

Rachel Carson Center Perspectives

How to cite:

Piper, Liza. "Coal in the Age of the Oil Sands." In: "Environmental Knowledge, Environmental Politics," edited by Jonathan Clapperton and Liza Piper, *RCC Perspectives: Transformations in Environment and Society* 2016, no. 4, 69–76. <https://doi.org/10.5282/rcc/7702>.

RCC Perspectives: Transformations in Environment and Society is an open-access publication. It is available online at www.environmentandsociety.org/perspectives. Articles may be downloaded, copied, and redistributed free of charge and the text may be reprinted, provided that the author and source are attributed. Please include this cover sheet when redistributing the article.

To learn more about the Rachel Carson Center for Environment and Society, please visit www.rachelcarsoncenter.org.

Rachel Carson Center for Environment and Society
Leopoldstrasse 11a, 80802 Munich, GERMANY

ISSN (print) 2190-5088
ISSN (online) 2190-8087

© Copyright of the text is held by the Rachel Carson Center.
Image copyright is retained by the individual artists; their permission may be required in case of reproduction.

SPONSORED BY THE



Federal Ministry
of Education
and Research

Deutsches Museum 



Liza Piper

Coal in the Age of the Oil Sands

It is common knowledge that emissions from coal are essential to the warming stew of greenhouse gases transforming the climate of our Earth. This point was forcefully made by Andrew Weaver, noted climate modeller and the Green Party's first ever Member of the Legislative Assembly of British Columbia, Canada. Weaver published a 2012 paper with Neil Swart in *Nature Climate Change* in which they state, "Our overarching conclusion is that as a society, we will live or die by our future consumption of coal."¹ This conclusion, highlighting the significance of coal rather than, say, oil or bitumen, was received with some smug satisfaction in the province of Alberta. Alberta takes it on the nose pretty regularly because of the centrality of the oil sands to its economic health and its promotion of the same across North America and the globe. But if the oil (or tar) sands are the poster child—good or bad depending on your perspective—for Alberta's fossil fuelled economy, they are also just that: one highly visible representative of a range of sources of greenhouse gas emissions (including conventional oil, natural gas, coal, and cement) produced in the province and marketed around the world. Coal, specifically, has a big place in Alberta's political, economic, and environmental history, second only to the place of oil itself. Hereward Longley's piece in this collection examines some of the history of the oil sands in Alberta and collectively our contributions offer two different perspectives on the energy and environmental history of that province—a global player in the market for fossil fuels.

Prior to the Second World War, coal was essential to Alberta's economy, shaping its industrial history, labour relations, and landscape. Workers connected to the coal industry, whether as miners or railway workers in the days when the railroads ran on coal, were the most important members of Alberta's industrial workforce, and among its most radical representatives. When, in 1947, Alberta was transformed by the Leduc well into an internationally significant oil producer, coal took a backseat. The main underground coal mines, operating in the Crowsnest Pass area (south of Banff in the Rockies) and across a swath of land heading west from Edmonton to the boundary of Jasper National Park (referred to as the Coal Branch), either closed or significantly

1 Andrew Weaver, "Our New Study: Global Warming from Coal Worse than Oil Sands," *The Huffington Post*, 21 February 2012, http://www.huffingtonpost.ca/andrew-weaver/eu-law-oil-canada_b_1288264.html.

curtailed operations. Up until this point, total coal production had grown steadily, except during the years of the Great Depression, since the first mines opened in the 1870s. The turnaround was short and swift: between 1949 and 1961 total coal production dropped from 8.6 million short tons (7.8 million metric tonnes) to a nadir of 2.0 million short tons (1.8 million metric tonnes). If we were to stop there (as many do; very little has been written on the history of Alberta's coal industry after the 1940s), the decline of coal in the face of superior fossil fuels—oil and gas—would seem clear. But in the 1960s, Alberta's coal production began to rise once again, at first slowly and then swiftly after 1971—the year when production exceeded the previous peak reached in 1946.

The provincial and federal governments had both been deeply concerned about the decline in the coal industry: they investigated the problem, increased assistance to the industry, and changed regulations to ease the pain of shrunken markets. In Alberta, for instance, a 1954 Order-in-Council signed by Premier Ernest Manning decreed that rent payments on coal lands held by companies that had suspended operations would be reduced by 75 percent for the next 10 years. This enabled companies to hold onto their lands and wait out what was anticipated to be a short-term decline. Nationally, domestic transportation of coal was subsidized to help promote domestic over international production. A national 1960 Royal Commission on Coal (coincident with the Royal Commission on Energy, but the separate attention given to coal signalled its importance) sought to encourage and open up new markets for Canadian coal.

These efforts paid off. The most important new market for Alberta coal in the postwar period was the expanding Japanese iron and steel industry, which added considerable demand to the pre-existing domestic heating market. As well, by 1970, instability in oil prices led many of the larger oil and gas companies to look to coal as an opportunity to diversify their operations. Coal for export came mostly from the mountains and foothills, while heating coal came from the prairies and parkland regions. Lowered transport costs to West Coast (British Columbia) ocean freight terminals and lowered labour costs resulting from greater mechanization within the industry—most significantly a turn to surface and strip mining—further encouraged the expansion of production. Indeed, much of the change that took place in the doldrums of the 1950s and early 1960s involved massive consolidation and mechanization within the industry, change that was only possible because of the rise of gasoline- and diesel-powered machinery. Where in 1943 there

had been 168 underground mines and 36 stripping pits, in 1971 operators produced more coal but now there were only 27 mines in total, of which 5 were underground and the other 22 were surface strip mines. The concentration of operations into fewer and fewer mines, with most of the activity taking place at the Earth's surface, while steadily increasing overall production, continued into the twenty-first century: by 2008, 13 mines (all of which had surface stripping operations and one also had an underground mine), produced 41.7 million short tons (37.8 million metric tonnes) of coal, almost five times the production at mid-century. Thus the transformation of Alberta's coal mining industry in the postwar period also transformed Alberta's landscape.

At the same time that the industry was reaching new production heights in the early 1970s, a new environmental consciousness had taken hold in Alberta. This new consciousness was part of the emerging environmentalist sensibility of this era. It is important to note that in developing this environmental consciousness, Alberta was part of this larger Western trend, not a holdout from it—yet the fact that this is still a somewhat novel point to make further highlights the extent to which Alberta has become so closely identified with natural resource exploitation and the oil industry, rather than other interests. In addition to longstanding fish and game clubs and mountain recreation clubs, there was a new grassroots dimension to this environmentalism, for example in the creation of STOP: Save Tomorrow Oppose Pollution in Edmonton in 1970, to generate public awareness about the dangers of environmental pollution. The following year, the Calgary Eco-Centre Society was formed to disseminate ecologically-informed materials. Also in 1970, the Social Credit government of Harry Strom passed the *Environment Conservation Act*, which established the Environment Conservation Authority (ECA; from 1977 it became the Environment Council of Alberta)—an entity with wide-ranging responsibility to review policies and programs with an eye to conservation and environmental protection.

Soon after its formation, the ECA was tasked with completing a comprehensive review of the environmental impacts of resource development in Alberta.² Although ultimately expected to review legislation and practices affected by coal, oil, gas, and forestry development and to give particular attention to watershed integrity, it was “the environmental effects of strip mining and its attendant land reclamation problems” that were given

2 Strom's Social Credit government was defeated in a provincial election in August 1971 by the Progressive Conservative (PC) party under the leadership of Peter Lougheed. The ECA and its original mandate were Social Credit creations, but all of its subsequent activities fell under the auspices of the PC government.

priority, with public hearings beginning in December 1971.³ Moreover, the Authority emphasized that it was pushed to pursue these hearings, “by briefs and petitions from many citizens and many parts of the Province.”⁴ The massive expansion of strip mining for coal, and its impacts, had not gone unnoticed by the citizens of Alberta.

In many respects, the ECA was a late-twentieth-century, provincial variant of the Canadian Commission of Conservation, established by Wilfrid Laurier in 1909: a Progressive-era response to issues of resource exploitation and conservation, in a country where the export of staple goods (whether fish, furs, timber, minerals, or wheat), prevailed. A key difference, however, was the number of civil society organizations that participated in the ECA’s public hearings and the environmentalist perspective they brought to the discussion. In addition to 12 fish and game clubs, 6 farm and labour organizations, and a handful of other entities (including the Archaeological Society of Alberta), there were 16 organizations representing wilderness, parks, natural history, pollution control, and mountain recreation interests at the public hearings.

The new measures taken by the provincial government to protect Alberta’s environment created challenges for the thriving coal industry. In their submission to the public hearings, the Coal Association of Canada (CAC)—an industry lobbying organization dating back to 1907 and still active today—opened with the following claim: “We submit that the first phase of the fight against pollution has been won. The ecologists have rendered a valuable service to society by alerting it to the dangers which were ahead if corrective action were not taken. However, in doing so, they have frequently exaggerated the negative and eliminated reference to many highly successful reclamation projects and costly pollution control mechanisms now in existence. As is often the case, such action has resulted in the pendulum swinging perhaps too far and we submit that it is the opportune time to bring it back closer to its proper place. We must now balance the understandable emotional desire for a completely undisturbed environment against the practical needs of an energy-hungry society which demands a low unemployment rate and a high standard of living.”⁵ Much can be made of this statement: from the praise of ecologists, promptly revoked, to the assertion that the

3 Environment Conservation Authority, *The Impact on the Environment of Surface Mining in Alberta: Report and Recommendations* (December 1971, January 1972), 12.

4 *Ibid.*

5 Coal Association of Canada, “Submission to Public Hearings Conducted by the Environment Conservation Authority,” 21 December 1971, File M-8393-1361, Coal Association of Canada Fonds, Glenbow Archives.

fight against pollution had been won, and the dichotomy the CAC advanced contrasting the “emotional desire” for environmental protection versus the “practical needs” for economic health—a variant on the *idée fixe* of late capitalism: jobs vs. nature (or in more honest moments, profit vs. nature).

The hearings highlighted for the ECA the need for improved environmental management of resources and for coordinated development with other economic activities and land uses (farming and recreation in particular). They also brought to the fore the key distinction between mining in the “uplands”—which could have significant negative cumulative effects on water resources downstream—and in the “plains.”⁶ The ECA emphasized that when it came to strip mining, “activities which result in permanent loss of productivity of the land are intrinsically undesirable. Reduction or elimination of undesirable environmental impact and restoration of acceptable land use after mining has ceased, should be recognized as a public benefit now and for the future.” Nevertheless, industry lobbying helped ensure that the ECA’s extensive recommendations on the issue of strip mining were far from radical. The focus was on land reclamation, more so than on the curtailment or restriction of mining activities. And land reclamation was a slippery concept. For even if it was recognized in advance of a mining development that the reclaimed land would be “less valuable,” development could still proceed if other economic criteria favoured the mine.

Large-scale strip mining for coal in Alberta had nevertheless provoked environmentalist opposition and the main response was new regulatory action on the part of the provincial government. In the late 1970s and 1980s, the CAC would focus on the regulatory burden imposed by the state, emphasizing the “excessive” number of approvals required to bring any Alberta coal mine into production.⁷ But mine development continued and the regulatory framework employed in strip mining for coal would be applied as well to the oil sands developments in the northern parts of the province.

The CAC chose to emphasize in their brief to the public hearings that “as late as even two or three years ago there was no public, government or industry recognition about such matters, nor about ecology in general.”⁸ In implying that ecology was a pass-

6 ECA, *Impact*, 3.

7 Coal Association of Canada, “A Proposal for Regulatory Reform with Respect to the Alberta Coal Industry,” Appendix III, 15 June 1984. File M-8393-1369, Coal Association of Canada Fonds, Glenbow Archives.

8 CAC, “Submission to Public Hearings,” 4.

ing fancy, the CAC were not entirely off-base. By the early 1980s, both STOP and the Calgary Eco-Centre Society had dissolved (although both had continuing influence or later iterations). Moreover, even if the coincidence in time of the creation of the ECA and the election of a new Progressive Conservative (PC) government signalled that social values had changed in Alberta, as they had in countless other jurisdictions across the West, that new PC government eventually grew old, staying in power for an unprecedented 44 years. Coal production grew steadily and significantly in that period.

The creation of the ECA appears on the surface to have been a progressive political response to changed knowledge about the environment and its significance. In the late 1960s and early 1970s, Albertans from many different backgrounds were aware of and concerned about the ecological consequences of strip mining for coal. They were concerned about the health of watersheds, about toxic pollution and its effects. Notwithstanding the progressive appearance of the ECA and its public hearings in particular, the outcomes of this process—and especially the focus on land reclamation as the primary regulatory tool—highlighted the enduring importance of economic development over ecological integrity or protection from pollution: the land could be broken, so long as it could also be put back, although whether it could ultimately be “reclaimed” is a question that remains to be answered. Little had changed from the earlier Commission of Conservation, an entity that strove to ensure the conservation of resources so that they could be exploited in the long term rather than wasted in the short term. Under this kind of regulatory model, harmful consequences from coal production and consumption persisted, culminating in 670 million litres of coal slurry spilling from the Obed strip mine near Hinton on 31 October 2013, flowing into the Athabasca River and then northward from there. This, the largest spill ever from a coal mine in Canada, dramatically signalled that the environmental effects of coal were by no means limited to the narrow concerns about land reclamation that had served as the focus of the ECA’s hearings in the early 1970s.

Ultimately, though, it is a changed constellation of environmental knowledge and politics that looks likely to kill the coal industry in Alberta. The election of a New Democratic Party (NDP) government on 5 May 2015 ended the 44-year stranglehold of the Progressive Conservative Party in the province. The NDP has committed to phasing out coal-fired electricity as the centrepiece of its climate change mitigation strategy. This commitment comes at a time when the bottom has dropped out of the interna-

tional coal market. The Grande Cache coal mines, the last with an underground mine, announced the closure first of its open pit operations in January 2015, and then of its underground operations as of 24 December 2015. If knowledge of the impact of coal in climate change has changed the political landscape, and if the provincial government does not come to the aid of the industry as it did in the mid-twentieth century, these closures will be the beginning of the end.

Suggested Further Reading

Armstrong, Christopher and H. V. Nelles. *Wilderness and Waterpower: How Banff National Park Became a Hydroelectric Storage Reservoir*. Calgary: University of Calgary Press, 2013.

Breen, David. *Alberta's Petroleum Industry and the Conservation Board*. Edmonton: University of Alberta Press, 1993.

Camp, Michael. "Carter's Energy Insecurity: The Political Economy of Coal in the 1970s." *Journal of Policy History* 26, no. 4 (2014): 459–78.

Ferguson, Cody. "You Are Now Entering a 'National Sacrifice Area': The Energy Boom of the 1970s and the Radicalization of the Northern Plains." *Journal of the West* 53, no. 1 (2014): 69–78.

Richards, John and Larry Pratt. *Prairie Capitalism: Power and Influence in the New West*. Toronto: McClelland & Stewart, 1979.

