TRIBAL WIND AMBITION VICTIM OF POLICY VOID

Native American tribes are keen to build and own large wind projects and bring their centuries-old ethos of living in harmony off the land into the modern age. But a combination of low power prices and ineffective federal wind policies has, they say, left them out in the cold

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"Tribal wind is ready for prime time," says Bob Gough, a co-founder of the Intertribal Council on Utility Policy (Coup), a non-profit renewable energy advocacy group founded in 1994. The biggest potential for Native American wind development is in the Missouri River basin – a giant swath of land that includes large parts of Montana, Wyoming, the Dakotas, Nebraska and Missouri, where the nation's longest river finally joins the Mississippi River at St. Louis. In fact, in Montana, Wyoming and the Dakotas alone, Gough says at least 13 GW of wind power projects could be installed on native land with the right incentives in place.

And yet, America's 562 native tribes currently own less than 4 MW of wind capacity between them, roughly half of which is in Alaska. As a community, though, they own vast tracts of wind-rich land across the United States with good proximity to prime transmission networks (see map). The lack of wind turbines on their land is all the more bewildering in the context of the US being the world's leading wind power market. The US industry installed over 8.3 GW in 2008 alone to take its cumulative wind total up to 25.4 GW at the start of this year and push it ahead of Germany as the country with the most wind capacity installed to date (WINDPOWER MONTHLY, March 2009).

It would be all too easy, then, to think the lack of wind power capacity on tribal lands is simply due to a lack of interest on their part. Wrong, says Gough, who serves as Coup's secretary and legal counsel. Despite an intense desire to pursue large-scale wind project development, Native Americans have found themselves repeatedly stymied in that ambition, he and others suggest.

The American penchant for cheap, coal-fired power stations, combined with narrowly prescribed federal incentives for renewable energy – which effectively exclude Native Americans – has, Gough and his compatriots argue, conspired to limit wind development on native land.

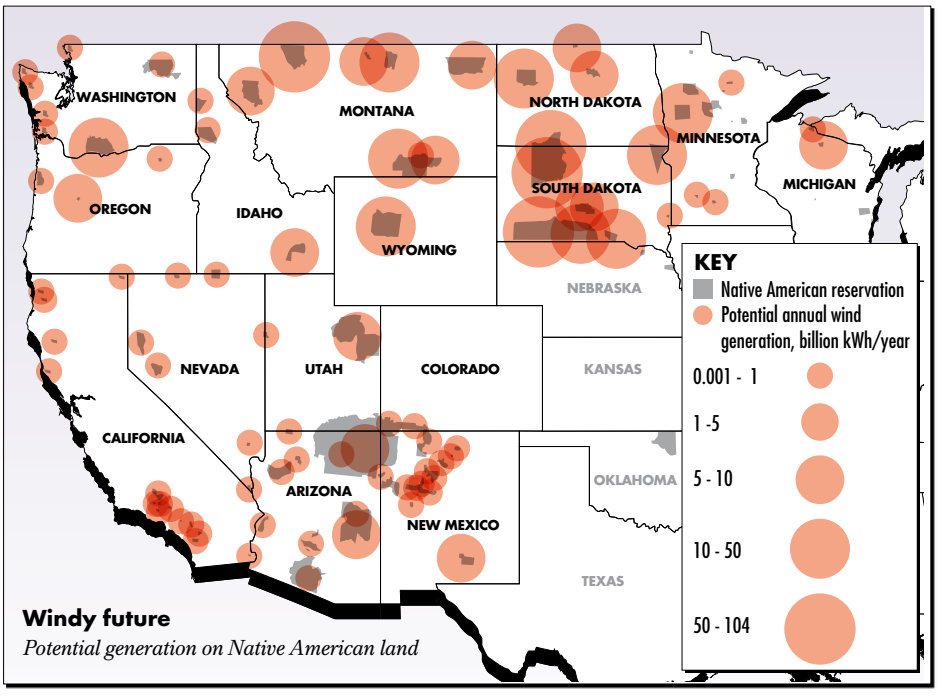
"We're going to have to fight for a voice and we're going to have to fight for a seat at the table," says Faye Brown, development and communications director at Honor the Earth, a Minnesota-based advocate for large-scale native developments. It's a battle that she and Gough have both personally been fighting for some time now.

The main problem, they say, is that the key federal government support programmes, which have fuelled the US wind boom in the private sector, fall beyond the tribes' reach. Tribal lands operate as sovereign governments within the US and those who live and work on the reservations do not pay state taxes. Use of the primary federal support programmes, including the highly prized production tax credit (PTC) or the investment tax credit (ITC), is tax-driven, however, triggered by a need on the part of companies to reduce tax burdens. They can do so by investing in wind projects and benefiting from PTC or ITC rules. Tax-exempt entities such as Native American reservations are excluded from using such programmes.

An alternative support mechanism for tax-exempt entities exists in the form of federal-level clean renewable energy bonds, but these are best suited to small projects with predictable, steady income. With the wind resources on their lands, the tribes want to develop larger-scale projects to maximise efficiency and production benefits. They are not so eager to employ the so-called flip model, where investors own 99% of a project for ten years, collect the PTC, then transfer ownership to the tribes. This method of development, they note, puts decision-making power in the hands of the equity player rather than the tribe that owns the land.

HISTORICAL PROBLEM

The root of the current Native American wind power saga goes back at least a century and a half. Treaties from



Windy future
Potential generation on Native American land

Heavy struggle: *The 65 kW Nordtank turbine on the Pine Ridge Reservation in South Dakota is one the few wind projects that has got off the ground*

Freedom tower: *The Rosebud tribe lost its investment partner after refusing to sign over development rights, but still managed to bring its first 750 kW NEG Micon turbine online in 2003*

the mid-1800s recognised large chunks of five states as belonging to the Great Sioux Nation. Tribes believed they had full rights in the waters of the Missouri River, which would include low-cost federal hydroelectric power, a by-product of dams built largely for flood control. "But for the tribes, flood control meant they were permanently flooded," says Gough. "You get the reservoir and somebody else gets the benefits of flood control. For the tribes, you get flooded and somebody else is in control."

When the Rosebud, Pine Ridge and Standing Rock tribes sought to access their river rights and buy low-cost federal hydroelectric power in the mid-1980s, they discovered that regulations allowed sales only to utilities. In addition, hydro allocations are sold in 20-year blocks — the most recent sale in the 1980s meant a 15-year wait. "What statute giveth, regulation taketh away," Gough says. "And since the tribes weren't utilities, the government said, you're entitled to it, but we can't sell it to you because you're not a utility."

More, the tribes were told by the US Army Corps of Engineers, the federal agency operating the dams, that every tribe with river rights had to come to the table. "I think they thought they'd never hear from the tribes again," Gough says. "But 28 or 30 tribes got organised in the region of the upper Missouri River." For the 2000-2020 hydro allocation block, WAPA then allocated 65 MW for new customers of hydropower, mainly the tribes, to share.

Meantime, Coup was formed to examine policy, look at opportunities, figure out how to get power delivered to the reservations and develop an integrated resource plan, as required to get federal hydropower. While figuring out how to share power, the tribes learned how utilities work. And, as a matter of course, they set up an anemometer at Rosebud to assess the wind resource.

"Talk about a light bulb [lighting up]," Gough says. "We could see that you could probably produce 65 MW of clean energy on every square mile of almost any reservation. And here we were, for nearly 15 years, wrestling over how to divide 65 MW of hydropower. The tribes have millions of acres of land that could produce many, many, many times over that much power."

In the late 1990s, the US Department of Energy made a total of $1.6 million in matching grant money available for all 562 tribes in the country combined. The Rosebud tribe was able to parlay its new-found information into a grant of roughly $500,000, enough to pay for half of a 750 kW NEG Micon turbine and a feasibility study. "The tribe had a potential partner who was more than happy to lend them the other half million dollars," Gough says. "But they wanted exclusive rights to all the renewable energy development on the reservation as long as the wind blows and the grass grows. And our utility commission, our negotiating team, said those days are over."

The partner backed out. But the US Department of Agriculture's rural utility service loaned the tribe the money to move forward. The turbine, in South Dakota near the Nebraska border, went online in 2003. "I personally felt an obligation to Indian country that if we're going to take a third of the entire renewable energy budget for one project, we had to make it successful, we had to make it good," Gough says. "And we had to make sure we spread the word on what we learned from that project. We want to not only build wind turbines, we want to build business capacity for the tribes."

REALITY CHECK

For Brown, the current options available for tribes are limited because US policy generally continues to be stacked against Native Americans. "We're still talking about reservations without paved roads," she says. "We're talking about a lot of reservations that are not even electrified." And many of these reservations are in remote areas: "Often what happens is money flows last to those areas because, for the most part, in terms of state governments and other localities, Indian people are out of sight, out of mind. That's just reality."

The issue is not so cut and dried, others say. The US tribal governments lack uniformity, making it difficult to create a one-size-fits-all policy. In addition, for developers, dealing with matters of Indian sovereignty can often represent an extra layer of complication, and with it the potential for increased costs, suggests Larry Flowers, principal project leader for the US Department of Energy's (DOE's) Wind Powering America programme. Disputes about Indian sovereignty can end up going to tribal councils for a ruling rather than US courts, and tribal governments often change at two-year intervals, creating greater uncertainty from an investor perspective.

Flowers has provided technical advice and assistance to Native American tribes regarding their wind pursuits for the last decade. During that time, he says, he has seen US installed wind power capacity increase tenfold, with barely a blip in the Native American total. "When we first started Wind Powering America, I had to ask why," he says. "But it's not because they don't have the wind resource. It's because private developers look at time as money. So if they see working with tribes as taking longer and not being straightforward and simple, it's not that they're discriminating against tribes, it's just that they can find a better financial deal. That's why you see most wind development on privately owned land."

The issue of the lack of wind development on tribal lands has not been totally ignored by the non-tribal world. Recognising the potential in the Missouri River basin, the

Energy Policy Act of 2005 called for the Western Area Power Administration (WAPA) to integrate tribal wind resources with firm federal hydroelectric power generated from the Missouri River, which contains the largest dam capacity in the country. But that call has not yet been backed up with strong policy, enforcement or funding, Gough says.

The impact of eight to nine years of drought reducing available hydroelectric capacity has, meanwhile, meant that WAPA has had to buy supplemental power on the open market. Most of this has come from lignite coal power stations operated by Basin Electric Cooperative, says Gough. "Lignite is dirt," he says. "It produces more carbon dioxde per megawatt hour of electricity than any other generation resource in the country. We've got the richest wind regime in the country but, because dirt is so cheap to burn, it sets the market price for energy in the region."

Compromise: *The Campo tribe does not own the 50 MW Kumeyaay project, with 2 MW Gamesa turbines, on its land east of San Diego, California*

Gough says the cost for each kilowatt hour from burning lignite is less than the two-cent PTC federal incentive for wind, which Native American projects are not eligible for in the first place. "That's why it's very difficult to get these big [wind] projects up," he says. "We're not only dealing with the lowest market prices in the country, we're going into that market without any incentives."

WAPA's transmission lines, however, run through large sections of native land, because the government found that paying for permission was often an area of easy negotiation with the tribes. The electricity grid running from Minnesota to California was specifically intended to serve federal dams that were built beginning in the 1950s. The wires carried 100% hydropower until the recent droughts. Then the mix changed. Basin Electric simply built a few hundred miles of extra transmission capacity in order to connect into WAPA's 17,000-mile backbone, Gough explains. "We often see that the coal boys run their carbon on the federal grid pretty much the same way the cowboys used to run their cows on the federal land," he adds. "They run it like they own it, like it's theirs. Today it's 85% coal where we are."

Coup believes WAPA should be turning to wind rather than coal to meet its supplemental power needs. "We think interjecting wind into that system can make a real difference," he says. "Because wind not only doesn't put the emissions in the air that reduce the snowpack, it also doesn't consume water taken out of the Missouri River. All of the conventional hydro plants on the Missouri consume vast amounts of water from the Missouri River."

The US 2009 Recovery Act provides WAPA with the authority to borrow $3.25 billion from the US Treasury to build new transmission capacity. Whether any new lines will be allocated specifically for wind farms on tribal lands that could be built in the future is unknown. Moreover, a recent study failed to provide a clear path. "What it concluded was that in times when there's adequate water, wind costs too much," says WAPA public affairs officer Randy Wilkerson. "But in years of drought, like we've had for the last eight or nine years, when we're having to go out on the open market to purchase power, wind power becomes much more attractive and economical. It's a complicated issue and there aren't easy answers."

Gough insists that with the right support mechanisms, the tribes are ready to build thousands of megawatts of wind power in Montana, Wyoming and the Dakotas, which would help WAPA reduce its dependence on coal. "We haven't been sleeping the last eight years," he says. "A lot of work has been done to get ready. But we need a couple of adjustments in the incentives programmes that would really make these projects pop."

OWNERSHIP

For tribal ownership of utility-scale projects to happen, Gough believes allowing tribes to own 51% of their projects while sharing their federal tax credits with investors would bring all the tax-based programmes into play and change the game for good. "If one taxable owner can monetise all of the credits for a project, the project still benefits," he says. "And that partner will benefit since there are advantages to being an investor in a tribal project. That's because the tribes, as governments, may be able to get easier access to the federal grid than private developers." Tribes on the WAPA grid are preference customers. "But they should also be considered preference vendors into the grid because the tribes are governments and their projects are government instrumentalities," says Gough.

Even better would be convincing a reasonably friendly White House to introduce so-called feed-in tariffs or guaranteed fixed purchase prices for wind power. WAPA could then simply commission 500 MW or more of wind projects, including projects on tribal land, offering a standard price per kilowatt hour. "That's what's happened in Germany, that's what's happened in Ontario, and it's happening in Gainesville, Florida," Gough says. "There's no reason it shouldn't be the case if the feds are serious about their responsibility to work with the tribes and really encourage economic development."

For now, though, tribal wind development remains limited to just a few projects. The Rosebud tribe is working with Distributed Generation Systems, a Colorado developer, to complete a project of at least 30 MW in the coming 12 to 24 months. And the Campo tribe, near San Diego, recently announced plans for its second development, planned to be up to 160 MW, within a few years. Its land is already home to the 50 MW Kumeyaay Wind Farm, which went online in 2005. But like that project, neither of the two projects in development will be tribal owned. In August, meantime, the DOE announced $13.6 million in funding for clean energy development to be shared between 36 tribes and matched by up to $27 million in private and public investment. This money, however, will be spread among solar, hydro, energy efficiency and other projects in addition to wind.