

F O U R T E E N

Cowboys Against Coal



ALTHOUGH OTHER REGIONS ARE more famously associated with coal, the largest coal reserves in the United States are actually located in the Northern Plains. If coal were gold, then the Gillette Field in Wyoming's Powder River Basin, sporting seams as thick as a hundred feet, would be Fort Knox. All ten of the largest coal mines in the United States are clustered here, just a few miles apart from each other. Two of these mines, the Black Thunder Mine and the North Antelope Rochelle Mine, together produce more coal than the entire state of West Virginia. Though not as fully exploited, Montana's coal reserves are even larger than Wyoming's, and according to some estimates they nearly equal the reserves of China.

Climate modelers knew that what happened in the Northern Plains had immense consequence for the future of life on Earth. If Wyoming and Montana, with more coal than all the states east of the Mississippi combined, were fully mined, the impact on atmospheric levels of carbon dioxide would be catastrophic.

The coal of the Northern Plains first placed the region in the crosshairs of national energy planners in 1971, when a report

entitled the *North Central Power Study* sent shock waves throughout communities in the region. The study forecast a massive expansion in strip mining and electricity generation, including twenty-one new power plants in Montana alone. Facing the prospect of an industrial tsunami, a coalition of Montana ranchers and environmentalists organized the Northern Plains Resource Council (NPRC) in 1972. NPRC provided research and organizing resources for numerous county-level groups, each with its own autonomous operations.

Among the founding members of NPRC were ranchers who had survived everything the prairie had in its bag of delights—drought, dust storms, cattle-freezing blizzards—and weren't particularly intimidated by coal company flacks and lawyers. In his account of the coal fight, *The Rape of the Great Plains*, Montana historian K. Ross Toole described Bull Mountain rancher Boyd Charter:

Boyd Charter (age sixty-six), who runs six hundred cows on fifteen sections of rangeland in the Bull Mountain area north of Billings, has a face that looks like the land he lives on. It is deeply lined and creased, the nose is large and a little bent, two lower teeth are missing, and the startlingly direct eyes are slightly hooded. Charter is clearly a man to be approached with caution, though ... he is a gentle man and a gentleman. One of the vice-presidents of Consolidation Coal Company did not approach him with caution. Charter recalls, "I told that son-of-a-bitch with a briefcase that I knew he represented one of the biggest coal companies and that he was backed by one of the richest industries in the world, but no matter how much money they came up with, they would always be \$4.60 short of the price of my ranch."

The NPRC organizing model spread into the neighboring states of North Dakota and Wyoming, where the Dakota Resource Council and the Powder River Basin Resource Council formed on parallel lines. The three groups formed the Western Organization of Resource Councils, which eventually added

four more statewide groups—Oregon Rural Action, Idaho Rural Council, Western Colorado Congress, and Dakota Rural Action—encompassing forty-five local groups and ten thousand members. Over time, this far-flung coalition developed into one of the most effective grassroots environmental networks in the United States.

The first big power plant fight in the Northern Plains involved Montana Power Company's Colstrip complex in southeastern Montana. The ranchers and their allies, including the Northern Cheyenne tribe, lost the battle, and by 1986 Colstrip had expanded to four generating units. But the Colstrip fight spawned a wider movement in Montana that secured the passage of some of the strongest state-level environmental legislation in the country. Above all, Montanans were determined to prevent the coal industry from dominating the state the way that the hard-rock mining industry, especially the Anaconda Copper Mining Company, had done for much of the twentieth century.

Despite Montana's vast reserves, the state's coal mines were producing less than a tenth the tonnage of neighboring Wyoming at the time the Bush administration began its push for a new wave of coal plants. One reason had to do with transportation infrastructure. An immense rail complex had been constructed to bring coal from Wyoming's Powder River Basin to power plants as distant as Florida, but fewer rail lines extended into Montana's coalfields. Generally, the development of infrastructure—not just rail lines but also high-voltage transmission lines, water pipelines, and pipelines for transporting synthetic gas or liquids—is an incremental process. Each mine or plant built in a coal region makes the next facility easier to site, and so forth. By following the path of least resistance and building mine after mine close to existing

rail lines in Wyoming, the mining industry had failed to create the necessary transportation foothold in Montana. That gave anti-coal activists even more of an incentive for keeping any new development out of the state.

During 2007 and 2008, the proposal that figured most prominently in Montana politics was the Highwood power plant, proposed by the Southern Montana Generating & Transmission Cooperative (SMGTC), which was slated to sell part of its output to several Montana cities. Grassroots opposition to the Highwood proposal arose quickly, and the intensity of the response caused cities of Helena and Missoula to back away from the project. The erosion of support did not stop Highwood, but it was a first step in undermining it. Since the project had already secured most of its necessary environmental permits, the best hope for opponents was to focus on the project's financing. The Rural Utilities Service (RUS), historically a strong supporter of coal plants, backed loans for Highwood.

Along with several allies, the Montana Environmental Information Center (MEIC) sued to stop the RUS from lending money to Highwood on the basis that the federal loan program had not been subjected to a formal environmental review. Surprisingly, the RUS caved quickly to the pressure, announcing in February 2008 that it was placing loans to *all* coal plants on hold. Officials cited the "inherent risks associated with compounded delays" and concerns about financial feasibility in light of increasing cost estimates.

Meanwhile, opponents appealed Highwood's air permit to the Montana Board of Environmental Review (BER), raising health concerns and calling for further study of particulate emissions. In a 6–1 ruling in April 2008, the BER ordered more research on particulates smaller than 2.5 microns in diameter,

known as PM_{2.5}. The ruling made the board the first regulatory body in the nation to order separate measurements and emissions controls for PM_{2.5}.

SMGTC continued to pursue the project, but support was clearly eroding. The final decision would not come for another full year—January 2009—when the SMGTC announced that it was canceling the plant and instead building wind power with natural gas backup.

Another project, a coal-to-liquids plant proposed for siting at Malmstrom Air Force Base near Great Falls, posed a different set of concerns. The project had the enthusiastic support of Montana governor Brian Schweitzer, an up-and-coming star within the Democratic Party and a synfuels booster. Since Malmstrom was a military project, opponents feared that it could potentially be exempted from environmental regulations.

As is typical in such military-industry projects, the advocates for the Malmstrom project seemed one minute to be working at Pentagon desks and the next minute at private contractors that would benefit if the project were built. One such revolving-door operative was Ron Sega, the Air Force undersecretary who flew the first Air Force jet powered by synfuels in September 2006. In December 2007 disclosure forms revealed that Sega had left the Air Force and joined the board of synfuels technology developer Rentech.

Much was at stake. The U.S. Air Force uses more than half of the fuel consumed by the U.S. government. In 2007 the Air Force spent \$5.8 billion to buy 2.6 billion gallons of fuel. For every \$10 increase in the price of a barrel of oil, the amount the Air Force spends on fuel rises by \$600 million. Part of the concept being promoted by Ron Sega and others was for the Air Force to certify its fleet of nearly six thousand aircraft to use a 50:50

blend of synthetic fuel and petroleum-based jet fuel by 2011. If such plans became a reality, companies like Rentech would hit the jackpot. To build support, Rentech hired the lobbying firm of Brownstein Hyatt Farber Shreck to work the Hill.

The scale of the proposed Malmstrom plant was immense. Each day 20,000 tons of coal and 10 million gallons of water would enter the plant, and 20,000–30,000 barrels of fuel, 1200–2400 megawatt-hours of electricity, and 15,000 tons of carbon dioxide would exit it. Developers promised that the carbon dioxide would be pumped into deep underground formations, but details were not forthcoming.

On January 30, 2008, Congressman Henry Waxman, chairman of the House Committee on Oversight and Government Reform, and Tom Davis, ranking minority member of the committee, wrote to Defense Secretary Robert Gates, requesting information on how the Department of Defense's plans for coal-based synfuels would comply with new greenhouse gas limits imposed on federal agencies by the Energy Independence and Security Act of 2007 (EISA). According to Section 526 of the law:

No Federal agency shall enter into a contract for procurement of an alternative or synthetic fuel, including a fuel produced from nonconventional petroleum sources, for any mobility-related use, other than for research or testing, unless the contract specifies that the lifecycle greenhouse gas emissions associated with the production and combustion of the fuel supplied under the contract must, on an ongoing basis, be less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources.

Despite the apparent restrictions contained in EISA, opponents of the Malmstrom plant found little reassurance. Considering the powerful support enjoyed by the project, Section 526 might prove to be little more than a speed bump. Fortunately, a combination of unexpected circumstances arose

that derailed the Malmstrom proposal. As a worldwide recession derailed economies around the world, oil prices plummeted and coal-to-synfuel projects became increasingly shaky. The election of President Obama also promised to at least somewhat curb the enthusiasm for coal that had characterized the Bush presidency. On January 29, 2009, with little fanfare, Air Force officials announced that they would no longer pursue development of the Malmstrom project. The explanation was quirky. Had the plant been built, its tall structures would have created helicopter-flight safety issues. In addition, operation of the plant would potentially have “created conflicts with the missile wing’s mission, including reducing security near the nuclear weapons storage area and an ‘explosive safety arc’ surrounding it, and interfering with missile transportation operations on internal Malmstrom roads.”

In the wake of the stroke of fortune, opponents such as Anne Hedges of the Montana Environmental Information Center breathed a sigh of relief. The fact that the project had gotten as far as it did was a reminder of what a tempting opportunity Montana continued to present to energy developers. The fact that developers had tripped over their own logistics was a reminder that sometimes the fates do smile on Mother Earth.

East of Montana, energy companies were targeting the Dakotas for new coal development. North Dakota’s coal, though abundant, is a low-grade variety known as lignite that is too poor in quality to ship long distances. As a result, mining in North Dakota had clustered in a strip alongside the Missouri River, where cooling water was available for a half-dozen power plants, built from the 1950s to the early 1980s. Every year, the mines associated with those plants consumed thousands of acres of valuable cropland, and power plants emitted plumes

containing sulfur dioxide, mercury, and other toxins that drifted eastward across Minnesota, Wisconsin, and the Great Lakes. The study *Dirty Kilowatts* had listed five of the central North Dakota coal plants among the fifty worst emitters of carbon dioxide and mercury in the country.

Mining and energy companies had long wanted to expand the area of concentrated coal development farther into southwestern North Dakota, but each such proposal sparked resistance. A chokepoint for industry development was the Theodore Roosevelt National Memorial Park, whose Class I air quality status prevented plants from being sited nearby. North Dakota's pro-coal state government sought to replace federal air modeling methods with new models that would allow more plants to be built in areas with sensitive air quality. In response, the Dakota Resource Council sued twice to block the weaker standards. DRC lost both cases, and in the final months of the Bush administration the EPA announced plans to approve North Dakota's weaker air models for use across the country. But less than a month before Bush left office, the EPA admitted that it had run out of time to weaken the air standards. Terrence Kardong, a Benedictine monk who had worked on coal issues for three decades, declared "a win for the mouse" and provided a pithy summary of the long fight: "The Bush gang finally gave up and we did not."

Of all the power plant fights in the region, the most intense was the struggle over the Big Stone II plant proposed for South Dakota near the Minnesota border. Initially, the plant was sponsored by seven utilities, including lead developer Otter Tail Power, Central Minnesota Municipal Power Agency, Great River Energy, Heartland Consumers Power District, Missouri River Energy Services, Montana-Dakota Utilities Co., and Southern

Minnesota Municipal Power Agency. Facing off against the utilities was an even larger coalition of citizen groups, including Beyond Big Stone II, Dakota Resource Council, South Dakota Clean Water Action, Sierra Club Northstar Chapter, Minnesota Center for Environmental Advocacy, Union of Concerned Scientists, Izaak Walton League, Land Stewardship Project, Wind on the Wires, Fresh Energy, and Clean Up Our River Environment (CURE).

Opponents of Big Stone II pursued every available route to voice their protests. CURE built a miniature coal plant, propped it between two canoes, and entered the float (along with a ranting coal baron) in the annual River Blast Flotilla on the Minnesota River. High school students descended on the state capitol in St. Paul, where they lobbied legislators and grilled Governor Tim Pawlenty's political deputies. Eight Minnesota legislators wrote to Microsoft's Bill Gates, whose investment company owned a 9 percent stake in Big Stone II sponsor Otter Tail, inviting Gates for a visit to review renewable investment opportunities in Minnesota that would "align the values of your foundation with your investment strategy." James Hansen wrote personally to the governor, expressing opposition to the plant. Videos of children protesting the mercury emissions from the plant circulated on YouTube.

David Schlissel, an analyst at Synapse Energy Associates in Boston, developed one of the most persuasive arguments against Big Stone II. Schlissel noted that the utilities proposing the plant had failed to account for two types of risk. First, by failing to account for the likelihood that some kind of carbon-pricing legislation was likely to be enacted in the coming years, the sponsors had underestimated the cost of coal. In comparison, the cost of power from wind generators was highly predictable,

since after the initial capital costs and ongoing maintenance costs, wind generators did not require any sort of fuel supply. Second, the sponsors had overestimated the reliability of the Big Stone II plant because they had failed to recognize a growing number of transportation and other bottlenecks that had already caused periodic interference with supplies of coal coming from the Powder River Basin. For example, in 2005 two train derailments produced a domino effect of coal shortages at power plants located far from Wyoming, causing \$2 billion in losses.

Schlissel's twin arguments went to the heart of the supposition that burning coal is the cheapest, most reliable way of generating power. Over time, opponents of coal plants elsewhere would further develop those arguments. Working from her home office in Boulder, Colorado, Leslie Glustrom, a member of the No New Coal Plants list, delved deeply into studying the topic and came to the conclusion that utility planners and lobbyists had been painting far too rosy a picture of future coal availability. Contrary to the common assumption that the United States has a 250-year supply of coal, Glustrom found analyses by the U.S. Geological Survey (USGS) pegging the supply at actual operating mines at approximately nineteen years. That number, of course, could be increased if new mines were to open. But doing so at the rate needed to supply currently operating plants would not be easy. East of the Mississippi, most states had been experiencing a long-term decline in production levels as the easiest coal seams were mined out. As regulators increased their scrutiny of mountaintop removal mining, eastern production would continue to fall.

West of the Mississippi, reserves were more abundant, but obstacles existed to expanding current mines. For example,

USGS review of the Gillette Coal Field in the Powder River Basin, the source of 40 percent of the nation's coal, reduced the estimated reserve at current prices to a mere 10 billion tons, down from an estimate of 23 billion tons in 2002. Key to the reduction in coal reserves was the recognition that the vast majority of coal in the Powder River Basin either was buried too deep to be economically recovered or was unavailable for other reasons, such as conflicts with roads, towns, or environmentally sensitive areas.

As opposition to Big Stone II multiplied, two of the cosponsors of the project, Central Minnesota Municipal Power Agency and Great River Energy, got cold feet, exiting the project in the fall of 2007. That left the plant undersubscribed by about 27 percent and meant that it would need to be downgraded in size. Meanwhile, projected construction costs were continuing to increase.

On May 9, 2008, two administrative law judges recommended to the Minnesota Public Utilities Commission that the transmission line permit for the plant through western Minnesota be denied, based on their conclusion that conservation and load management measures could more economically satisfy the demand for electricity. The decision came as a further blow to the project. In October another blow arrived when the Minnesota Public Utilities Commission received a report from Boston Pacific Co. of Washington, D.C., saying that the utilities had underestimated construction costs and overestimated the costs of alternative energy sources.

On January 23, 2009, three days after the Obama administration took office, the EPA filed objections to South Dakota's air permit for Big Stone II. In April, South Dakota went ahead and issued the air permit, but the project continued to face

numerous other permitting hurdles and legal challenges. Meanwhile, support for the plant eroded further in July 2009, when the municipal utility for Elk River, Minnesota, backed out of the project. In September came bigger news: Otter Tail Power, the main sponsor of the project, also backed out, opting to focus instead on developing cleaner alternatives. Already, Otter Tail had committed to developing 180 megawatts of wind power, making it, relative to its size, one of the most wind-reliant utilities in the country. With only four participating utilities left, the odds that the plant would be built were becoming increasingly slim.

