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A dark red rectangular box containing the name "JESSICA CHASTAIN" in white, uppercase, sans-serif font.

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A Battle in Mining Country Pits Coal Against Wind

By **TOM ZELLER Jr.**

ROCK CREEK, W.Va.

LORELEI SCARBRO'S husband, Kenneth, an underground **coal** miner for more than 30 years, is buried in a small family cemetery near her property here at the base of Coal River Mountain. The headstone is engraved with two roosters facing off, their feathers ruffled. Kenneth, who loved cockfighting, died in 1999, and, Ms. Scarbro says, he would have hated seeing the tops of mountains lopped off with explosives and heavy machinery by mining companies searching for coal.

Critics say the practice, known as "mountaintop removal mining," is as devastating to the local environment as it is economically efficient for coal companies, one of which is poised to begin carving up Coal River Mountain. And that has Ms. Scarbro and other residents of western Raleigh County in a face-off of their own.

Their goal is to save the mountain, and they intend to do so with a wind farm. At least one study has shown that a wind project could be a feasible alternative to coal mining here, although the coal industry's control over the land and the uncertain and often tenuous financial prospects of wind generation appear to make it unlikely to be pursued. That, residents say, would be a mistake.

"If we don't stop this," Ms. Scarbro says, adjusting the flowers on her husband's grave, "one day we'll be standing on a big pile of rock and debris, and we'll be asking, 'What do we do now?'"

For many renewable-energy advocates outside the region, the struggle at Coal River Mountain has become emblematic of an effort across the country to find alternatives to fossil fuels. They have lent money, expertise and high-profile celebrities like Daryl Hannah and **James Hansen**, the **NASA** climate scientist, to help residents advance their case for wind power and to make it a test case for others pursuing similar projects nationwide.

The mountain, which is privately owned and leased to coal interests, is also one of the last intact

mountaintops in a region whose contours have otherwise been irreversibly altered by extreme surface-mining techniques. Preserving its peaks for a wind farm, plan advocates say, could provide needed job diversification for impoverished towns that otherwise live or die by the fortunes of coal.

Don L. Blankenship, the chief executive of **Massey Energy**, the largest coal company in West Virginia and the one planning to cut into Coal River Mountain's peaks, has repeatedly called assertions of long- and short-term environmental damage exaggerated.

"There are a lot of misstatements out there," Mr. Blankenship says. "I don't find the environmental damage to be nearly what people say they find it to be, and we're struggling with whether the true objective of all these regulations is to protect the environment, or whether it's simply to stop the mining of coal."

While the odds remain slim that wind power will replace coal mining here, proponents say that changes in state and federal mining regulations could tilt things in their favor.

"We want to make it economically unfeasible to do mountaintop mining," Ms. Scarbro says.

COAL mining of all kinds has long played a vital role in the West Virginia economy, and the state still sits on more than 30 billion tons of coal reserves, [according to federal estimates](#). It [produced](#) 158 million tons in 2008, second only to Wyoming, at 468 million. And with roughly half of the United States' electricity derived from coal-fired power plants, the incentive to keep digging here is strong — particularly in the handful of counties in the southwest corner of the state, where a majority of its 20,000 coal-industry jobs are concentrated.

Still, that number is down substantially from a peak of 130,000 jobs in the 1940s, and the decrease suggests less about production than about the rise of mechanized surface mining, including mountaintop removal. The resulting debris — a mixture of rock, dirt and other leftovers known as "spoil" — is dumped into valleys and streams below.

Hundreds of feet of elevation are sometimes removed, with equal amounts of nearby valley filled in, creating a peculiar landscape of high, wide plateaus in various stages of revegetation, encircled by the pointy, forested peaks native to the area.

Outside the industry, mountaintop removal mining has few defenders, and it has come under increasing regulatory scrutiny for its environmental impact. Mining companies, however, value it as a cost-effective way to gain access to coal deposits that otherwise couldn't be reached.

[Two studies](#) released this spring by environmental groups, the [Natural Resources Defense Council](#) and [Appalachian Voices](#), used aerial and satellite analysis to document at least 500

mountaintops and roughly 1.2 million acres in four states that have been altered by mountaintop removal. The Appalachian Voices report estimated that 352,000 acres and 136 mountains have been affected in West Virginia alone.

Federal and state permits have long been granted for this type of mining, though that appears to be changing. The [Environmental Protection Agency signaled this spring](#) that it would be instructing its regional offices to raise the bar for permitting valley fills, which have been linked to increases in potentially hazardous chemicals downstream.

If the guidance is enforced, it could make mountaintop removal mining, at least as it is now practiced, all but impossible — but that remains far from certain.

Coal industry executives and landowners, meanwhile, argue that flattened mountaintops are easier to develop for agriculture, housing, shopping centers or even [wind farms](#).

Massey Energy's Mr. Blankenship — whom detractors often try to portray as a Luciferian overlord of fossil fuel production— relies on what he sees as an elementary cost-benefit analysis when discussing wind power: if you make coal mining more expensive, the cost of electric power goes up.

“If you raise the cost of a kilowatt-hour from a nickel to a quarter, then some American plant producing aluminum, or cars, or whatever, it goes out of business, because you can then put your factories in Asia, where you can get that electricity for a nickel or less,” Mr. Blankenship says.

Ms. Scarbro sees things differently. “While I'd be happy if no man ever had to go underground again to mine a lump of coal, I also know that we need it,” she says. “We need coal for steel, and we need steel to make wind turbines. But I am 100 percent against mountaintop removal mining.”

Shoving aside the coffee table in her living room, Ms. Scarbro — the 55-year-old daughter, granddaughter, mother-in-law and widow of West Virginia coal miners — unfolded a map depicting the three parts of Coal River Mountain that Massey plans to surface-mine. She pointed out her home on the map, near the end of a winding, forested hollow supporting walnut trees, wild ginseng and a variety of fruit trees.

The forests in this part of the state are among the most biologically diverse in the world. Although stressed by two centuries of development, including 100 years of underground coal mining, the steep ridges and valleys still support a staggeringly diverse tree canopy, dozens of herb and mushroom species, plentiful stocks of perch, trout and catfish, a variety of native and migratory birds, a veritable rainbow of salamanders as well as coyotes, deer, black bears and

bobcats.

Ms. Scarbro reckons that curbing mountaintop removal, by whatever means, would not only protect some of that diversity — and perhaps help lure more tourists — but would also create more coal jobs, because it would make coal companies go back to more labor-intensive underground mining. That would presumably include an expansion of jobs at Coal River Mountain, which has long been mined from below.

Throw a large wind farm into the mix, Ms. Scarbro says — and perhaps even a turbine factory — and the coal-dependent economies around the mountain might diversify and thrive.

“The problem is, nobody here has any choices,” Ms. Scarbro says. “The miners doing mountaintop removal don’t have any choices, because they need their jobs to provide for their families. And people like me have no choice but to fight it, because if we don’t, nothing will change.”

THE idea for a wind project first surfaced in 2006, after [David Orr](#), a professor of environmental studies at Oberlin College in Ohio, approached researchers at the [National Renewable Energy Laboratory](#), part of the Department of Energy, about its analysis of wind potential around the country.

“We were supporting lots of groups trying to stop mountaintop removal and to do remediation at former sites,” Professor Orr says. “But we realized that, while that’s fine, it’s hard to get something done if you’re always just against something. So we began looking for alternatives to mountaintop mining.”

The lab’s wind resource maps showed West Virginia’s potential as modest compared with that of blustery states like North Dakota and Montana. And the best wind in the state tended to be in the northeast corner, far from the southern heart of coal country.

Undeterred, Professor Orr reached out to [WindLogics](#), a St. Paul-based company that provides wind resource assessments for utility-scale projects. Using computer modeling, WindLogics produced a detailed assessment of specific sites in West Virginia — including Coal River Mountain — suggesting that the winds atop some peaks even in coal country were strong and steady enough to support a wind farm.

By 2008, those models had been folded into an economic comparison between future surface mining at Coal River Mountain and the proposed placement of a 164-turbine, 328-megawatt wind farm along its spine. [The analysis](#) — which Professor Orr, the [Sierra Club](#) and other groups helped finance on behalf of [Coal River Mountain Watch](#), a community group in the once-bustling town of Whitesville — found that the energy potential of the mountain’s coal, and the royalties

that would accrue to companies owning land there, vastly outstripped anything a wind farm could replicate, at least in the short term.

The longer view, however, seemed to argue strongly for a wind farm.

Using wind turbine tax rules established by the state in 2007, the researchers calculated that a wind farm of the size proposed for Coal River Mountain would generate \$1.74 million in annual tax revenue for Raleigh County. That's roughly equal to the total coal taxes the county collected for the 2007-2008 fiscal year, according to the state auditor.

The portion of added tax revenue that would arise from surface mining Coal River Mountain was estimated at \$36,000 a year for the next 17 years, at which point the resource would be exhausted. But a wind farm could keep generating revenue indefinitely for the county. It would also generate several hundred construction jobs, and several dozen permanent maintenance jobs.

Luring a turbine production plant while continuing to mine coal underground could generate more than 1,000 jobs, the report found. And Rory McIlmoil, a former member of Coal River Mountain Watch and now a project manager for the energy and climate-change practice at [Downstream Strategies](#), which produced the economic analysis, said that despite the coal industry's protestations to the contrary, a decapitated Coal River Mountain would no longer be suitable for wind development.

"If you decrease the elevation, you decrease the wind resource," he said. "There would be no more utility-scale wind up there."

The real world, of course, presents other complications. Wind power, for example, currently cannot compete with cheap coal without substantial subsidies. And if one aim of wind development is to reduce carbon dioxide emissions, even the authors of the Coal River economic study noted that there were more economical ways to do it. A 2008 study found that at some Texas wind projects, the cost of the subsidies exceeded the value of the emissions that were being offset.

Wind turbines also have environmental impacts — including the roads needed to gain access to the mountaintops, the trees that would have to be stripped away for giant turbine footprints and the inevitable number of birds and bats that would be bludgeoned by 164 mountaintop Cuisinarts. Many communities in West Virginia — and across the country — have been beating back wind projects they see as a blight on wide-angle views and, with the repetitive thrum of the turning blades and their strobelike effect on daylight passing through them, psychological torture for those living nearby.

Echoing the decadelong court battles that nearly derailed a major offshore wind project off Cape Cod in Massachusetts, citizens of Greenbrier County, W.Va., represented by a group called [Mountain Communities for Responsible Energy](#), battled a proposed wind farm there for more than five years, citing negative impacts on property values, threats to birds, and other downsides.

A United States District Court brokered a compromise in January that would allow 67 of 124 proposed turbines to proceed — though on its Web site, the group says it remains “convinced that massive installation of industrial wind turbines on forested ridges will create more problems than it will solve.”

DAVID POLLITT, owner of the Rowland Land Company, the largest of the property owners on Coal River Mountain, says he has nothing against wind farms in principle, but adds that he believes the technology is too expensive, too undeveloped and too rife with its own environmental objections to be viable. In any case, until mountaintop removal is banned, he says leasing his land to coal developers is simply too profitable not to do.

“Certainly if it came to a point in time where the companies we have it leased to say they don’t need the surface, then we can look at alternatives,” Mr. Pollitt says. “And if there ever comes a point in time where they completely outlaw surface mining, we’d certainly look at alternatives. We’d look at anything that would generate income for us.”

For now, though, that’s likely to remain coal, and Massey Energy has already begun blasting on one corner of Coal River Mountain.

“I do believe that people who own property, if they conduct the use of that property in a manner that doesn’t bother other people and doesn’t impact water and so forth in a meaningful way, have a right to the use of that property,” says Mr. Blankenship, Massey’s C.E.O. He adds that sooner or later, environmentalists, wind advocates and government regulators will drive electricity costs so high that they will see their folly.

“At some point in time, hardship or pragmatism or truth will take over, and jobs and schools and communities will become more important,” he says.

Despite all of this, advocates for the wind facility continue to travel to Charleston, the state capital — and to Washington.

And the cause for a wind farm here has also been taken up by a Who’s Who of environmental celebrities. [Ashley Judd](#), an opponent of mountaintop mining, has championed renewable energy development in the region. Mr. Hansen, the NASA climate scientist, joined Ms. Hannah, the actress and environmentalist, at a rally in Raleigh County last summer. They spoke to a

crowd of several hundred about the ravages of mountaintop removal and the virtues of renewable energy.

Not everyone in the community agreed, and local miners and their families, who see the movement against mountaintop removal mining as a threat to their livelihoods, repeatedly shouted them down. Mr. Hansen and Ms. Hannah were among 30 people arrested after the rally, accused of blocking traffic outside a Massey preparation plant.

In Raleigh County, local officials have given a polite hearing to the Coal River wind proposal, but say they should not be made to choose between industries.

Some advocates express hope that a wealthy benefactor might someday sweep in and buy the land from Rowland, providing an avenue for wind development. Ms. Scarbro and the authors of the wind project study suggested that Gov. [Joe Manchin III](#) of West Virginia could use his administration's executive powers to rescind Massey's surface-mine permits on the mountain.

But Governor Manchin says such a move is pure fantasy. "People believe that just because you're the governor you can do anything," he says. "They think that with just a stroke of the pen I can tell them to do this or that."

Nonetheless, in a visit to the state capital last fall, Ms. Scarbro, flanked by demonstrators holding signs reading "Yes, Wind," implored him to intervene.

"What we're trying to do is find balance — you know that," the governor told the protesters in an exchange captured on [YouTube](#). "I mean, it's tough to find balance in an extraction state."

Ms. Scarbro, invoking West Virginia's official state nickname, replied, "We're the Mountain State, not the extraction state."

Ben Werschkul contributed reporting from Whitesville, W. Va.

This article has been revised to reflect the following correction:

Correction: August 21, 2010

An article last Sunday about proposed mountaintop mining at Coal River Mountain in West Virginia referred incorrectly to a court-brokered compromise in January on a planned wind farm in Greenbrier County, W.Va. It allowed work to proceed on more than half, or 67 of 124 proposed turbines there, and allowed up to 33 others to be added later, though some at sites not in the original proposal; it did not allow just "a small part" of the project to proceed.

