

Indigenous Power: a New Energy Economy

By Winona LaDuke

The U.S. is the wealthiest and most dominant country in the world, yet it can't keep the lights on in New York City, nor can it provide power in "liberated" Baghdad. Centralized power production based on fossil fuel and nuclear resources has served to centralize political power, to disconnect communities from responsibility and control over energy, and to create a vast wasteful system. We need to recover democracy. And one key element is democratizing power production.

Let's face it, we are energy junkies. The U.S. is the largest energy market in the world, and we consume one third of the world's energy resources with five percent of the population. We are undeniably addicted—our economy is based on the burning of dinosaurs and on wasteful production systems. In other words, oil. Ninety-seven percent of the total world oil consumption has been in the past 70 years. We even slather oil-based fertilizers and herbicides on our food crops.

We have allowed our addictions to overtake our common sense and a good portion of our decency. We live in a country with the largest disparity between rich and poor of any industrialized country in the world. And, we live where economic power is clearly translated into political power.

Energy Addiction Is Changing the Climate

America's fossil fuel habit and the government's response plunge us further into serious challenges that grow worse with every year. In the last 200 years, we have caused the amount of carbon dioxide gases in the atmosphere to grow by almost one-third—more than in the last 20 million years.

Indigenous Peoples, Pacific Islanders, and local land-based communities are the first to experience the devastating consequences of climate change due to its effects on hunting, fishing, and gathering rights; the loss of land and food security; respiratory illnesses and infectious diseases; and economic and cultural displacement. Climate change is clearly a human rights issue.

Native Solutions

Twenty-three Indian reservations in the Great Plains possess enough wind to meet half of all U.S. electrical needs, or about 300 gigawatts of power. Great Lakes, Northwest and Northeastern nations also possess great potential. Likewise with solar energy. With tribal landholdings in the southwestern

United States equivalent to the size of Minnesota, tribal solar initiatives, in the words of one advocate, could "generate enough power to eradicate all fossil fuel burning power plants in the United States." And, the benefits go beyond electricity and less pollution. Renewable energy supports local economies by providing income, jobs, and tax revenue. It also respects our

traditions and responsibility to protect the sacredness of our Earth. All of this stands in stark contrast to the movement of capital out of the community with large-scale fossil fuel and nuclear projects that have afflicted tribes historically. Worldwatch President Christopher Flavin announced that the world is at an "energy tipping point," with produc-

Global Climate Change: The Evidence

According to the National Aeronautics and Space Administration (NASA), 2005 was one of the hottest years in more than a century.

Greenland ice is melting faster than anyone thought possible. Fifty-three cubic miles entered the sea in 2005, compared to 22 cubic miles in 1996. A cubic mile of water is about five times the amount Los Angeles uses in a year.

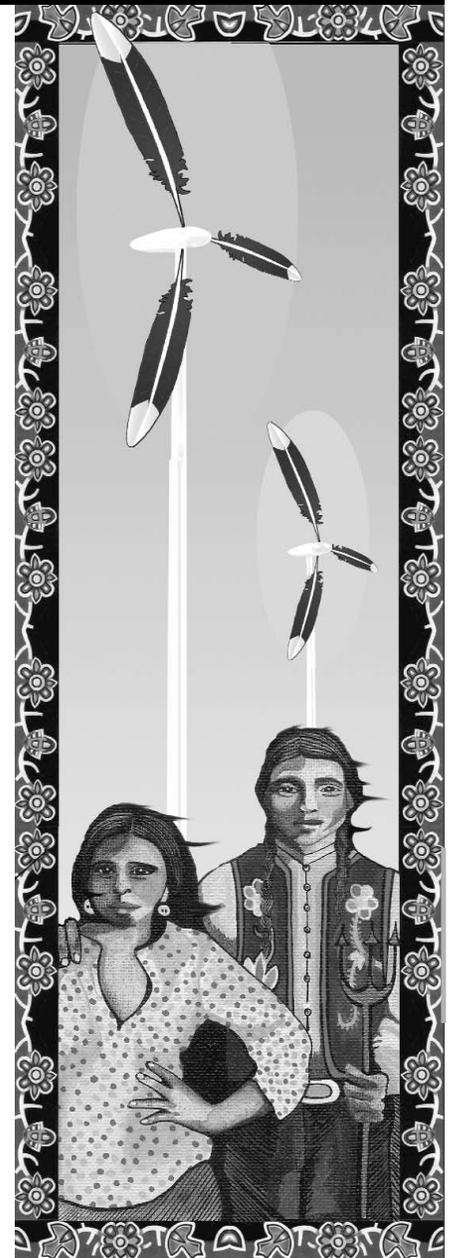
Those who live in the Arctic are experiencing shorter winters that disrupt the lifecycles of plants and animals that they depend on.

Dramatic fluctuations in water levels and warmer temperatures of lake waters have affected fish and insect populations, resulting in fish kills from growing dead zones in lakes, and severe infestations of disease-spreading insects, like mosquitoes.

Ironically, even as native communities are being hit hard by climate change, some of the largest carbon dioxide emitters on the continent are located within Native communities.¹ A 2000 Environmental Protection Agency report revealed that two power plants and their coal mines in San Juan County, New Mexico released 13 million pounds of chemical toxins in the Four Corners area in one year alone.²

Evidence of human induced climate change is abundant. The earth's snow cover has decreased by 10 percent since the late 1960s; and since the 1990s, the thickness of arctic sea ice from late summer to early autumn has decreased by 40 percent. Ice melt has made sea levels rise—0.2 meters overall—resulting in an explosion of water- and airborne diseases. Moreover, insects that devour trees are now able to reproduce prolifically. At least 4.2 million acres of the Alaskan forest are dying off from the spruce beetle infestation, an insect that, due to the mild weather, is now able to “clutch” (i.e. lay eggs) twice during a year and has laid to waste a good portion of the spruce forests. New vector-borne diseases are also on the rise. The West Nile Virus is thriving and spreading along the East Coast and the Great Plains.

The potential impacts of climate change on our communities are far reaching. From the loss of habitat, to a rise in diseases, to the devastation of large areas of



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tion of biofuels, wind power, and solar energy, all growing at rates of 20–30 percent per year, compared with the growth rate of two percent for oil and gas. As a result of diminished supply and rising taxes on carbon dioxide emissions, fossil fuels are about to hit a dead end. In contrast, renewable energy presents an economic, as well as ecological opportunity for Native nations.

As energy producers, tribes can increase local employment, reduce the drain of resources from tribal economies, and generate exports to the largest energy market in the world—the U.S

Rosebud Sioux Tribe

In 2003, the first Native-owned utility-scale wind turbine was installed on the Rosebud Sioux Indian

Reservation. Using a combination of federal funding, loans, and the sale of green tags, the tribe secured funding for the turbine which will provide power to the Rosebud Casino and motel. The turbine is expected to supply an annual average of 80 percent of the electrical needs of the casino and motel.

Graphic:
Camille LaCapa
Courtesy of Honor
the Earth

land, climate change is literally transforming our ways of living. For example, according to Robert Gough, attorney for the Rosebud Sioux tribe, “The Intergovernmental Panel on Climate Change has found that global warming will likely cause collapses of some fisheries and expansions of others. This impact will involve territorial shifts of fishery stock and may bring about changes in present species. The level of impact will vary widely, depending upon the nature and complexity of each ecosystem ...”³

Native communities depend on marine fisheries for subsistence use and for commercial and tourist industries. Many of these fisheries rely on spawning grounds located in the Pacific Northwest, the Rocky Mountains, the Great Plains, the Great Lakes, the Eastern Seaboard, and along the Gulf Coast. Tribal communities are consequently concerned about the combined and simultaneous effect of climate change and over-fishing. Climate changes can exacerbate the effects of over-fishing at a time of inherent instability in world fisheries.

Indigenous Peoples on a worldwide scale have been quite concerned about these impacts. The Native Peoples/Native Homelands Climate Change Workshop (1998) and the Second Indigenous Peoples Forum on Climate Change (2000), led to international dialogue on the issue. The Indigenous representatives were unanimous in their recommendations contained in the Hague Declaration. The series of procedural and substantive recommendations include:

- Full participation in negotiations related to climate change, and decision-making with relevance to Indigenous Peoples;
- Restoration of habitat previously devastated by

national and international development;
 Creation of a fund to deal with climate impacts in accordance with traditional cultures and lifestyles;
 Increased application of renewable energy technologies in the developed and developing worlds. The Intertribal Council On Utility Policy (Intertribal COUP) is taking the lead and plans to challenge the Bush administration on global climate change.

By not signing the Kyoto Protocol, the U.S. created a huge deficit in the international goal for decreased carbon emissions. “Tribal wind energy production could entirely enable the U.S. to reach the levels expected in the Kyoto Accords, and tribes could just do it,” suggests Gough.⁴ Intertribal COUP is soon launching a “March Forth!” Initiative aimed at matching volunteer reductions in Kyoto Protocol by cities, with renewable energy producing tribes.

Energy: Problems and Solutions

“Energy is the biggest business in the world; there just isn’t any other industry that begins to compare,”⁵ says Lee Raymond, Chairman of the Board and CEO of ExxonMobil, the largest oil company in the world.⁶ Energy is, indeed, an immense business. Turnover in the world’s energy markets is at a whopping \$1.7 trillion a year. This number will only continue to grow as more and more countries and communities become electrified (one-third of the world’s population is currently without electricity).

The potential for renewable energy in Indian country is now well understood. In the summer of 2000, Energy Secretary Bill Richardson announced the release of a new report on Indian Energy

White Earth Anishinaabe Nation

The tribal council, in collaboration with a local community group, developed and released a tribal energy plan based on local renewable resources and energy efficiency. The tribal energy plan accentuates building a local self-reliant tribal economy and creating an export economy for the reservation and the region. It includes a wind project

and the creative use of waste oil for vehicles.

Hopi Tribal Council

The goal of the Hopi Wind Turbine Assessment Project is to determine whether or not wind power is a viable alternative to provide electricity to Hopi villages. In partnership with the Department of Engineering at Arizona

State University, the tribe erected an anemometer and will monitor wind speed and direction for the period of one year.

Chickaloon Native Village

In 2004, the village installed a 2200 watt solar photovoltaic dual-axis tracking system that will follow the sun throughout the day to maximize



Consumption and Renewable Energy Development Potential on Indian lands. The study noted that “sixty-one Indian reservations appear to have renewable resources that might be developed for power generation at a cost of less than two cents per kilowatt-hours above regional wholesale prices.”⁷ In other words, cleaner renewable energy resources might prove more lucrative for Indian Country than the non-renewable sources that presently dominate tribal economies.

Tribes have historically played a large role in the “big business” of U.S. energy production. In fact, even a conservative estimate will find at least 10 percent of the U.S. energy market and its reserves dependant on tribal resources. Therefore, even if the U.S. energy market is valued at \$280 billion (a highly conservative estimate), then at least \$28 billion should be going to tribes. Yet, in 2000, tribes received only \$750 million for their resources—far below the market value.

By the same token, however, the U.S. energy industry has played a major role within tribal relations. Although tribes have generally received a pittance in return for their resources, this still represents a significant portion of tribal treasuries. For instance, the Navajo Nation received the majority of its annual \$100 million operating budget from royalties, leases, and taxes generated from coal, oil, and gas in the year 2000. Those revenues provided for basic infrastructure and the salaries of the entire tribal government employees and officials.⁸ Indian Country relies on energy revenues for many of its basic needs. This has often come at the expense of the health of the land and the people, but there is potential for these revenues to continue and in a way that is healthier for tribal communities.

Wind Solutions

Wind energy is now the fastest-growing renewable energy source across the country. There was 35

Installing solar panels, Navajo Reservation, Arizona. Photo: courtesy of Native American Photovoltaics.

energy production. The solar panels will power the tribal school and central offices in order to reduce not only electric bills but also the tribe’s use of fossil fuels. The system will be integrated into the tribal school’s math and computer science curricula.

Navajo Nation

Joining forces with Sacred Power, a

local Native-owned renewable energy corporation, three chapters of the Navajo Nation utilized nearly \$2 million in grants from the U.S. Department of Agriculture, to provide electricity to rural homes too far away from the electrical grid. Over 150 homes on the reservation received solar panels and energy efficient appliances.

Little Traverse Bay Bands of Odawa Indians and Lac Courte Oreilles Band of Lake Superior Chippewa Indians

In 2005, these tribes volunteered to meet the Kyoto Protocol, an international agreement aimed at reducing greenhouse gases. Frank Ettawageshik, Tribal Chairman at Little Traverse said,

percent more wind generation capacity in 1998 than in 1997, or enough to power more than one million households in the U.S. alone.⁹ Attorney Gough says it all, when he says, "We can either give you coal, or we can give you wind."¹⁰ We stand on the cusp of something important. It is our choice to determine the legacy we leave for future generations.

Alternative energy represents an incredible social and political reconstruction opportunity and one that has the potential for peace, justice, equity, and some recovery of our national dignity. Renewable energy makes economic sense.

The European Union estimates that there will be 2.77 jobs in wind for every megawatt produced, 7.24 jobs per megawatt in solar, and 5.67 jobs per megawatt in geothermal. Or, in short, 1000 megawatts of alternative energy power averages 6000 jobs, or 60 times more high paying jobs than in fossil fuels and nuclear power. It is our choice. We can either create jobs and economic stability in Indian Country, or we can continue to line the pockets of utilities and energy companies.

Some of us believe that instead of nuclear waste going to Yucca Mountain, there should be solar panels. And we know that the wind blows endlessly on Pine Ridge, where we believe that, in the poorest

county in the country, there should be wind turbines. We must be about democracy and about justice. We must put the power back into the hands of the people where it truly belongs.

Excerpted from *Indigenous Peoples Power and Politics, A renewable Future for the Seventh Generation*, an Honor the Earth Publication. Order copies online at: www.honorearth.org.

Endnotes

- 1 Of the top 11 emitters of air pollution in New Mexico, most are on or near the reservation: Four Corners Power Plant (Arizona Public Service Company), San Juan Generating Station, BHP San Juan Coal Mine, BHP Navajo Coal Mine, Giant Refining, Ciniza Refinery, and San Juan Refining Company. (http://dinecare.indigenousnative.org/4_corners_toxins.html).
- 2 Norrell, Indian Country Today, "Four Corners power plant," 2000.
- 3 Gough, Robert. "Stress on Stress: Global Warming and Aquatic Resource Depletion." *Native Americas*. 16, nos. 3 & 4 (1999): 46-48.
- 4 Robert Gough, Personal Interview with Winona LaDuke, February 5, 2002.
- 5 *The Economist*, 10 February, 2001
- 6 "The World's 100 Largest Public Companies," *The Wall Street Journal*, 22 September, 2003, R9.
- 7 Brenda Norrell, "Four Corners Power Plant Fouling Navajo Air," *Indian Country Today*, 14 June, 2000.
- 8 Gough, Interview, February 5, 2002.
- 9 www.certreearth.com
- 10 American Wind Energy Association, www.awea.org

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"We feel good to be doing something for the future generations." Both communities also pledged to obtain a portion of their electrical needs from renewable sources such as wind and solar power.

Turtle Mountain Community College

TMCC is expected to be the first "off-grid" college campus. Using a

combination of geothermal and wind energy, the college has a renewable heating and cooling system and is powering 25 classrooms, administration offices, a gymnasium, and auditorium. A 660kW wind turbine will extend these services and will contribute income to the college when they sell excess electricity to the local utility.

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& the Race, Poverty Environment

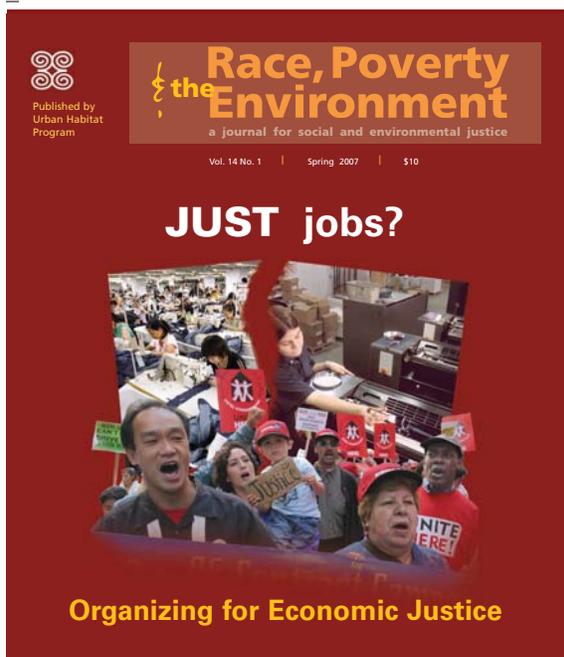
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