

Would a Washington state coal port mean a damn thing to the environment?

Proponents of a coal port say fuel from here would be cleaner than what China would burn from domestic supplies. Opponents worry about the effects of any coal on the climate. But maybe our decision isn't that big a deal either way. Further: the economics of high-cost U.S. coal may be the real limiting factor.

By Daniel Jack Chasan

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People who back the idea of a coal port in Whatcom County have added a sophisticated new argument to their arsenal: They're not just saying "jobs." And they're not just saying, "If we don't ship coal to China, someone else will." They're also saying, "If the Chinese don't burn our coal, they'll burn something worse."

Ken Oplinger, president/CEO of the Bellingham/Whatcom Chamber of Commerce & Industry, and Chris Johnson, vice president of the Northwest Washington Central Labor Council, argued recently in *The Seattle Times*: "Stopping the terminal will not stop China from using coal; the world has plenty. It will only stop China from using our cleaner coal, which has less mercury, sulfur and nitrogen oxides. Opponents say the coal China uses affects our air quality. So if they use our coal, our air will actually be cleaner."

It's true that stopping the terminal will not stop China from using coal. Blocking construction of a port at Cherry Point, or Longview, or any place else in the Pacific Northwest won't reduce by even one lump the amount of coal burned in Chinese or Indian power plants. There's plenty of coal in the world. It can reach Asian power plants in many ways. The presence or absence of a coal port anywhere in Washington will have zero effect on Chinese energy production. It will also have zero effect on global climate change, which — not conventional air pollution — is the big issue cited by opponents of a coal port in Washington state.

"The *total* amount of fossil fuel burned globally is going to determine the fate of the climate," says David Hawkins, director of climate programs for the Natural Resources Defense Council (NRDC), who served as the EPA's assistant administrator for air, noise and radiation under President Jimmy Carter. Where it's mined and where it's burned probably don't matter a whole lot. "The only thing that matters for climate is the total coal burn in the long run," says David B. Rutledge, the Kiyo and Eiko Tomiyasu Professor of Electrical Engineering at CalTech, who is an expert in fossil fuel supplies, "not the burn in any particular year or who burns it. From that perspective, there would be no climate impact [of shipping or not shipping a given amount of coal through Washington], assuming that it is burned by somewhere, sometime."

One can still make a moral argument against shipping coal through Washington: If we think it's wrong, we shouldn't become part of the process. One can also make the — somewhat hopeful — political argument that someone has to take the first step. If not us, who? If not now, when?

"We are in the moral hazard zone on this," says K.C. Golden, policy director of Climate Solutions. "We are in the wrong participating in any way in accelerating this." He sees the flap over the coal port as "the start of a long discussion about what is going to happen on the west coast of the United States. "It's an opportunity to reflect on what ... this economic crossroads look(s) like," he says. "We are past the point at which we can 'protect' the environment from the ravages of the fossil fuel economy. We have to *replace* the fossil fuel economy."

The U.S. has a lot of coal. We are no more likely to leave it all in the ground than Saudi Arabia is likely to forget about its oil. But even though President Barack Obama has touted "clean coal" as part of the nation's energy future, U.S. utilities aren't building a lot of coal-fired power plants. If the coal industry wants new markets, it has to find them overseas. Already, the U.S. exports coal from ports on the Gulf and Atlantic coasts. That doesn't do you much good if you want to sell coal strip mined from the Powder River Basin of Wyoming and Montana. Asian demand could create a lucrative market for that coal.

But transportation costs matter, so hauling Powder River coal to the Gulf or Atlantic coast and then shipping it all the way to China sounds like a loser. Therefore, if you want to export Montana and Wyoming coal — which if you are, say, the Australian-based owner of coal mines in the two U.S. states or the governor of Montana, you probably do — then you'd better hope for a coal port on the Pacific coast. This is where Cherry Point and Longview come in.

But the most likely alternative is just that someone else makes money selling coal to Peking. Whether or not more coal trains rumble through Bellingham to Cherry Point or through the Columbia Gorge to Longview, the chance that China will burn more of its own coal seems slim. China wants to import coal because that will be cheaper than extracting and transporting it from inefficient mines closer to home. The Powder River Basin is hardly the only prospective source.

Asked about the argument that if coal isn't shipped from Montana or Wyoming, it will be mined in China, Rutledge says, "I suspect you could make a better argument that it would be imported from Australia or Indonesia, with coal quality similar to ours." At this point, he says, "it looks like Indonesia is handling most of the new exports. The biggest increase in production last year outside of China was from Indonesia, up 50 million metric tons. Australia went up 11 million metric tons. The U.S. went up 9 million metric tons."

Indonesia is already the largest exporter of coal to India and Japan. And Australia is already the world's largest coal exporter, period. Environmentalists are trying to block coal exports from Australia, too. The advocates of shipping coal from Down Under are hitting their opponents with a familiar argument: If importing countries don't burn Australian coal, they'll burn something worse.

"Dirty coal' likely to fill supply hole if exports cease," proclaims a May headline in *The Australian*. "Stopping the expansion of Australia's \$36 billion coal export industry without an international agreement on global warming could boost global carbon emissions, because Asian power stations are likely to plug the big supply gap with even dirtier coal from China, Indonesia and Russia," the article explained.

Australia and Indonesia don't exhaust the list of potential suppliers. Mongolia has coal, too. So does Russia. Russia already sells coal to the rest of Europe, but European countries, too, are looking at other ways to generate electricity. Russia, too, is looking for new markets; it is already creating infrastructure for selling coal to east Asia.

The pollutants that "dirty" coal can produce — while hardly trivial — don't contribute to the long-term buildup of greenhouse gases. (And coal-fired power plants don't spew out much of the world's mercury pollution. Reducing the amount of mercury they do spew out is largely a matter of installing control devices and processes at the plants.) "Mercury does not contribute to climate change," CalTech's Rutledge says. "Sulfur is thought to give some short-term smog and cooling. NO and NO₂ [both nitrogen oxides] are thought to contribute to short-term smog and warming. Other things, like black carbon, are thought to contribute to short-term warming. [It's] not clear how this all adds up in the long run." One side is arguing climate change. The other is arguing conventional pollution. Never the twain shall meet.

The Chinese and a lot of other people will keep burning coal for at least the next couple of decades whether it's shipped through Washington or not. One can argue that as a matter of social and economic equity, we shouldn't expect them to stop. "I personally have no objection to selling coal to China," Rutledge says. "The Chinese view coal as a ticket out of poverty. A hundred years ago, we did too."

If one worries about climate change, one had better hope that China and other coal burning nations — including this one — start sequestering the carbon produced when coal goes up in smoke. Carbon dioxide is already pumped into old oil wells to boost production. But not everyone has an old oil well next door. Still, the sequestration "issue is not technical, the issue is economic," Hawkins says. "If we had a serious program to protect the climate, sequestration would be economic." If that happens, down the road, "independent projections say sequestration will be competitive with all these other alternatives." But there's a caveat: "That's not going to happen on a serious scale until we have a serious climate policy in place."

Even without considering sequestration, the economic framework is a lot less predictable than the people who want to build coal ports suggest. Chinese demand is real. Powder River Basin coal is real. But the idea that the former will provide a virtually unlimited market for the latter may prove illusory. "Previous unsuccessful efforts to operate a western coal terminal . . . make new western coal ports less likely," the U.S. Energy Information Administration's *International Energy Outlook 2010* suggested last July. "In the late 1990s, substantial investments were made at the Los Angeles Export Terminal to support coal exports, but the terminal closed in 2003 when the anticipated surge in U.S. coal exports to Asian markets did not materialize. While Asia's coal import demand grew during that period, its demand for U.S. coal did not."

Is this time different? The EIA didn't think so: "Some analysts have viewed the sharp increase in U.S. exports as an indication of the growing importance of the United States as a world coal supplier. There has also been speculation that China's growing demand for coal will support this trend in the future. However, U.S. coal is a relatively high-cost supply source when shipped to Asian markets, and in the long term U.S. coal will be competing in the Chinese market with lower cost suppliers, notably Australia and Indonesia among others. U.S. exports compete most strongly in European markets and then only when less expensive options are unavailable. . . . [T]he United States remains a marginal coal supplier over the long term, responding to short-term disruptions or spikes in demand rather than significantly expanding its market share of world coal trade."

The legal and policy frameworks aren't predictable, either. "If we proceed with this big export project now," the NRDC's Hawkins says, "one thing is relatively certain: . . . At some time before we get very far. . . . the rules are going to change." This isn't necessarily a bad thing. "I'm an optimist," he says. "I believe that at some point, reality will prevail."

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“By importing U.S. coal, China is not changing the amount of coal that it burns. I understand why on an emotional level people don’t like it. But if you actually understand the economics, and you understand how climate change works, it’s a non-issue.”

--Richard Morse, director of research on coal and carbon markets at Stanford University, *Trading Markets* 12/27/10