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For people who care about the West

Walking on a Wire

WESTERN ROUNDUP - June 9, 2008 *by Judith Lewis*

Electric transmission lines near Richvale, California. DAVID R. FRAZIER/DANITA DELIMONT AGENCY /DRR.NET

Los Angeles needs green power. Does it have to tear up the desert to get it?

One hundred and fifty miles east of the city of Los Angeles, the Mojave and Colorado deserts converge in towering granite rock formations and strange succulent plants -- Joshua trees raising their arms to heaven like ancient prophets. From Interstate 10, everything looks brown and barren, but oases of spring-fed green hide a little ways in, with just enough water to sustain several hundred species of birds, lizards, bugs, bobcats, desert tortoise and a ragged herd of peninsular bighorn sheep.

Austin Puglisi had planned to build his dream home here. Not your typical desert dream home, the one with the high fence to protect it from wind and the irrigated lawn to mimic the lush Midwest. Puglisi wanted to build a tiny shack and set the rest of his 54-acre parcel aside for wildlife. He would use only local water and recycle it into the aquifer. He would get off the grid and live far from its influence. So it came as a shock, one day last winter, when Puglisi discovered that the grid was coming to him.

On federal land just a few yards from the boundary of his property, Puglisi spotted a bright orange stake marking the spot where a metal disk had been anchored in the ground with concrete. Engraved on the disk were the words, "Los Angeles Department of Water and Power."

"From what I could tell," says the 47-year-old Puglisi, "it looked like some kind of utility project was either going right through my land or on the ridge right above it."

Puglisi was flabbergasted. "We had just secured our building permit," he says. "We had put in our solar-powered well. Now it looks like we have to put the whole thing on hold."

His neighbors were finding similar clues in other places. Unfamiliar trucks were lumbering across the Kickapoo Trail through the Big Morongo Canyon Preserve; helicopters were landing on the boundaries of birdwatchers' desert hideaways. The men who emerged from the trucks and helicopters cheerfully identified themselves as surveyors for the Los Angeles Department of Water and Power, and handed out

fliers detailing plans for their brand-new renewable electricity transmission project, the Green Path North.

In some circles, this was awfully good news. The LADWP had begun planning the Green Path North three years ago, in part to access carbon-free, always-on power from geothermal fields in the Imperial Valley near the Salton Sea, 180 miles away. The utility appeared to be moving ahead aggressively on renewable-energy transmission -- and that meant it might soon deliver on its long-stalled promise to bring green power to its 4 million customers, who currently rely on coal burned out of state for close to half their electricity.

"The LADWP wants to be a leader in the field of renewable energy," affirmed the utility's new general manager and CEO, H. David Nahai, shortly after he moved from the utility's board of commissioners to its executive branch in December. And a significant piece of that effort, he said, will be "building the transmission to bring it home."

But for Puglisi, who also volunteers with several desert conservancies, the markers signaled a new threat to a landscape that local environmentalists had long worked to preserve. Small nonprofits like The Wildlands Conservancy and the Mojave Desert Land Trust have spent years cobbling together private and public funds to buy up hundreds of thousands of acres of the Mojave, preserving them for marginal species like the fringe-toed lizard and the endangered peninsular bighorn sheep. If the survey markers indicated anything, it was that 85 miles of 160-foot-tall steel towers, occupying a footprint 330 feet wide and buzzing with 500 kilovolt wires, would soon be cutting across the path those sheep use to get to their only source of summer water.

Worried calls to the utility invariably met with the same response: No route had been decided upon, and any discussion with the community over the transmission project would be premature. The utility confirms only that the Green Path North has to extend south from the desert town of Hesperia to a substation near Palm Springs, where it will link up with existing transmission to the Salton Sea and Arizona's Palo Verde nuclear plant. It could do that via any of six different routes, including one down the Interstate 10 freeway corridor, which would expand a right of way owned by another California utility, Southern California Edison, and require the condemnation of 3,500 properties.

H. David Nahai says the Los Angeles Department of Water and Power "agonize (s) all the time" about the effects of new transmission lines through the desert.
KEVIN SCANLON

By the time of Puglisi's discovery in late 2007, however, the LADWP had already submitted an application to the Bureau of Land Management for a right of way following the markers through the Big Morongo Preserve. A few months later, it petitioned the federal Department of Energy to include that route in the West-Wide Energy Corridor (WWEC), a process set forth by Congress in the Energy Policy Act of 2005 to fold hundreds of energy-transportation projects into a single environmental review. The way it looked to Puglisi, the L.A. Department of Water and Power -- the same agency that 85 years ago built an aqueduct to suck the Owens River Valley dry -- was setting up for another desert land grab. "Los Angeles," Puglisi observes, "doesn't give out very much information."

More to the point, Los Angeles is in a hurry. The city needs to meet the renewable energy goals imposed by its green-minded mayor, Antonio Villaraigosa, who wants 20 percent of the city's power to come from renewable sources by 2010, and 35 percent by 2020. And it also has to catch up with the rest of California. None of the state's other utilities, from the investor-owned Southern California Edison to the public Sacramento Municipal Utility District, emit anywhere near the 13 million metric tons of carbon dioxide that LADWP does every year. And while the public utility was previously exempt from a state anti-global warming law, it may soon be subject to a statewide cap-and-trade system taxing all greenhouse gas emitters, public and private.

So the LADWP, which currently derives only eight percent of its energy from renewable sources -- up from three percent in 2006 -- has had to scramble to find green power. And the Mojave has long been a natural place to look.

"The wasteland of the desert is the goldmine of our future energy needs," writes the octogenarian energy expert S. David Freeman in his book, *Winning Our Energy Independence*. Freeman, who helped guide energy policy under both the Nixon and Carter administrations, ran the L.A. Department of Water and Power from 1997 to 2001. He wears cowboy hats and speaks in a Tennessean's exaggerated drawl, and retains an environmental hero's glow in Southern California, where he's now busily greening the city's soot-choked port.

The 55-year-old Nahai, by contrast, ran his own private real estate law firm before coming to the utility. He wears elegantly cut suits and delivers his words in a refined, British-inflected English. But in all the important ways, he is Freeman's philosophical heir: Next to the challenge of weaning his city off coal, all other concerns pale.

"The effects on the environment and the repercussions (of transmission) -- we agonize over it all the time," Nahai says. "But I remain convinced that those Salton Sea resources are the only fuel to replace coal. And it is in the best interest of the state and all of its citizens that we access them."

A year ago, Nahai described this as acting on behalf of the "greater good." The wording was unfortunate, echoing as it did the same utilitarian principle -- the greatest good for the greatest number -- Franklin D. Roosevelt used to justify the Owens Valley water deal. Desert residents seized on it. "Whose 'greater good'

are we talking about?" gripes April Sall, who manages two preserves in the Mojave for The Wildlands Conservancy. "What about the greater good of future generations who won't have this land to enjoy?"

A serious 28-year-old with a blond ponytail and a rosy tan, Sall is a third-generation citizen of this desert. Her family has lived here since her grandmother came out as a young single woman in the 1920s and built her own house in the rocks. Sall left the area to earn a biology degree at Humboldt State University, but later returned, determined to defend her home. "There was a lot of great conservation going on up on the North Coast with the Redwoods," she says. "There were not as many people working to save the desert."

Sall and her allies find many parallels between the Los Angeles Aqueduct and the Green Path North. In 1906, William Mulholland inveigled Gifford Pinchot into declaring the Owens Valley federal forest so the city wouldn't have to buy off private landowners; now the LADWP has asked the federal government to classify its preferred route as a federal energy corridor. Congress granted a right of way for the Los Angeles aqueduct only after the city promised it would use the water solely for non-industrial purposes; the LADWP hopes to smooth the way for its transmission line by dedicating it only to green power.

In the path of powerlines?
An endangered desert tortoise.
PHOTO COURTESY
DONNA THOMAS,
CALIFORNIA DESERT COALITION

"The general sentiment that we're finding as desert residents and biologists is that Los Angeles thinks the desert is a place to dump things," says Sall. "First it's their trash, then their nuclear waste. Now it's their energy projects."

Almost since George Westinghouse built an 11,000-volt power line to transport electricity 20 miles from Niagara Falls to Buffalo, N.Y., the transmission of electrical power has stirred up trouble. Cities go dark when there isn't enough of it; expensive wind projects go underused because no one can agree on who will front the money for the power lines. Because there's a financial incentive for utilities to own transmission -- it means they don't have to pay "wheeling fees" to use another company's lines -- sometimes more transmission gets built than anyone really needs. Most of the time, however, energy companies complain that energy is like food: There's plenty to go around, and no one would starve if only the distribution were better.

It was with that complaint in mind that Congress in 2005 designated routes through federal lands in 11 Western states, plus more potential transmission through private land in the Southwest and Northeast. If local and state governments attempt to block these corridors, the Federal Energy Regulatory Commission

can step in after a year and, under the provisions of the energy bill, push the projects through. Consequently, the protests of the Mojave activists are being echoed throughout the West. The sweeping environmental impact report for the West-Wide Energy Corridor designates more than 6,000 miles of corridors -- and completing them will require rezoning some 165 wilderness areas.

The Southern Utah Wilderness Alliance is fighting a transmission corridor that will plow a route along Utah's Moab Rim. In Oregon, conservation groups oppose a proposed gas line that would bore under rivers in the Mount Hood National Forest. According to the map of proposed transmission routes issued by the Department of Energy, the state of Nevada could be divided up like a quilt to transport energy straight through the Desert National Wildlife Complex. "No opening of any wilderness areas in this state to any energy corridors ever," Bill Huggins of Friends of the Nevada Wilderness told the Department of Energy at a public meeting in Las Vegas. "Absolutely not."

"It's hard to see which Western constituency could possibly support this," said Amy Atwood, a staff attorney with the Center for Biological Diversity, at meeting in Portland, Ore. "But the answer, of course, is that the constituency that supports this doesn't live in the West. It lives on Wall Street and in D.C., and it is attempting, essentially ... to sell off as much of our public lands as possible for energy development before public outcry rises to the degree that such policy choices will no longer be tolerated."

Some of these battles have clearer lines than others. An energy corridor devoted to bringing more oil out of Utah likely serves no environmental agenda. Come out against a project that brings wind energy down from Wyoming, however, or moves electricity from large-scale solar installations to coal-dependent cities, and you come out against polar bears and in favor of cataclysmic drought, all to prevent a localized disturbance in your backyard. No matter how pristine that backyard, or how many rare species it contains, saving it can't possibly trump saving the coasts from rising seas.

All this has inspired some California leaders to suggest that only conservationists now stand in the way of renewable energy. In an April 18 speech at Yale University's Climate Change Conference, California Gov. Arnold Schwarzenegger announced that "the Germans, the French, the Canadians, the Japanese, they all want to come out to California and put solar power plants in the Mojave desert and in other places. The only thing is that the problem is getting that new energy to the power grid because of environmental hurdles."

"I think Gov. Schwarzenegger so wants to see progress that he's becoming impatient," says Carl Zichella, the Sierra Club's regional staff director for Southern California. "I share the governor's impatience, but we're working as fast as we can." Moving large utilities off coal and onto renewables, he says, "is a little like turning the Exxon Valdez around."

An LADWP survey stake in Big Morongo. PHOTO COURTESY DONNA THOMAS, CALIFORNIA DESERT COALITION

For the past year, Zichella has been part of the Renewable Energy Transmission Initiative (RETI), a statewide consortium of energy companies, land-management agencies and environmental groups devoted to solving the myriad problems associated with bringing carbon-free power to market. He's also participating in the Western Governors' Association's Western Renewable Energy Zones project, which had its kickoff meeting May 28 in Salt Lake City. The WGA foresees adding 30,000 megawatts of "new clean and diverse energy" to the Western states' grid by 2015.

"Avoiding protected areas of the desert is going to be a neat trick," Zichella says, "but that doesn't mean it can't be done. The thing people have to keep in the back of their minds is that FERC has the authority to build lines. That makes it incumbent upon us to make sure those lines are dedicated to renewable energy, and that we're not facilitating the development of coal."

Zichella is reserving judgment on the Green Path North until the L.A. Department of Water and Power officially announces a route, hoping the utility will choose to work with Southern California Edison to share a right of way along the freeway corridor. He is less diplomatic, however, about another proposed transmission line to the south, San Diego Gas & Electric's Sunrise Powerlink. "The Sunrise Powerlink is an example of a project that has been jammed through without public support or environmental safeguards," Zichella says. "It would be a mistake to allow it to be built."

Like the Green Path North, the $1.5 billion, 150-mile Sunrise Powerlink has been pitched as a way of transporting geothermal from the Salton Sea and solar power from large-scale projects the desert. Its preferred route also cuts through pristine bighorn sheep habitat, in California's much-beloved Anza Borrego State Park. A report issued in January by the California Public Utilities Commission flatly concludes that the investor-owned SDG&E's preferred route for the Sunrise Powerlink would devastate the wilderness. The report goes on to recommend several alternatives, including upgrading existing transmission lines that the California Independent System Operator has declared critically congested.

Schwarzenegger, however, likes the Sunrise Powerlink just fine -- and not, his office says, just because the San Diego utility's parent corporation, Sempra Energy, donated $25,000 to his inaugural committee. (Shortly after he announced his support for the Powerlink, Sempra poured another $50,000 into a redistricting effort the governor wants on the next state ballot.) The environmentalists, he told the Yale audience, are engaging in a "kind of a schizophrenic behavior. They say that we want renewable energy but we don't want you to put it anywhere."

David Hogan of the Center for Biological Diversity says that it's not that simple. He doubts whether the Sunrise Powerlink will carry as much renewable energy as it does natural gas-fired power from a plant Sempra recently acquired in northern Mexico. "Sempra has invested billions in a liquefied natural gas facility in Baja," he says, "and they need a way to get that to market. That's what the Sunrise Powerlink is for."

Other Powerlink opponents doubt the viability of the Salton Sea fields, claiming that the utilities have an inflated sense of how much power lies waiting there or how much can be harnessed without draining half the sea. But a seismic survey commissioned by CalEnergy, which already operates a 340 megawatt operation at the site, shows that the Salton Sea geothermal fields (SSGF) may be hotter and deeper than anyone guessed, with enough steamy brine to spin out 2,330 megawatts for more than 30 years and power more than 2 million homes.

"We think it's the largest geothermal field in the planet," says CalEnergy's vice president, Vince Signorotti. And while CalEnergy has not taken an official position on either the Green Path North or the Sunrise Powerlink, Signorotti does have an opinion about transmission in general. "I think what we need to do as a state is take a step back and look at what's happened in the last 30 years. Have we kept pace with the development of new transmission? The answer is clearly no. And that's irresponsible."

Early on, when LADWP's survey markers started to appear in nature preserves and on private property, a group of desert activists calling themselves the California Desert Coalition set out to document them using GPS coordinates. Two of those activists, Ruth Rieman and Donna Thomas, led residents and journalists on regular visits to the sites, to show off not only the markers but the area's dramatic mesquite-covered washes, thousand-foot bluffs and, this spring, its wildflowers. But when the two women hiked out to the Big Morongo preserve in April, they found that all the survey markers had disappeared. Only mounds of disturbed soil remained.

April Sall is interviewed while California Desert Coalition members protest the Green Path North Route in January. PHOTO COURTESY DONNA THOMAS, CALIFORNIA DESERT COALITION

"They didn't brush out their tracks," Rieman muttered disapprovingly.

"I ordered all of those markers taken out," Nahai says. "I wrote personal letters to all of the property owners that were affected to explain that the markers were being removed, and that they were not intended to indicate a decided pathway. We're going to have a very open and visible process before deciding on a route."

The move was intended, he adds, "to alleviate anxiety." Instead, it seemed only to compound suspicions.

"There's no question there's an urgency about the greenhouse gas situation and the need for California to make a statement. It's a question of how they do it, and the process they take to arrive at it," says Joan Taylor, chair of the energy committee for the Sierra Club's desert chapter. "Trespassing on land and putting monuments in and building brand-new transmission corridors through ecologically sensitive areas, and then lying about it -- that just isn't a good way to start."

Nahai, who takes pride in his environmental credibility -- he's a father of three who often invokes his children's future when making his case for the planet -- appears pained by the controversy. He has served on the local water board, on the board of the League of Conservation Voters, and it was under his watch as commission chair that the LADWP finally made good on its agreement to return water to the Owens Valley ("There it is," he announced at the unveiling of the reverse-pumping project, "give it back," a magnanimous flip-flop of Mulholland's 1913 declaration, "There it is, take it.")

Nahai guarantees that the Green Path North will carry only carbon-free sources of electricity along its route. In late April, the LADWP inked an agreement with the Salton Sea-adjacent Imperial Irrigation District to begin work on its first 200-megawatt plant. It seems unlikely that the utility will cave to the Mojave conservationists' demands.

It comes down to this, Nahai says: "What is it that we're going to do as a state and a society? If we have announced to the world, as we have, that we're going to foster and support renewable energy, that we're going to open our doors to the renewables industry, then we have got to live up to our promises."

And besides, as Schwarzenegger remarked in his Yale speech, "If you can't put solar panels in the Mojave Desert, where the hell can you put them?"

"How about on the rooftops and parking lots of the cities that actually use the power?" suggests Taylor. "If you're worried about energy security, generate it where it's used." She points to Southern California Edison's rooftop solar effort, launched April 2, to put a total of two square miles of photovoltaic panels atop warehouses in the inland counties of San Bernardino and Riverside. In five years, the $875 million project will generate 225 megawatts of electricity at peak hours, enough to serve 162,000 homes.

Yet even that kind of massive solar project only nicks away at the needs of coal-fired Los Angeles, which in the summer of 2006 hit a peak load exceeding 6,000 megawatts. LADWP will spend $300 million over the next 10 years to install 280 megawatts of locally generated power. It broke ground in March on the

Pine Tree Wind Farm in the Mojave's Jawbone Canyon, a project that the Audubon Society fought bitterly; it will soon be the largest municipally owned wind project in the nation. The city has passed a green building ordinance requiring a 20 percent increase in energy efficiency for all new construction. But to meet its 35 percent by 2020 goal, Nahai says, it still needs transmission to the Salton Sea.

Vince Signorotti agrees. "I don't believe any of the (utilities) are going to get to their magic number without the Salton Sea being developed," he says. "It's just an incredibly important resource."