilities that continue to operate (while others are phased out); this creates space to absorb junior workers from other locations, who would otherwise face layoff.

Inter-Industry Mobility: Direct fossil fuel employment accounts for under 1 percent of total payroll employment in Canada. When fully developed, renewable energy sectors will account for a slightly larger share (given their higher labour content), but they will still be small in the overall labour market. That leaves around 98 percent of the labour market that is neither losing nor gaining jobs through the energy transition. This includes jobs in many sectors embodying similar occupations and working conditions as fossil fuel work – such as non-fossil resource sectors, construction, manufacturing, transportation,

[19] Calculations from Statistics Canada Table 98-10-0448-01.

and professional and technical services. Over 10 percent of Canadian workers typically move from one industry to another in any given year.[20] Moving to similar occupations in alternative industries is especially feasible in larger towns and cities, which possess more diverse labour markets.[21]

Inter-Regional and Inter-Provincial Mobility: Canadians are very mobile across provinces and regions. Between 2019 and 2024, over 1.5 million Canadians (close to 4% of the national population) migrated to another province;[22] millions more moved within their respective provinces. Inter-regional and inter-provincial flows constitute another important channel of adjustment when the structure of employment changes. Workers who moved long distances to fill fossil fuel jobs (including interprovincial migrants and long-distance commuters) may choose to relocate back to their provinces or communities of origin, either on retirement or in the event that appealing alternative employment opportunities become available there.

Normal Job Churn: The extent to which employment patterns in Canada change on a month-to-month basis is generally underappreciated. Public and media attention focuses on monthly changes in headline net total employment numbers – typically in the order of 20,000 to 30,000 net jobs created or lost in any given month. Thos net changes are very small in relation to a total labour market of 20 million workers. But underneath those small net changes, a very active process of gross churn (including job-creation and job-destruction on a much larger scale) occurs all the time.[23] Transition plans which can enlist those ongoing forces of labour market adjustment and readjustment, hold great potential for facilitating

[20] "Inter-provincial and Inter-industry Labour Mobility in Canada, 1994-2005", by Xuyang Chen and Maxime Fougère (Gatineau: Human Resources and Skills Development Canada, 2010), https://www.researchgate.net/profile/Maxime-Fougere-2/publication/235781189_Inter-provincial_and_Inter-industry_Labour_Mobility_in_Canada/data/0fcfd513756756b9b7000000/Inter-provincial-and-Inter-industry-Labour-Mobility-in-Canada.doc.

[21] Over half of all workers in direct fossil fuel roles in Canada as of 2019 lived in large Census Metropolitan Areas (CMAs); see Employment Transitions and the Phase-Out of Fossil Fuels, by Jim Stanford (Vancouver: Centre for Future Work, 2021), https://centreforfuturework.ca/wp-content/uploads/2021/01/Employment-Transitions-Report-Final.pdf.

[22] Calculations from Statistics Canada Table 17-10-0021-01.

[23] Unlike agencies in some other countries (such as the U.S. or Australia), Statistics Canada does not regularly report data on gross labour market flows. But occasional studies attest to the enormous extent of this ongoing job churn. For example, one Statistics Canada custom survey estimated that some 6 percent of Canadian workers change their employment status in any given month; see "Labour market dynamics since the 2008/2009 recession," by Emmanuelle Bourbeau, Labour Statistics Research Paper (Ottawa: Statistics Canada, 2019), https://www150.statcan.gc.ca/n1/en/pub/75-004-m/75-004-m2019001-eng.pdf.

Transition plans which can enlist those ongoing forces of labour market adjustment and readjustment, hold great potential for facilitating change (such as the gradual decline of an industry) without dramatic mass displacement. Gross job churn (encompassing gross job-creation and job-destruction) in the broader mining and petroleum industry in Canada averaged 23 percent per year over the decade ending in 2022.[24] As of 2024, about 17 percent of workers in the broader resources sector of the economy had been in their jobs for less than one year.[25] By harnessing this ongoing mobility – the result of hundreds of thousands of individual decisions by employers and workers – gradual movement toward a different employment structure (in this case, reductions in fossil fuel employment) can be achieved without cataclysmic shutdowns or displacement. The crucial ingredients for success in this regard include phasing out fossil fuel employment levels gradually over long periods of time; not backfilling voluntary departures from the industry with new hires (who would be recruited into an industry with a limited life expectancy); and providing ample notice of planned downsizing to workers (so they can take advantage of voluntary transition options that arise for them in the intervening period).

> Implications for Transition Planning

This macroeconomic and labour market overview informs several key conclusions that can inform more effective employment transition policies:

- The global transition away from fossil fuel energy is proceeding, and is being driven by many factors (including technology, competition, and efficiency) beyond climate policy. Heated focus on debates within Canada over climate policy should not divert policy-makers from the reality that this transition is well underway, and will continue.

- Similarly, an absolute and relative decline in direct fossil fuel employment in Canada is also proceeding – and on a pace broadly consistent with the ultimate phase-out of those industries over the next quarter-century. Those job losses, likewise, are mostly unattributable to climate policy. In most cases, in fact, they occurred alongside increases in total fossil fuel production. Fossil fuel employment

[24] Calculations from Statistics Canada Table 33-10-0164-01.

[25] Calculations from Statistics Canada Table 14-10-0054-01.

decisions made by fossil fuel employers. With the exception of targeted measures to support employment transitions for workers related to coal-fired electricity generation in Ontario, Alberta, and the Maritime provinces, fossil fuel job losses (arising from private cost-benefit decisions made by employers) took place without pro-active support for displaced workers. They were painful for those workers, their families, and communities. Whatever the strengths and weaknesses of the transition supports provided for workers affected by the phase-out of coal-=fired power in Alberta, therefore, those workers certainly were better supported than the much larger number of Albertans displaced from the (petroleum industry in the same time.

- Reductions in coal-related employment (resulting from deliberate phase-out of coal-fired electricity in Alberta and some other provinces) have constituted a small part of the overall decline of fossil fuel employment over the past decade. However, those events nevertheless were an important opportunity to apply pro-active planning and support programs, to facilitate smoother movement into alternative vocations or retirement. Coal phase-outs provided an early case study in the challenges that will be faced to a much larger degree, as the broader downsizing of fossil fuel industries occurs over coming decades.

- Thanks to Canada's diverse and flexible labour market, fossil fuel workers have a wide array of options to pursue, as they plan for what comes next in their careers. The most obvious and in many ways easiest option is to move into retirement – either on a normal timetable (since most fossil fuel workers will reach 65 before fossil fuels are phased out) or through accelerated incentives. Properly planned and phased in, retirements can absorb most of the displacement associated with declining fossil fuel employment over the next quarter-century. For fossil fuel workers that cannot retire before phase-out is completed, other options are available: mobility to other facilities in the same industry (assuming that the overall industry's downsizing occurs gradually over time); mobility to other industries (especially those where their existing skills are readily applicable); retraining to move into new occupations and industries; mobility to other regions or provinces (supported, presumably, with reimbursement of moving costs); or more dramatic shifts in employment status (such as starting a small business with start-up funds through an adjustment program).

- Given the rich range of potential channels of adjustment to changing employment patterns, workers must have effective input into how support plans are designed and implemented – to ensure that those options best reflect their priorities and circumstances. In addition to ensuring that workers have individual latitude to pick transition options that best fit their circumstances, workers must also have strong collective voice (expressed through trade unions, and the ability to negotiate and oversee transition plans) to shape transition planning.[26]

- While new jobs created in renewable energy and related industries will play an important and helpful role in Canada's labour market as the energy transition occurs, the options available for fossil fuel workers are much more diverse and abundant than just that. Transition plans should integrate the full range of those alternative career options.

- Time is the best friend of successful transitions. The more notice can be provided of the future downsizing of employment, the more opportunities exist for fossil fuel workers to make voluntary and pro-active plans for retirement, relocation, retraining, or alternate employment. In this regard, it is important for firm long-range plans to be established, so that industries can downsize gradually, and workers can plan accordingly.[27] The longer policy-makers delay in establishing firm transition timetables, the more the burden of adjustment will be back-end-loaded, and the more sudden and disruptive the ultimate transition will be.

This broader, macroeconomic and labour market context sets the stage for considering the particular experiences of workers affected by the phase-out of coal-fired electricity generation in Alberta. The report now turns to reporting and evaluating the specific experiences of a sample of those workers, collected through our original qualitative interview data.

[26] The importance of collective voice in shaping effective transition plans is explored in *Worker Voice and Effective Transitions for Fossil Fuel Workers in Canada*, by Jim Stanford and Kathy Bennett (Vancouver: Centre for Future Work, 2025).

[27] The successful twenty-year phase-out of black coal mining in Germany, achieved without any involuntary unemployment for affected workers, is an outstanding example of the potential of long-run supported transition planning. For more details on the German experience, see T*he Ruhr or Appalachia? Deciding the Future of Australia's Coal Power Workers and Communities*, by Peter Sheldon, Raja Junankar and Anthony De Rosa Pontello (Sydney: University of New South Wales, Industrial Relations Research Centre, 2018).

3. Experiences of Transition

Khatereh Salimi, Len Austin, Doray Veno, and Mark Hudson

> Methodology

This report aims to shed light on our primary research question: What has been the experience of workers affected by the coal phase-out, both in terms of the transition process itself, and in terms of their "lives in and beyond coal." Our research intended to fill what we see as a gap in monitoring and assessing the effectiveness of transition supports for workers, as well as to hear and convey the experiences of workers and families who lived the transition.

The research is based on semi-structured interviews with 38 workers or the spouses/partners of workers who were affected by the coal phase-out, and who availed themselves of the transition supports enumerated above. Interviews were conducted primarily over virtual platforms (mostly MS Teams), with a smaller number taking place in-person. They occurred over the summer of 2025. Interview questions were developed jointly within the research team, drawing on the experience of the Hanna-based LYNKS Harvest Sky Services and Supports Society and the USW Just Transition Centre working with affected workers, and the Labour Education Centre's experience with transition research.

It should be noted that this is not an attempt to provide statistically valid labour market outcomes for workers after the coal phase-out. Our research questions are more amenable to interviews, since our interest is in the details of the day-to-day, lived experience of workers and their partners/spouses going through transition. The report builds to some extent on the findings, and affirms many of the recommendations of the Federal Task Force on Just Transition for Canadian Coal Power Workers and Communities.[28] [29] Our intent was to explore the experience of workers several years on from the beginning of the phase-out. We note that in the interest of fulfilling the need for ongoing monitoring and evaluation of the effectiveness of transition supports, survey-based research on medium- to long-term labour market outcomes for affected workers would be a useful supplement.

[28] Task Force on Just Transition for Canadian Coal Power Workers and Communities. 2018. *What We Heard from Canadian Coal Power Workers and Communities.* Gatineau: Government of Canada.

[29] Task Force on Just Transition for Canadian Coal Power Workers and Communities. 2018. *A Just and Fair Transition for Canadian Coal Power Workers and Communities*. Gatineau: Government of Canada.

Given the lack of an existing database of affected workers, we did not attempt a random or proportionate sample of workers, but a modified "convenience sample," starting with those workers for whom members of our research team had personal contact or contact information. Initial emails were sent to affected workers inviting them to participate, and a follow-up invitation by email or phone was made if no response was received. 108 invitations were initially made, and of those, 31 workers and 6 spouses/partners of workers consented to participate in the process. Our participants, mirroring the affected workforce, is overwhelmingly white and predominantly male. We have 4 female workers and 6 female spouses of workers in the sample. There were five sets of spouses/partners in the sample, with each member of the household interviewed separately. We engaged in recruitment in the Cree & Nakoda community of Paul First Nation through contact with the band office, posters, and a QR code to attract Indigenous participation, but were unsuccessful and we have no self-declared Indigenous participants. Participants were provided with compensation for their time, and interviews were between 45 minutes and 90 minutes. The interview questions are provided in Appendix A.

Interview transcripts generated by Teams were edited for obvious transcription errors, and anonymized. An initial list of themes was generated based on our research questions, and on what we expected workers to emphasize in their accounts of the experience of transition. Themes were modified – with several themes and sub-themes added – in response to reading the first several interview transcripts. Interview transcripts were then coded independently by two of the research team members to check for agreement on the meaning and application of the thematic structure. After correcting for a small initial difference in interpretation between the coders, the remainder of the interviews were coded and analyzed using NVivo (Release 15.2) qualitative data analysis software.[30]

> Findings

Across the 38 participants interviewed, employment outcomes varied. Twenty-three participants or their affected spouses/partners are re-employed. Several of these individuals had previously entered the Bridge to Retirement program but later returned to part-time work. Seven participants or their partners/spouses are fully retired.[31] Four participants are unemployed, and they explained that limited opportunities in smaller towns created the main barrier. Many of the employed

[30] Note that this is not a process undertaken by artificial intelligence. Coding involves the researcher reading the full transcript and engaging in the interpretive work of assigning interview data to the thematic codes.

[31] Since five sets of spouses/partners were included in the sample, here we are counting unique re-employments or retirements. For example, if a husband and wife were both interviewed, and each report the husband as re-employed, we count that as a single instance of re-employment.

participants noted that their current income is lower than what they earned in the mines, in some cases substantially. Even so, most stated that their standard of living is acceptable and that they have managed to adjust.

Workers who entered the Bridge to Retirement program mostly emphasized that this option provided stability during a period of uncertainty. They described the payments as a reliable source of income that allowed them to make financial plans with more confidence. Many workers said that after years of physically demanding labor, they appreciated the chance to step away with some measure of security. For households where the main earner was close to retirement age, this bridge reduced stress and prevented the abrupt loss of livelihood. Still, while the general perception was positive, concerns about pensions were common among workers. Several participants only realized after entering the bridge to retirement program that their years of service would be calculated differently, which meant their pension payments could be reduced over the long term. Many felt shocked or disappointed by the pension reductions. This was not the case for every worker, but it was significant enough to be noted as a widespread issue. The disappointment here was not necessarily with the program, but with the mismatch between expectations and outcomes. Workers said they wished this information had been explained more clearly in advance.

The **Bridge to Reemployment** program generated mixed outcomes. Five of the re-employed were back at the mine, engaged in reclamation. Of the others, a majority maintained positions in trades, as truck drivers, millwrights, welders, machinery (graders, loaders) operators, or mechanics. One transitioned into lower-paying employment in retail, and a small number into farming. The latter was reported by participants as low paying and physically demanding work. The top-up to employment insurance gave financial relief during periods of job scarcity, and in cases where guidance from company HR, union, or community-based local staff was available, the process was experienced as relatively smooth. However, many participants found the program difficult to navigate. Rules were often unclear, taxes on top-ups created unexpected financial burdens, and eligibility conditions caused confusion.

For some, **training, safety certifications, and job search assistance** facilitated through employers or union initiatives were reported to have improved workers' employability and helped them move into sectors such as trucking, construction, and trades. However, mid-career workers in particular – those "on the bubble" of the eligibility criteria for retirement—struggled to make use of retraining or reemployment supports, as potential new employers tended to prefer younger applicants and the idea of starting a new career later in life felt unrealistic for many workers. Lack of

information, and restrictions on course availability (especially on-site training opportunities) further reduced effectiveness. Some participants benefited from the program, others experienced it as limited or misaligned with their needs. The difference between positive and negative experiences here was largely determined by age groups.

Workers in their twenties and thirties reported more optimism about retraining and reemployment. They described the bridge programs as opportunities to explore new careers and often succeeded in transitioning into other industries. In contrast, workers in their midlife years consistently reported difficulties. They felt that they lacked both the energy and the time to start over. For them, the phase-out created an in-between situation: not enough years left to build a new career, but too many years to retire. Workers in this age group felt that their needs had not been fully considered in the design of supports. They called for more tailored options, such as partial retirement pathways that would provide stability for them.

The **tuition voucher program** (The CETT) was also discussed in detail. There were some very positive experiences reported, wherein the CETT enabled workers to get crucial retraining (for example, obtaining a Class One licence). Participants said that while the coverage of tuition costs was really appreciated, the practical inability to work while studying made the option unworkable for many. While workers were eligible to use the CETT while on the bridge to re-employment, many still expressed that they were not able to use the CETT because they needed to work in order to make ends meet. Parents especially emphasized that they could not pause their income to pursue education. A worker put it plainly: *"For me to take the time off work to do the schooling, it's kind of hard. You have the money set there to help cover tuition costs, but who's working to bring in the money you need for your everyday expenses?"* Some workers wanted to take online courses, which would have allowed them to combine education with part-time work, but program rules initially restricting eligibility to Alberta institutions only limited such flexibility. Even after expanding eligibility criteria, out-of-province training was only eligible when the program was not offered in Alberta. The result was that tuition supports often went unused by those who might have benefited most. Many agreed that retraining is an important tool, but it must be structured in a way that acknowledges real household needs. We note that the Better Jobs Ontario tuition and expenses benefit, for example, provides up to $35,000 for two-year programs, and $28,000 for programs of a year or less, and can be spent on a wider array of related expenses, including basic living expenses.

None of our participants reported making use of the relocation support funding for workers. Some participants did discuss having to travel further afield for work, ranging from working in more distant towns and communities in the same region, to working fly-in, fly-out positions in the oil sands, living in camps or hotels while on medium-term contracts and returning to their home community between contracts, or taking work in BC. The strains reported in relocation were not about expense. They were about uprooting established lives, including those of spouses and children. Some participants were open to – or even enthusiastic about–relocation and saw better income opportunities in other places, but were anchored by family, community, and in some cases, health that limited mobility.

Support from employer human resources, from the former Hanna Learning Centre (now Lynks), and from the Steelworkers' Just Transition Center played an important role in how workers navigated the changes. Those who had positive interactions with HR described the staff as approachable and effective at providing answers. Workers recalled being able to walk into the office with questions and leave with clear instructions about forms and timelines. In these cases, the support made paperwork easier and gave workers a clearer sense of what options were available. Others, however, said HR communication was slow and confusing, with approvals taking months or with staff unable to answer questions. Similar concerns were raised in dealing with provincial program staff. For unions, experiences were similarly mixed. A number of participants credited their union for pushing hard to secure tuition vouchers and other benefits. They believe that without this pressure, very little would have been offered. Some workers explained that they would not have known where to begin without union guidance. At the same time, other workers felt unions failed to provide timely information, especially around seniority lists and recall rights. The Just Transition Center was noted as a valuable local resource, especially because it provided immediate guidance after layoffs, yet participants also pointed out that it was funded only by a grant[32], and might not last. Together these accounts show that while HR, unions, and the Just Transition Center offered critical points of support, the quality and consistency of those experiences varied greatly.

Communication emerged as a central theme in nearly every interview. Many participants said that the information they received was filled with legal or bureaucratic language that they did not understand. Forms were reported to be long and dense. This left workers uncertain about whether they were making the right choices. The absence of clear, simple explanations was one of the most commonly

[32] Steelworkers Local 1595 obtained grant funding for the Just Transition Centre from Western Economic Diversification Canada.

cited frustrations. In many cases, workers had no choice but to depend on coworkers, friends, or union representatives to explain the rules, because the official documents were difficult to follow and did not provide the clarity that was needed. The evidence shows that the value of financial and training supports could only be realized when people were able to understand how to access them and how to meet the requirements, which meant that communication was just as important as the benefits themselves. In fact, many participants reported that they were not even aware that certain supports existed at all.

Taxes became a major source of frustration. Workers received support payments through the bridge programs but did not always realize these payments were taxable income. As a result, many were surprised by large tax bills at the end of the year. The anger expressed in these cases was intense, with some participants describing the process as unfair. One worker said: *"No one warned us. Taxes should be taken off before they ever give it to somebody. When you're laid off and get a tax bill like that, it's not easy to get it paid."* Others expressed frustration that they would have budgeted differently if they had known ahead of time. Most accepted that income would be taxed but still criticized the lack of upfront communication. The consensus was that while workers did not expect special tax exemptions, they did expect transparency. This finding demonstrates that even when financial supports exist, poor communication can erode their intended value.

Financial concerns extended beyond taxes. Several participants said that when they left the mine or entered bridge programs, they lost extended health coverage. Health insurance was one of the most pressing issues. Families with chronic medical conditions faced high out-of-pocket expenses when their coverage ended. Some said that this made them avoid medical appointments or even stopping treatments altogether.

Mental health and counseling supports were discussed at length. Workers said that losing their jobs created stress, anxiety, and a sense of disorientation. Many described how their identity was closely tied to being miners, and once that was taken away, they felt adrift. Some workers spoke of increased tension at home and the difficulty of explaining the situation to their families. Having access to counseling was limited. They said that having someone to talk to reduced feelings of isolation and provided tools to manage stress. A participant explained, "*Nobody was checking in on these guys to see how they were doing mentally… there should have been a really big focus and there still should be a really big focus on that." T*hey also added that losing health benefits cut them off

from professional help at the very moment they needed it most. Lack of affordable and consistent services meant that some relied on informal supports, while others struggled alone. In one case, a participant noted that a co-worker had died by suicide during the layoffs.[33] Participants repeatedly stated that mental health resources should be a permanent feature of transition programs, not an afterthought.

Another point in the interviews was the need for straightforward information about long-term **financial implications** of these programs. Workers said that decisions made in the moment, such as whether to choose Bridge to Retirement or Bridge to Reemployment, had consequences they did not fully understand until later. Some felt that they had been rushed to make choices without complete information. Others said that they relied heavily on union representatives to interpret the programs, which they appreciated, but they also questioned why such important information was not more directly available from official sources. This point again ties back to the broader issue of communication but emphasizes the long-term perspective that workers wanted when evaluating their options.

Participants also spoke about the emotional side of l**osing their community**. Mine closures affected entire communities. Hockey arenas, local events, and other community organizations suffered when mining jobs disappeared. Workers said that these losses deepened their sense of dislocation and made the transition harder for families. The decline was described as a "domino effect," where every family that left meant fewer children in schools, smaller sports teams, and less participation in local activities. Housing prices were reported to decline substantially, as well, severely limiting mobility. For many workers, the supports offered to individuals did not address the broader social impacts they were experiencing. At the same time, some highlighted that a sense of togetherness and new families moving in helped keep the community alive despite the losses.

Most participants said that they were ultimately satisfied with their **overall situation** after the phase-out. This is not to say that workers did not report a sense of loss, on several dimensions of life quality, relative to the high degree of satisfaction with their lives while they worked in coal. Some reported losses in income, some lamented the loss of stable scheduling that had provided opportunities for good work-family balance and to take part in parenting and community life. Others reported a loss of camaraderie.

[33] Tragically, further inquiries with former coal miners by one of our interviewers suggest that at least four workers have taken their own lives since the layoffs began. We have no way of knowing, in this research, the extenuating circumstances of the suicides, or the extent to which they were directly or partially attributable to job loss. They do, however, speak to the acute need for expanded mental health services in transition, and more generally in Alberta, as per the report by the CHMA (2024) on the State of Mental Health in Canada, which highlights the high rate of suicide in Alberta and the very limited access to mental health professionals in the province. See CHMA - Edmonton (2024). https://edmonton.cmha.ca/news-releases/2024-state-of-mental-health-report/

While many expressed that they wished they could have continued on in the coal industry until retirement, they simultaneously expressed that they had “made it through alright,” despite anxieties, relationship strains, and uncertainty about the future during transition.Some pointed to improvements in their lives in terms of work scheduling and no longer having to deal with the tough physical toll and health complications of work in coal. Some are making better money now than prior to the phase-out. Others reported that while their post-transition employment isn’t ideal (for example, working two-week-on and two-week-off shifts in the north, and being away from family), they are making it work and are feeling OK about their situation. At the same time, many workers said that the technical details of program eligibility and outcomes were not always communicated clearly, and this has caused ongoing frustrations and problems. For instance, some believed that once they entered a bridge program, they would retain full access to employment benefits. Workers emphasized that these details should be explained upfront in clear terms. Gaps in communication can undermine confidence in transition measures even when the programs themselves are fundamentally strong. Also, the COVID-19 pandemic overlapped with the transition for many workers, which compounded stress and uncertainty. Several participants said that searching for jobs during lockdowns was nearly impossible. Businesses were closed, hiring slowed, and retraining programs were disrupted. In this context, local supports became even more important.

Despite frustrations, and a frequently expressed anger at the reason for the loss of their jobs, many workers emphasized that they were very grateful for the supports they did receive. They acknowledged that the programs represented an effort to ease the transition and that, compared to doing it alone, the supports made a big difference. Participants described their overall satisfaction with the outcome of their transition, even when specific elements were challenging. This sense of appreciation was common and demonstrates that while gaps existed, workers recognized the value of having a structured system in place. Some said they felt lucky to have had access to retraining and bridge programs. Some said these opportunities gave them a clearer path forward. For many, gratitude for the supports created a largely positive view of the overall process.

Throughout the interviews, workers emphasized that what mattered most was clarity, predictability, and personal support. They wanted to know what to expect, to have someone they could turn to for answers, and to feel that programs were designed with their real-life circumstances in mind, with input from people who were experientially familiar with their lives and livelihoods. Where those conditions were met, workers reported satisfaction and stability. Where they were absent, workers reported stress, frustration, and confusion.

> Recommendations

The findings from this research show that the transition supports put in place were generally effective in helping workers move through the phase-out, but they also reveal areas where improvements could make future programs more accessible, transparent, and supportive. Several broad implications can be drawn that would inform how policy makers, employers, and other stakeholders might design or refine just transition measures.

1. No public transition funding should be made available to any company or industry without an agreed transition plan including robust supports for workers and their communities. Workers, unions, municipalities and First Nations as well as industry need to be consulted by government as a transition plan is put together. Government should ensure that all relevant ministries are engaged so that all existing programs (federal and provincial) can be examined before new programs are put in place to fill any gaps.

2. Communication must be prioritized. Workers repeatedly described forms and program information as confusing and overly technical. This caused unnecessary stress and led to misinformed decisions. The clearest example was taxation. Many workers did not understand that their support payments would be taxed as income and were caught off guard by large end-of-year bills. The implication is that all communication around transition programs should be straightforward, concise, clear, and tailored to the English literacy levels of expected recipients. Materials should be available through the employer, union, libraries, employment service centres and on-line. Where forms cannot be simplified, there should be staff available to walk workers through the language and explain the implications of each choice. Clear communication builds trust and prevents financial surprises.

3. Workers consistently expressed a desire for a human point of contact. The absence of a dedicated caseworker left many people unsure about how to proceed. They wanted someone who could l listen to their personal circumstances, provide tailored advice and help them navigate the bureaucracy, and clarify the financial implications of their options. This model could be incorporated into future programs by assigning caseworkers to individuals or

households. While expert advice should be involved, in many cases recently displaced workers themselves could be trained and hired to fill this role, replicating the successful example of the Steelworkers Just Transition Center, where a former coal miner provided trusted guidance. This would not only create new employment opportunities but would also ensure that advice comes from people with direct experience, who are trusted, and who are able to relate easily with transitioning workers.

4. The importance of mental health supports cannot be overlooked. The phase-out created stress, anxiety, and uncertainty. Workers spoke openly about the difficulty of losing not only their jobs but also their sense of identity tied to those jobs and their communities and relationship strains. The implication is that mental health services should be built into transition programs from the outset, ensuring that they are widely accessible and ongoing rather than ad hoc. This would allow workers and their families to manage the emotional impact of transition as well as the financial and practical challenges.

5. The structure of financial supports requires attention. Workers who entered bridge programs lost access to health benefits, creating difficulties for families with medical needs. Pensions were sometimes smaller than anticipated, leading to disappointment and insecurity. Taxation was a source of frustration because it was poorly communicated. The implication here is that financial supports should be designed to preserve a sense of stability. Benefits coverage could be extended during bridge programs, or at minimum alternative coverage options could be provided. Pensions could be recalibrated to avoid sudden drops in income. Communication about taxation must be direct and transparent so that workers can plan ahead.

6. Retraining and Education programs need to consider living expenses as well as tuition. Workers explained that tuition support alone was insufficient, given the practical difficulties with doing schooling while working. Future programs should provide living stipends in addition to tuition support so that retraining becomes a realistic option for workers who need to support their families. Without this, training will remain out of reach for many of the people who need it most.

7. Age cohort differences must be taken seriously. The group of workers in the 45–54 age range felt trapped between retirement and reemployment options. They were too old to easily start new careers but too young to retire comfortably. This suggests that transition programs should include tailored pathways for this cohort. Options might include partial early retirement or targeted financial supports. Addressing the needs of this group directly would prevent them from falling into a policy gap.

The implications of this research point toward designing transition programs that are more personal, transparent, and flexible. Programs should combine financial stability with human guidance. They should include mental health, and counseling supports as a standard feature. They should recognize differences between age groups and provide realistic options for all. They should ensure that retraining comes with both tuition and living support. And above all, they should communicate clearly and consistently.

The broader implication is that when governments, employers, and unions work together to create transition programs, the focus should be on reducing uncertainty and building communication. Workers reported high satisfaction when they felt supported, understood, and informed. When those elements are replicated and the gaps addressed, future transitions in energy or other sectors can be managed in ways that protect not only the financial security of workers but also their sense of dignity and well-being.

Appendix 1: Interview Schedules

A. Worker

1. Consent Process

2. Demographics:
    - Age (prompt with ranges: 18-24; 25-34; 35-44; 45-54; 55-64; 65+)
    - Gender Identification
    - Years in the coal industry
    - Race/ethnicity
    - Where did you live when working in the coal industry?
    - Where do you live now?

3. Can you tell me a bit about your job in the coal industry?
    - How long did you work in the industry?
        - What kind of work did you do, where?
        - Describe the work itself—what did your "day-to-day" look like?

4. What kind of life situation did your income from that work allow? Do you mind telling me a bit about your lifestyle, home life, leisure when you were working in coal?

5. And can you tell me a bit about your situation now?
    - Are you working?
        - Yes:
            - What kind of work?
            - How do you like it?
            - Were the skills you had transferable?
            - How does the income compare?
            - How about other aspects of the work (prompt: benefits, pensions, holidays, hours, etc.)
        - No:
            - Tell me about that. What has the job search been like? What obstacles are there to you working again?
    - Has your life changed in other ways, apart from, or because of your work situation? (prompt: Home, leisure, social connections, family)

    - Overall, would you say you were better or worse off now than you were while working in coal?

6. The main focus of our research is about the transition process itself. Can you describe that time in your life (contingent on transition being resolved in some sense; otherwise, discuss in the present)?

- Did you apply for any of the Coal Affected Workers Program?
- Prompt with Programs if necessary:
    - Bridge to Re-Employment?
    - Bridge to Retirement?
    - Relocation Assistance?
    - Coal and Electricity Transition Tuition Voucher (CETT)?
    - Employment Training?
- What kind of help did you have in getting new work/moving into retirement?
- Was there help available, like career counselling or help developing a transition plan for you, at your worksite? What about off the worksite?
- If there was retraining, can you describe it?
    - (prompts: how did that happen? What was involved? How long was the training or education program? How much money did it cost? Did you have to travel?)
- Can you talk about any other specific supports that were supposed to be available to you through the coal transition: (employment counselling or placement; tuition; others…FALC, Lynks, Steelworkers Just Transition Center, please list).
- Were there aspects of the transition supports, in particular, that you found frustrating that didn't work for you?
- What, if anything, did you find helpful?
- Looking back on your experience with transition, is there anything that you would have done differently given the chance?

7. Is there anything else you think we should know about your experience that I haven't asked you? Anything that you think would help make these challenges less tough for any workers that go through it in the future?

B. Spouse/Partner

1. Consent Process

2. Demographics:
    - Age (prompt with ranges: 18-24; 25-34; 35-44; 45-54; 55-64; 65+)
    - Gender Identification
    - How long did your spouse/partner work in the coal industry?
    - Race/ethnicity
    - Where did you live when your spouse/partner was in the coal industry?
    - Where do you live now?

3. What kind of work did your spouse/partner do in coal or electricity?

4. Do you mind telling me a bit about your lifestyle, home life, leisure when your spouse/partner was working in coal?
    - Did you have paid employment during this time?
-

5. And can you tell me a bit about your situation now?
    - How has the transition out of the coal industry been for you and your family?
        - Prompt: Have there been changes to your economic situation?
    - Are you working for a wage or salary now? Can you tell me about that?

    - Has your life changed in other ways, apart from, or because of your work situation?
        - Prompt: Home, leisure, social connections, family. Implications for friendships, relationships.
    - Overall, would you say you were better or worse off now than you were while your partner/spouse was working in coal?

6. The main focus of our research is about the transition process itself. Can you describe that time in your life (contingent on transition being resolved in some sense; otherwise, discuss in the present)?
    - Were there any supports that were helpful during the transition out of coal? Prompt with Programs if necessary:
        - Bridge to Re-Employment?
        - Bridge to Retirement?
        - Relocation Assistance?
        - Coal and Electricity Transition Tuition Voucher (CETT)?
        - Employment Training?

- From what you could see, what kind of help did your spouse/partner have in getting new work/moving into retirement?
- Can you talk about any other specific supports that were supposed to be available to your partner/spouse, or to your family, through the coal transition: (employment counselling or placement; tuition; others...FALC, Lynks, Steelworkers Just Transition Center, please list).
- Were there aspects of the transition supports, in particular, that you found frustrating that didn't work for your family/spouse/partner?
- What, if anything, did you find helpful?
- Looking back on your experience with transition, is there anything that you would have done differently given the chance?

7. Is there anything else you think we should know about your experience that I haven't asked you? Anything that you think would help make these challenges less tough for any workers, their partners, or their families, that go through it in the future?