Labour Education Centre/ACW
Just Transition: Exactly What's in it for Workers?
Alberta

May 12, 2022

Case Study: Phase out of Coal Fired Electricity Generation in Alberta

Context

The Labour Education Centre in Toronto, which is a project of the Toronto York Region Labour Council, received funded from the Adapting Canadian Workplaces to Climate Change (ACW) project in 2018. The funding was to examine four cases of coal-fired electricity plants in 3 locations, 2 in Australia, Alberta and Ontario. The focus was on what happened to the workers and their communities during and after the plants and mines closed, and what are the lessons learned about ensuring a Just Transition for these workers, their families and their communities. In 2019 the Parkland Institute in Alberta published "Alberta's Coal-Phase Out: A Just Transition?" (Hussey and Jackson, 2019) That report was the precursor to this case study, which focuses more on some of the impacts on communities of the coal plant closure. Additionally, Ian Hussey contributed a great deal of the writing to this case study.

Alberta is a province known for oil and gas production as well as mining and export of bitumen, rebranded in 2010 from Tar Sands to Oil Sands. Coal power was over 50% of Alberta's installed capacity in 2015. However, coal's dominance in Alberta's electricity market has steadily decreased since the late 1980s, when coal-fired units provided over 80% of Alberta's electricity. (AFL and CTC 2017, 9) In 2018, coal-fired electricity was 47% of power generation in Alberta. Concurrently, gas-fired generation in the province has increased from about 10% in 1988 to 42% in 2018 (AFL and CTC 2017, 9; Clancy 2019). In March 2019, coal-fired power plants only provided 35.5% of Alberta's electricity, gas-fired plants supplied 47.2%, wind provided 9%, hydro added 5.6%, and 2.7% came from other sources (AESO 2019, Hussey, 2019).

In 2016, five of Alberta's top 10 industrial emitters of GHGs were coal plants (Thibault and Read 2016). In 2017, there were about 3,100 workers in Alberta's coal power plants and their associated mines (AFL and CTC 2017, 6, and the entire electricity industry employed 2% of Alberta's workforce and produced 1% of the province's gross domestic product. The industry was responsible for 17% of Alberta's greenhouse gas (GHG) emissions (Vriens 2018, 5).

There are about 20 municipalities and First Nations impacted by the coal phase-out in Alberta. Most of them are rural communities, and a few larger towns are bedroom communities of the provincial capital, Edmonton. (Hussey, 2019)

Effect of Changes in Government

The politics of specific Canadian political parties have affected this case study. The federal Conservative government lead by Prime Minister Stephen Harper initiated a phase out of coal electricity generation with some exceptions by 2030. This move by a government better known for its deep commitment to the oil and gas industry including the bitumen oil sands and policies antagonistic to the environmental movement is oft forgotten. The Harper government was defeated in October 2015 by the Liberal government led by Justin Trudeau. Trudeau's Liberals have tried to walk a fine line of supporting the oil and gas industry while instituting a carbon tax and supporting the Paris greenhouse gas reductions. Also, in 2015 the social democratic New Democratic Party of Rachel Notley won a surprise victory in the Alberta provincial election, to be defeated in 2019 by the United Conservative Party of Jason Kenny, who had been a key minster in the federal Harper government. Climate change was a key issue in all these electoral campaigns.

As noted above, in May 2015, the NDP, led by Rachel Notley, won its first ever government in Alberta. The NDP's platform included commitments to accelerate the phase-out of coal-fired electricity generation begun by the Harper federal government in 2012, and to expand wind and solar energy production. One of the main reasons to speed up the closure was that air quality in Alberta's cities is among the worst in Canada. (Thibault and Read, 2016) The health costs of Alberta's poor air quality from burning coal for electricity have been estimated at $300 million per year (Anderson et al. 2013).

According to former policy advisors in the Notley government there were other reasons for the acceleration. With the Paris Climate conference set to begin November 30, 2015, the government was feeling pressure to reduce emissions. Pressure was also felt from the brand-new Trudeau federal government, which was keen to be seen to be ready to meet the Paris commitments then in development. The federal Liberals wanted to demonstrate the strength of a new government's interest in climate change and the Notley government wanted to present a different image of Alberta as a province with environmentally responsible electricity – generating industry. These seismic shifts in the Canadian political landscape were welcomed by other nations at the Paris convention, where the oft mocked Harper government was not missed.

The Transition of Alberta's Coal Power Corporations

Alberta's Climate Leadership Plan was announced in November 2015, six months into the NDP's mandate. The plan included a coal phase-out by 2030, a carbon levy on transportation and heating fuels, an annual oil sands emissions cap of 100Mt, a directive to increase renewable energy in the province from 9% of total power generation in 2015 to 30% by 2030. The plan also created Energy Efficiency Alberta, a Crown corporation that promotes and channels public funds toward energy efficiency (see Government of Alberta 2015a, (Hussey, 2019, 2020). The plan was supported by the federal liberal government and both levels of government made policy and financial decisions to ensure the success of the coal phase out. The plan was developed very quickly to both meet the Paris commitments and to demonstrate the change in Alberta. (https://open.alberta.ca/dataset/da6433da-69b7-4d15-9123-01f76004f574/resource/b42b1f43-7b9d-483d-aa2a-6f9b4290d81e/download/clp_implementation_plan-jun07.pdf) downloaded on May 22, 2020

The Notley government's climate plan targeted the province's six youngest coal units (six units in three plants), units not affected by Harper's regulations. In 2015, TransAlata, ATCO and Capital Power, three publicly traded corporations, owned the six units. The remaining 12 units would all have been phased out by 2030 under the federal regulations implemented by the Harper government. This nuance got lost in the work of the Notley government and they were blamed for what was essentially the policy of the federal Conservative government. The companies planned to convert the units to gas-fired units over the next five years. Under the Harper regulations, the youngest of these coal units could have operated until 2061.

The government convened an Advisory Panel to work with companies and communities on the Climate Change Leadership Plan. (https://www.alberta.ca/climate-leadership-discussion.aspx) While a trade union worker (Unifor) was part of the 5-member Climate Leadership Plan Advisory Panel it was a mistake not to engage labour in the coal sector immediately and aggressively). The government thought that they had time to do this as the units they targeted were not slated for immediate closure or transition and would not close for over a decade. At the same time the federal government was drafting regulations that would have ensured the plants could transition to natural gas, which would have preserved some jobs and kept a corporate tax base in many communities. The companies, however, sped up the times lines for the closures and the transition to gas-fired plants. According to a former policy advisor in the Notley government, in retrospect, it may have been a mistake not to engage the workers, their representative unions and community representatives earlier in the process. The compensation offered to the companies was done in "good faith", but the agreements should have included provisions for the workers and the communities. However, according to former policy advisors in the Notley government, the government thought that the workers would not be immediately affected by the closures.

Closing or converting coal-fired plants to gas was very complicated in Alberta, especially for a new and novice government. This was in part due to the deregulation of Alberta's electricity market. This process began in 1995 and by the end of 2000 the province's energy market was fully deregulated and most of the power plants in the province were privately owned (Wallace 2001). This meant that there were multiple players on multiple levels to be consulted and supported and contracts developed with the power companies that generated the electricity as well as the companies licensed to market the power. The government was concerned about capital flight, initially in the coal sector but potentially into oil and gas. The Ministry of Energy was directed to avoid stranded capital in the coal-phase out. (Government of Alberta, 2015b) The 3 main power companies, TransAlta, ATCO, and Capital Power were among the province's largest power-generating corporations in 2015, and this gave the companies leverage in their negotiations with the provincial government (Vriens 2018,). The government was concerned about maintaining investor confidence hoping to attract billions private investments to increase Alberta's capacity for renewable generation to 30% of total electricity production by 2030. While the agreements are confidential, some of the details that have been made public are that the companies agreed to keep their headquarters and a nominal number of employees in Alberta. They also committed to continue investing in the province's power system. Crucially there was no commitment required of the companies for a Just Transition for workers or communities in return for the $1.1 billion in compensation to TransAlta, ATCO and Capital Power.

Companies expect new gas plants to operate for 30-35 years, and this may make the firms and the province vulnerable to future federal regulations on gas-fired plants, cheaper renewables, or international pressure. According to the new federal regulations, coal-to-gas units can operate 5-10 years past their federal end-of-coal life, depending on their GHG emission profile (Government of Canada 2018). Ideally, this gas-fired capacity will be replaced by renewables in the late 2030sThe increased speed of the closures and conversions led to unanticipated impacts in the coal communities.

At the same time as the Notley government was trying to implement the Climate Change Plan they were facing many concurrent and pressing issues, including:

1. The companies began the process of closing or transitioning to natural gas much sooner than governments expected.
2. Changes to the existing industrial carbon price were in development.
3. The creation of renewable energy targets accompanied by the development and implementation of procurement policy.
4. The transition of the electricity market from energy-only to include a capacity market under the direction of the Alberta Electric System Operator. These policy changes were a huge responsibility for a new government whose party had never formed a government in Alberta. They were new and untested and trying to act quickly to affect social change in the province.

Managing these issues at the same time as trying to change Alberta's direction on climate change was complicated and may have been one of the reasons the government didn't immediately focus on the needs of the workers and their communities. The government's position was that the companies had been given a long transition period and the closures were not expected to happen as quickly as occurred.

From Zero to Hero: Alberta's Transition Programs for Coal Workers

Alberta's coal workforce

Of the 3,100 thermal coal jobs in Alberta in 2017, about 2,480 were in coal mining and processing and all these jobs are likely to be gone by 2029. Predictions are that an additional 410 power plant jobs will be terminated by 2029. This is because gas plants require just one-third of the labour of coal plants (see Vriens 2018, 13). Based on the coal-to-gas conversion plans of the three impacted companies, most of these estimated 2,890 layoffs are likely to occur by 2023.

While increasing renewal power generation and energy efficiency will create jobs, these jobs may not be equal to those lost through the closures and subsequent transitions. Also, those workers with years of experience in the mines and running coal-fired machinery may have difficulty transitioning to using new technology. It is important to note that Alberta is losing power plant and mine jobs that are mostly unionized positions and is gaining mostly short-term construction jobs, many of which will not be unionized because of anti-union legislation in Alberta. (https://csu52.org/end-double-breasting-alberta-labour-code/)

After hearing from municipalities and unions about the lack of programs for communities and workers, in September 2016, the Alberta government established an advisory panel to examine potential impacts of the coal phase-out and to identify ways to support worker transition (Government of Alberta 2016b). The panel was tasked to consult with coal workers and their unions, communities, including municipal and First Nations leaders, small business and community economic development organizations. The advisory panel's recommendations to the government were released in September 2017 (see Government of Alberta 2017d). The thirty-five recommendations were divided into four sections: General Recommendations, Supporting Workers, Supporting Communities and Supporting First Nations. Shortly thereafter the government announced the creation of a $40-million transition fund to finance several support programs for the province's coal workers (Government of Alberta 2017b and 2017c). The decision to consult the local communities was driven, in part, by the local mayors approaching their local MLAs.

The Alberta Federation of Labour led the Coal Transition Coalition that became an effective advocate for the workers and their communities, hosting town hall meetings and talking with workers, their unions and their families. They published a report in March 2017 that includes four workforce transition case studies to identify best practices and lessons that might be useful for Alberta's transition away from coal power (see AFL and CTC 2017). Many of the recommendations from the coalition's research were mirrored in the recommendations submitted to the provincial government by its advisory panel.

The government's financial, employment, and retraining programs for workers began to operate in January 2018 (Government of Alberta 2017c). This was after policy advisors presented the Premier with a list of supports for workers and were told to come up with a better plan. When they did, it was the most comprehensive of the 4 cases examined in this study.

The Seven R's of Just Transition

The Labour Education Developed the Seven R's of Just Transition based on conducting 4 case studies of Just Transition programs for workers affected by the closure of coal plants in Canada (Ontario, Alberta) and Australia (Latrobe Valley, Victoria and Port Augusta South Australia). Each situation was different, of course, but examination of these 4 cases, as well as a literature review identified several programs put in place to assist workers and their communities to adjust to plant closures. As a result, the Labour Education Centre has categorized the types of assistance into these Seven R's. The seven categories are:

1. Re-deployment – different, perhaps related jobs within the same employer and/or industry
2. Re-education/training – grants or assistance to learn new skills or change careers accompanied by income support that would allow the affected workers to access the programs
3. Re-employment – grants that provide support for workers to transition to new jobs
4. Rehabilitation – workers may be employed in the decommissioning of the plant or mine, or re-habilitation of the site. (Workers who were the last the leave often find difficulty in finding new jobs, as the labour market has become flooded with former colleagues.)
5. Re-investment in the community – this would include both social and economic investment to ensure communities are not hollowed out by plant closures and maintain a sense of community pride. This might be investing in a worker-led community economic development strategy to re-build and re-vitalize communities after the departure of a major employer and must also include:
    a. Support for counselling services

   b. Services for victims of domestic abuse and/or family violence
   c. Support for childcare services to ensure that workers can access new employment, training or re-education
   d. Income support to pay for food and cover basic expenses while displaced workers are re-training or in education programs.
   e. Public works, recreation and/or infrastructure projects
   f. Energy efficiency projects for homes, businesses and institutions
6. Re-location – assistance to move a substantial distance for a new job that would include moving costs and help with the purchase of a home.
7. Retirement - financial support (bridging) for workers who are close to retirement but not yet eligible for their employer pension.

When the term Just Transition is used to describe an economy-wide or even global transition there are two additional Rs that need to be included in a Just Transition strategy: They are:

8. Racial Equity – The need to ensure that workers from diverse backgrounds (racialized, newcomers, women, LBGTQ+, Indigenous) are included in the transition to a carbon free future.
9. Reconciliation – The right of Indigenous communities to be meaningfully consulted on use of their lands for all or any Just Transition projects including new builds for job sites of all kinds such as mines, timber, solar, wind, industrial and manufacturing. It is worth noting that rehabilitation of Indigenous lands will, in some cases, be large and expensive undertakings.

Any public money allocated to emission reduction retrofits or equipment purchases for companies should only be available to companies with a Just Transition program in place that has been endorsed by a written agreement with their union.

The 7 Rs in Alberta

1) Relocation of workers within the same employer or another employer. Coal workers that were laid off and move to at least 40 kilometres or more to begin a new job are eligible to be reimbursed up to $5,000 for moving-related expenses. Workers are also eligible to receive re-location assistance after lay-off and after moving for a confirmed full-time job or for self-employment opportunities. This is a one-time lump-sum payment. s.

2) Rehabilitation of the worksite (to close, mothball, dismantle and/or restore the surrounding environment. Most of these jobs are short term.

3) Re-employment in local area jobs (usually at the employees' own initiative). In the Alberta plan the Bridge to re-employment relief grant. The bridge to re-employment grant provides workers with up to "75% of their previous weekly earnings when combined with Employment Insurance benefits". This grant can extend for up to 45 weeks or until the worker begins new full-time employment. Through August 30, 2018, there were 68 approved Bridge to Re-employment grants and 24 Coal and Electricity Transition Tuition Vouchers, a total of 92 workers. (Alberta Labour)

4) Re-training for a new Profession (sometimes with the same company, but usually not, and usually with few guarantees of a placement in the new skill. Coal workers are eligible for a tuition voucher, the Coal and Electricity Transition Tuition (CETT) of up to @12,000 if they wish to return to school to retrain within five years of lay-off if they worked at one of the sites identified for over a year and have gotten a formal lay-off notice, or the worksite is closing within five years.

In addition, career consultants and employment service providers were to be made available to work directly with coal workers to share information, develop individualized plans and to provide short-term skills development courses as needed. The government also provided employers and unions with a list of qualified facilitators to assist setting up workforce adjustment committees to create customized transition plans for individual worksites. Workers are eligible for this voucher if they worked for a minimum of a year and lost their job due to the phase out and started studying within 5 years of lay-off.

5) Retirement – early retirement bridging to a certain age or years of services or a combination of both. The bridge to retirement relief grant provides financial support for workers that are close to retirement but not yet eligible for their employer pension. This grant provides "up to 75% of their previous weekly earnings in combination with Employment Insurance until they're eligible for [their] employer pension, or 72 weeks, or when gross employment income is greater than the relief payment, whichever is shorter." To be eligible for this support a worker must be 53 years old, have worked for the same company for at least 10 years, and are not receiving their employer pension.

6) Redundancy Payments (lump sum payments, often up to 1-year base salary). These were not provided in Alberta apart from whatever workers were entitled to from their employer, through their union collective agreement or applicable labour law.

7) Reinvestment in Affected Communities – In 2017 the Alberta government created a $5-million Coal Community Transition Fund (CCTF) (Government of Alberta 2017a). About 20 Alberta municipalities and First Nations impacted by the coal phase-out were eligible to apply to the fund. This fund was exhausted in March 2018 (Government of Alberta) by funding 12 projects in 17 communities, which included strategic planning, feasibility studies, tourism development, and "work to expand economic hubs, including agribusiness, transportation and high-tech industries" (ibid). In addition to the Coal Community Transition Fund, the government created a second fund in 2017 for $30 million over two years through the Community and Regional Economic Support program (CARES) (Government of Alberta 2017e). This fund was available to rural communities across the province, including coal communities. In November 2018, the Alberta government announced $200 million over the next 20 years for the Community Generation Program to support small-scale, locally generated electricity projects (Government of Alberta 2018b). Up to $50 million of the total funding envelope was earmarked to support projects in communities affected by the coal phase-out. In late May 2019, the new UCP provincial government canceled the Community Generation Program.

What Happened to the Workers?

Len Austin was employed at the Highvale Mine, located about 70 kilometres west of Edmonton, (TransAlta) for almost eight years prior to being laid off in October 2019. He was a member of United Steelworkers 1595. The union applied for funds from Western Economic Diversification Canada to set up a transition centre for the workers affected by the closures and subsequent transition. That was the genesis of the Just Transition Centre and Len, due to his experience with the union and the labour movement was chosen as coordinator.

According to Len, the Center is to act as a single point of contact for all workers affected by the OFF-Coal Transition. This includes unionized hourly, non-unionized hourly, staff, supervisors, and management. The Center is primarily, but not exclusively, for the Highvale Mine, Genesee Mine, Genesee Generating Station, Keephills Power Plant, and Sundance Power Plant. His responsibilities are:

To help workers access Provincial and Federal government support programs;
To search out additional sources of funding for transition programs, and;
To collect and organize all the data on worker's affected by the closures from December 2017.

As of May 2020, Len is trying to collect data on the workers displaced by the closures. He was provided with some contact information for the workers who have been laid off at the Highvale Mine and has successfully contact approximate 80% of those workers. He is having difficulty contacting other workers. "I did reach out to TransAlta requesting contact information for the non-unionized workers for both SunHills Mining and TransAlta who have been laid off and additionally the International Brotherhood of Electrical Workers (IBEW) and the United Utilities Workers Association (-UUWA) workers at the power plants who have been laid off, but numerous attempts have failed. I have also contacted Genesee Mine requesting the same information for their workers, but they too have not shown interest in cooperating. It is said Genesee will begin laying off workers at some point in 2020."

Len has a list of 176 workers who received a lay-off notice at the Highvale Mine and has been able to connect directly with 54. Another 122 have been contacted via email and/or telephone but have not responded. "I'll admit, I did not think it would be this difficult to obtain the information I am seeking. It appears this will be a long process. My hope is that I will be able to connect with all the workers who are impacted by the phase-out of coal, and we will then have a very clear and detailed picture. "

Len knows that, out of those he's contacted, 37 have accessed the Bridge to Re-employment program, 20 were still employed at the time of contact and 4 of those in industries unrelated to mining. Two workers have taken the Bridge to Retirement funding and 19 are using the Coal and Electricity Transition Tuition voucher (CETT).

Many of the Alberta programs require on-line access and there is evidence that many older workers did not get digital training in school and only received machine specific training from the employer do not know how to use the Internet. et. Program requirements that workers be laid off and not present in the workplace, removes workplace social and union supports, inadvertently may be contributing to low participation rates

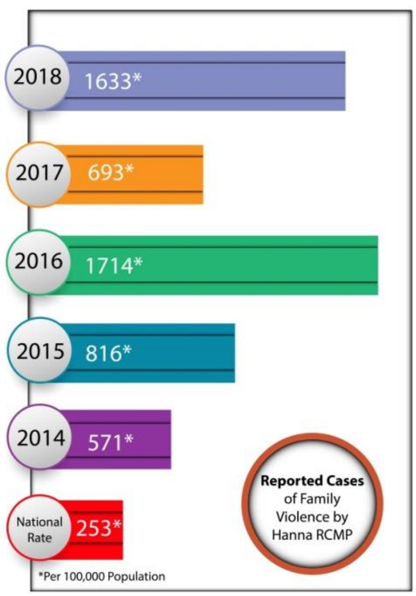
Len is aware of some of the impacts of the closures and transitions on Alberta's rural communities. This include the community of Hanna, site of a significant mine and plant, which were the economic foundation of the town.

Hanna: Impact of the Closure and Transition in One Community

The Coal Community Transition Fund (CCTF) and Community and Regional Economic Support Programs (CARES) funds are helping put several local com munities, many in rural areas, on a path toward economic and environmental sustainability. However, this effect is not shared across all the former coal communities affected by the plant closures. Some municipalities' budgets may see a decline in revenues from property taxes because of mine closures and electricity unit closures or conversions to gas. The report by the International Institute for Sustainable Development published in 2018 notes that "the Town of Hanna has minimal alternative sources of revenue or industrial activity following the retirement of the sheerness

Plant. The closures and layoffs are accelerating issues faced by municipalities that were "largely bystanders during the coal phase-out negotiation and afterwards".

Hanna was particularly hard hit by the closure. The town reported an escalation in domestic violence in 2015, after the closure of the Sheerness Plant. According to Doray Veno and Becky Viste of the Hanna Learning Centre, the November 2015 announcement of the coal plant closure precipitated a crisis in Hanna. Two companies, Westmoreland and ATCO were the largest employers in the community. The Hanna Learning Centre, which was established over 40 years ago with a focus on community adult learning and grew to include literacy, employment services, computer training, general interest courses and business training, had started to track incidences of domestic violence as reported to the RCMP. As illustrated by the following graphic, domestic violence in Hanna is much higher than the national average, and the increase began around the same time as the closure announcement.



While there was a decrease in the numbers in 2017, they escalated again in 2018 as the closures either took place or were imminent. All conversations about closure/transition focused on economic and not on social impacts, so the companies were not aware of the increase in domestic violence.

The Learning Centre applied for and received federal money to strike a task force to bring the community together, pool knowledge about domestic violence and ensure people had information about local resources, such as where to go and what to do. The task force, Step Forward, was a very active group. One of the first actions was to take a more in-depth look at the numbers and analyze where the data came from. They found that, as illustrated above, Hanna had a very high number of cases, as reported to the RCMP. The average in Hanna ranges from 2 to almost 3 times as high as the national average. After announcement in 2015, in 2016 Hanna experienced massive increase in domestic violence – 1,714 cases in 100,000. As Hanna had been a stable community and the only significant change that could have provoked the increase in domestic violence was the closure announcement and subsequent lay-offs, accompanied by plans to transition to gas-fired electrical plants that typically employ fewer workers.

In addition to the increase in domestic violence, Doray and Becky are experiencing other ripple effects in the community from the closures. Housing prices deflated after the initial closure announcements as there were few buyers. As workers relocated the town lost professionals (teachers, nurses, etc.) who were spouses of those workers who could find work elsewhere re-located. Many others tried to move but were unable to sell, leaving a surplus of housing stock. This, in turn, has deflated the local economy, as taxpayers have left the area, stripping the municipality of income.

According to Becky and Dore, the community is facing a number of issues, including:

1. Closure of Victim Services – a provincial network with local branches. Funding cut under current provincial government that is looking for "efficiencies". They were first contact and now resources for people looking to leave situations of domestic violence. Not all Victim Services have been suspended.
2. RCMP now are first contact and are working with Hanna Learning Centre to help women navigate through system(s); help them figure out what they need.
3. The $500 they received to help with transportation to closest shelter is useful, but there aren't any shelter beds.
4. Temporary layoffs of March 2020 by Westmoreland could become permanent.
5. The companies have accelerated the rate of transition much faster than mandated by the Notley government, which is threatening more jobs.
6. The carbon tax impacts the economic feasibility of continuing to use coal, leading to additional job loss.
7. The elimination of family supports and services in addition to a new funding model for children's services has left Hanna without the needed social supports to get through this transition. They are experiencing an increased need for mental health and addiction services and have no access to these services as there have been staff shortages for years.
    a. Elimination of family support/services; new funding model for children's services.

b. Increased need for mental health and addiction services and no access – staff shortages for last 4 years.

The people at the Hanna Learning Centre anticipate continued high levels of domestic violence as incomes are slashed, employment prospects dim and social supports are crumbling. The withdrawal of funding for the closest shelter means that women experiencing domestic violence have very few means of escape.

Doray and Becky met with federal Just Transition Task force and asked them to focus on social side of the impact of the closures, not only on economic and environmental issues. Among the 10 recommendations from the task force for affected communities are:

- An economic development concierge be established to work with impacted communities to assess in evaluating and promoting business attraction to mitigate job loss and the erosion of the tax base, and
- The establishment of Worker Transition Teams to ensure access to education and retraining and provide worker transition services, such as counselling.

Conclusion

In 2019 Albertans brought a Conservative government back, electing the United Conservative Party (UCP) led by Premier Jason Kenny. In its first six months in office, the UCP has undone much of the NDP's climate plan, but the coal phase-out is continuing and most of Alberta's coal power will be phased out by 2023, six years ahead of the 2029 federal deadline. Some of the continuation of the closures and transition to gas-fired plants is due to the Harper regulations, which remain in effect.

Alberta municipalities and First Nations affected by the coal phase-out will need further support from the provincial and federal governments as the transition to gas-fired and renewable energy continues. For decades these communities have relied heavily on coal power plants and their associated mines as substantial sources of property tax revenue and family-sustaining jobs. These communities are now experiencing depressed property values, scarcity of employment and diminishing tax revenues, in addition to the increasing levels of domestic violence and withdrawal of funding for social supports.

Perhaps the biggest mistake of the Notley government was to not tie the funding of the coal-phase out to Just Transition programs for workers and municipalities. This paper has discussed in detail this mistake. However, our focus is on the very good programs that were but in place, but at additional cost to Alberta taxpayers, and more recently Canadian taxpayers through the Western Canada Diversification Fund.

A second failure that is almost certainly going to cost taxpayers in the future was the regulatory freedom for coal generators to convert to gas plants without substantial commitments to renewables. These gas emissions in combination with the very, high emissions from Alberta's oil, gas and bitumen sectors d will make it impossible for Canada to meet its Paris targets. This will almost certainly result in a taxpayer funded bail-out of stranded assets by the Alberta and Canadian governments. (Hussey, 2019)

The UCP cancelled the province's Renewable Energy Program, which was yielding low-cost new renewable generation through competitive auctions at a time when the world is trying to rapidly transition to a lower carbon economy. Alberta is now on a trajectory to have about 75% gas-fired electricity by 2030. This means Alberta's electricity sector may still produce 25 million tonnes of annual carbon pollution by 2030.[1] Alberta's plan to phase-out of coal and increase use of gas-fired generation has not met the central objective of the coal phase-out: the creation of deep GHG emissions cuts. In acknowledging the reality that all fossil fuels must be phased-out by mid-century, it becomes clear that investments in natural gas are misguided.

Alberta's contribution to Canada's meeting the Paris Agreement reduction targets may be further impeded by the policies of the UCP government. Clearly alternative policies are needed to help Albertans, and Alberta's coal communities, transition to renewable energy production. This would demand putting in place a robust Just Transition program to support workers displaced by the closures of coal mines and coal-fired electricity plants.

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[1] The US Energy Information Administration states that gas facilities produce about 40% less carbon pollution as (subbituminous) coal power (USEIA 2019). We used the USEIA's numbers to estimate the amount of annual pollution that Alberta's gas plants will produce in 2030.

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