

## *151 Time Bombs*



**IN THE SPRING OF 2007**, a bureaucrat at the U.S. Department of Energy named Erik Shuster put the finishing touches on a routine document, then posted it on the Internet. The document listed 151 coal plants in various stages of completion, from initial proposal to operation.

Shuster had no idea that this number—151—would turn out to be the flash point for a grassroots movement to stop the plants. This latest tally of coal plant projects in the works was simply a routine update to a tracking report that his department had been quietly posting for over five years. I stumbled on Shuster's document while surfing the Web, looking for more information on the wave of proposed new coal-fired power plants. It was one of many stray pieces of information I came across about coal, saving it in my Web browser as I Googled here and there.

In addition to such general pieces of information, I was interested in finding out what the big environmental groups were doing in support of James Hansen's call for a moratorium on new coal plants. I jumped from Web site to Web site—National

Wildlife Federation, Natural Resources Defense Council, Environmental Defense Fund—but except for the Sierra Club, not one of these large national groups was rallying its members in support of Dr. Hansen’s call for a nationwide freeze on new coal plants.

This lack of action perplexed me. Here was America’s top climate scientist—backed up by nine colleagues—announcing, in effect, a five-alarm fire and laying out in detail where to direct the hoses. Yet it struck me that the environmental establishment as a whole was responding like a fire crew on a coffee break.

A case in point was the Environmental Defense Fund (EDF). With half a million members, hundreds of staff, offices in eleven cities, and revenues of \$89 million a year EDF is one of the powerhouses of the environmental movement. Yet EDF’s Web site said not a word about the need for an immediate moratorium on new coal plants. Indeed, on EDF’s blog the group’s chief scientist, Bill Chameides, was claiming that “there are clean coal technologies that will allow us to use our huge coal reserves without harming the climate.” (I was soon to learn that such optimism about “clean coal” was not shared by most grassroots activists.)

Another group, the National Wildlife Federation, seemed to recognize the immense threat posed by global warming. The group’s annual report expressed the matter clearly: “National Wildlife Federation is dedicated to confronting global warming as the most urgent threat to our mission of protecting wildlife for our children’s future.” Yet in that same report, the word *coal* did not appear even once.

Checking the Web sites of other major groups, including Nature Conservancy, Wilderness Society, and Audubon Society, I found much the same story. None of the groups appeared to be

doing anything to educate, much less mobilize, their members to stop the 151 proposed coal plants.

Perhaps I shouldn't have been so surprised. The mainstream environmental movement embraces an A-to-Z array of concerns, including endangered species, fisheries, habitat preservation, pesticides, product safety, toxic wastes, and dozens more. The movement might be described as a collection of silos, each silo representing one specialized issue. There is the Arctic Wildlife Refuge silo, the rainforest silo, the acid rain silo, the marine mammals silo, and so forth. In order to be effective, the large environmental groups tend to divide up issues among themselves; internally, their staffs tended to specialize further. Perhaps it was not realistic to think that the entire movement would ever channel its mobilizing energies into a single campaign.

On the other hand, climate pervades and even defines all other aspects of nature, and it's hard to imagine an environmental gain that couldn't be undone by global warming. For example, in order to protect an endangered species, one could expend vast efforts securing the protection of a piece of vital habitat. But all those efforts would be rendered moot if global warming radically altered the climate, making it unsuitable for the endangered animal.

Eventually, I did find two national groups that were mobilizing their members on the coal issue. One was the Sierra Club, the other the Rainforest Action Network. Still, in both cases, the coal campaigns had to vie with various other issues competing for the organization's attention. It seemed strange to me that of all the national environmental groups, not one was focused exclusively on stopping coal. If global warming was the greatest threat to the future of the planet, and if stopping coal

was 80 percent of the solution to global warming, then such a highly focused group seemed fully warranted.

Obviously, I was in no position to conjure a new environmental group out of thin air. But I had to do *something*, if only to avoid a sense of utter powerlessness. I decided to create a simple one-page Web site that would give people a capsule description of Hansen's proposal for a moratorium on new coal plants, provide links to news stories and research on the coal, and link people directly to activist campaigns. The whole effort took just a few hours. I kept things as simple as possible, including a straightforward banner headline: "Coal Moratorium Now!" By midday the Web site was completed, and I sat back to admire my work.

"Crude," I thought, "but not a disaster."

Next, I decided to dig deeper into what this new coal boom was all about, wondering why coal was still such a big part of the U.S. energy mix. I soon learned that the existing fleet of about 600 coal plants, many of them dating to the Eisenhower administration, provides about half of the electricity used in the United States. Building a new coal plant, let alone 151, is a vast and expensive undertaking. Consider the dimensions of the typical coal plant, including an immense boiler housed in a twelve-story-tall building and an 800-foot smokestack visible from a distance of fifteen or twenty miles. Writers attempting to describe such construction projects often strain for metaphors: oceans of concrete, forests of steel girders. But no description can quite prepare you for the experience of coming to one of these plants in person, especially during the construction phase, when a workforce of several thousand, housed in its own temporary trailer city, works round the clock on a project whose price tag runs into the billions of dollars.

Once running, a single 500-megawatt plant can burn its way through a 125-car trainload of coal in two days. During combustion, each carbon atom in the coal combines with two oxygen atoms, creating a quantity of carbon dioxide that weighs approximately twice as much as the original train. To offset the carbon dioxide produced by a single coal plant, 850,000 SUV drivers would have to switch to Priuses. Even that comparison understates the consequences of a new power plant, since a car lasts about a decade, while a typical coal plant will continue to spew climate-torquing gases for sixty years or more.

It was easy to see why James Hansen was alarmed by the proposals for 151 new coal plants. Once built, they would become part of the energy infrastructure and would be almost impossible to dismantle, destroying any hopes that global warming might be prevented.

It wasn't supposed to be this way. Coal was the fuel of the past, especially the smoky nineteenth century when fossil fuels replaced animal and waterpower in English mill towns, propelling England as the first country to enter the Industrial Revolution. America and Germany, both well endowed with coal, had followed England's pathway. It was a mixed history. Cities became unhealthy places. Workers consigned to mine work, including children, lived truncated, impoverished lives.

Over time, the use of coal shifted away from everyday uses such as home heating. Instead, it became used primarily for generating electricity. Automation pushed coal production steadily westward, away from the underground mines of Appalachia and toward large strip mines in the Midwest and the West. After the environmental movement in the 1960s forced a recognition that acid rain caused by the sulfur in coal was

ruining forests up and down the Eastern Seaboard, new legislation accelerated the move toward lower-sulfur western coal.

After World War II, electric utilities continued building coal-fired power plants, but when the federal government changed its rules in 1992 to encourage the burning of natural gas in power plants, construction of coal plants virtually ceased. Then in 2000 a jump in the price of natural gas caused the pendulum to begin swinging back toward coal, as did a friendly shove from the newly arriving administration of George W. Bush. Within months of Bush's inauguration in 2001, Vice President Dick Cheney convened a secretive energy task force, among the aims of which was to revive the building of coal plants.

The *Washington Post* uncovered a typical piece of business for the energy task force: In February 2001 Jack N. Gerard, a top official with the National Mining Association, had a meeting at the offices of Cheney's staff with task force director Andrew Lundquist and other staffers. Gerard urged the administration to put the industry-friendly Department of Energy, rather than the Environmental Protection Agency, in charge of global warming policy. The administration adopted the recommendation, scuttling chances for greenhouse gas regulation.

With oilmen Bush and Cheney in charge, energy companies saw an opportunity to get as much accomplished as possible. Among the recommendations of the task force was that 1,300 to 1,800 new power plants would be built in the United States by 2020, with an emphasis on new coal-fired plants. Now it was six years later, and according to the list compiled by Erik Shuster, 151 coal plants were in various states of planning, permitting, and construction. The list showed coal plants on the drawing board in thirty-eight states. I was curious to know more. Where was each proposed plant located? What was the exact status

of each? After I had created the Web site highlighting James Hansen's call for a moratorium on new coal plants, it occurred to me that a useful next step would be to compile a brief status report on each proposed plant and add the information to the Web site.

To find out the status of the plants, it seemed that the best way to proceed was to call around the country and talk to the grassroots groups that tend to do so much of the heavy lifting on environmental issues. I picked up the phone and called Mark Trechock at the Dakota Resource Council (DRC), a farmer/rancher organization located in my hometown of Dickinson, North Dakota. Growing up in that part of southwestern North Dakota, I had often seen the black smoke spewing from a local coal-fired briquette factory, and during the summers I had worked in the shadows of the immense draglines that mine the coal. After college, I'd taken a job as a community organizer for DRC before moving on to other endeavors. But I'd stayed in touch with the group, and Trechock was a good friend. In response to my questions, he quickly updated me on coal projects in North Dakota and suggested that an even quicker way to do my research would be to join a computer mailing list called No New Coal Plants, an online forum that had become a favorite gathering spot for antioal activists.

"Send an e-mail to Mary Jo Stueve at South Dakota Clean Water Action," he said. "She'll help you get on the list."

