

# RENEWABLE ENERGY CATCHES ON IN RED AMERICA (A POST-PARTISAN LOVE STORY)

KERN COUNTY, CALIFORNIA, WENT **REPUBLICAN** BY 18 POINTS IN THE LAST ELECTION. NOW IT'S CAPTIVATED BY **WIND AND SOLAR** POWER. HERE'S WHY.

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BY MICHAEL BEHAR

**IN A CRISP, CLOUDLESS MORNING IN NOVEMBER 2002, SUSAN** Hansen stood atop California's Cache Peak clutching a satchel containing the ashes of her husband, Homer. Susan, now 75, had reached the summit on a rock-strewn trail, climbing for an hour through scrub oak, bull pine, and juniper. The 6,676-foot-high Cache Peak, which protrudes from the Tehachapi Range about 40 miles east of Bakersfield, is situated almost wholly within the Hansen ranch.

Susan's in-laws are also buried on the mountain. In 1946 they purchased the property—more than 50 square miles—from the Southern Pacific Railroad. "The first one up was my father-in-law," Susan tells me when I visit her in December. "It took 12 people to carry his casket to the top, and we had to dynamite a hole in the rock for the grave." After that fiasco, the family decided cremation would be easier. Once her in-laws had passed away, the Hansens divided up the property and sold their shares, except for Susan and Homer, who kept an 11,000-acre plot. There they started a cow-calf operation that at its peak had 1,000 head of cattle.

Susan recounts the story as we stand on a natural terrace below Cache Peak in Jawbone Canyon, an arid moonscape at the eastern edge of Kern County. With one notable difference, the clear and cool weather is identical to what it was on the day she scaled the peak to scatter her husband's ashes. "Normally it's windy, very windy," she says. Hot updrafts rising from the sun-baked Mojave Desert create

**MASTER PLANNER**  
Lorelei Oviatt sees this hillside in Kern County's Tehachapi Range as a great example of a profitable wind farm.

PHOTOGRAPHS BY AMANDA FRIEDMAN



low pressure at the surface, which sucks in cold, dense air from the Pacific Ocean to fill the void. This thermal effect is one of the most ferocious wind machines on earth.

"In the 1980s, our interest rates went to 24 percent and the bank started looking [to foreclose on] our land," Susan recalls. "So my husband started searching for ways to make the property earn its keep, and that's when he taught himself about wind power." There were lots of ups and downs along the way—inadequate transmission lines, a burst of new deals with the dot-com boom, another slowdown when that bubble burst—but eventually Homer forged a partnership with a company called Zilkha (now Horizon Wind Energy). "He signed the option three days before he died," she says. The Los Angeles Department of Water & Power later took over the lease and the project went online last year with 80 turbines, each generating 1.5 megawatts of electricity.

I first heard about the Hansen ranch from Lorelei Oviatt, the special projects division chief for the Kern County planning department. At 8,202 square miles, Kern, with a population of 800,458, is roughly the size of New Jersey and encompasses several disparate

ecosystems—the Central Valley, Sierra Nevada, and Mojave Desert. Oviatt wanted me to see firsthand one of her county's celebrated successes: a 120-megawatt wind farm that enriched its landowner (Susan won't say exactly how much she earns but made it clear that her family would never have to worry about money) while helping bring new jobs to a region that has a 15.1 percent unemployment rate. Oil, agriculture, and aerospace have been the economic mainstays in Kern for nearly a century. Petroleum still chugs along. But cheap imported produce has decimated local agriculture; severe water shortages are shuttering what farms remain; the once-thriving

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dairy industry struggles to profit; and the military is downsizing (the advanced F-22 and F-35 fighters are tested at China Lake Naval Air Weapons Station and Edwards Air Force Base, both of which spill into the county, but President Obama has slashed these programs).

To combat the downturn, Oviatt has been on a mission to attract renewable investment and transform Kern into what she calls "ground zero" for green energy. Doing so means fostering alliances between competing interests, and this, she admits, can be a nightmare. While the Hansen project was being put together, environmentalists complained it would disrupt wildlife habitats, specifically those of the Mojave ground squirrel and the desert tortoise. Indians feared desecration of sacred burial sites. Neighbors complained that the soaring towers would spoil alpine views. The U.S. Department of Defense claimed that the turbines would be a hazard to pilots who fly supersonic maneuvers in the area, often at near-ground level. The "bird people," as Susan calls them, filed suit, arguing that spinning rotor blades are an avian hazard. One of their concerns was that the Sierra Nevada transects a major flyway, so turbines pose a threat to migratory species. Another concern is the endangered California condor, although Oviatt says no report exists of the condor ever being killed or maimed by a wind turbine.

Oviatt ultimately got the project approved. But if you think she did it to save the planet, you'd be only partly correct. She concedes that promoting green power is terrific, and AB-32, California's aggressive legislation to curb greenhouse gas emissions, is fueling frenzied interest in wind and solar. But she considers her pursuit of renewable energy a civic duty to help Kern prosper in the long term. "This is a red, conservative-based county," she says. "We are not Berkeley. We are embracing renewables because they're practical." What is essential to Oviatt—and to her bosses, the five elected members of the county board of supervisors—is that renewable energy investments create jobs and boost tax revenue. If the icing is green, she says, well, all the better.

Despite Kern's political conservatism, county planners have largely escaped a knee-jerk backlash against anything green by pushing for projects on private property rather than on public lands. Where landowners have raised objections, they tend to be very specific and are usually couched in terms of qualified support. ("Look, don't get me wrong here—I think this is a good thing; I'm just worried that...")

In Kern, as elsewhere in the United States, most wind and so-

### NRDC: FINDING THE RIGHT PLACE

#### JOHANNA WALD IS A SENIOR ATTORNEY IN NRDC'S SAN FRANCISCO OFFICE AND AN EXPERT ON THE USE OF PUBLIC LANDS.

#### THE OBAMA ADMINISTRATION IS COMMITTED TO LARGE-SCALE RENEWABLE ENERGY PROJECTS. BUT THIS RAISES A FUNDAMENTAL QUESTION: WHERE WILL THEY GO?

Like any large energy project, they will have significant impacts. Utility-scale solar projects typically require thousands of acres of land, which is frequently graded and denuded of vegetation. Once these plants are built, electricity generation will be the sole use of the land—and they will be there for a very long time. Wildlife habitat will be gone, and so will the values of open space and wildness. In addition, depending on the technology and the location, solar projects can use a lot of water, a very limited and precious resource in the West. They will also require major new transmission lines that will cross public lands.

#### YET NRDC IS BROADLY SUPPORTIVE OF SUCH PROJECTS.

If we're going to meet the climate challenge, we will need at least some of these large-scale projects in addition to energy efficiency and conservation measures. We also need smaller "distributed generation" at the level of individual rooftops and mid-size projects where the energy is purchased by utilities. But of course all these projects must be sited carefully, and none should be located in places with unique or sensitive resources.

For more about debates among environmentalists on the siting of renewable energy projects, visit [onearth.org/article/waldqa](http://onearth.org/article/waldqa)

lar resources are located in rural areas, where landowners frequently lean right. Targeting private property, Oviatt says, is an easier sell. Energy projects almost always raise land values and therefore generate more property tax revenue. The developer covers the increased taxes for the landowners and pays them annual royalties based on how much energy their properties produce. Some landowners also get signing bonuses, leasing income, or one-time cash settlements if they sell their property outright. At the same time, the projects don't rile those who covet public lands—not just conservationists, but also hunters, anglers, off-roaders, and mining and military interests. “Here, if you put an environmentalist label on something,” says Oviatt, “you can actually damage the idea.”

**FORECAST: SUNSHINE**  
Developer Jeff Roberts hopes that this unproductive farmland will be the future home of one of the world's biggest solar energy plants.



**IT'S A FEW MINUTES BEFORE 7 A.M. IN DOWNTOWN** Bakersfield, and the public services building seems deserted. I apologize to the security guard for being early and explain that I'm waiting for Oviatt to arrive. “Oh, she's already in her office,” the guard informs me. “She's always the first one here.” (This is impressive, considering that Oviatt commutes 75 miles each way from her home in Rosamond.)

Oviatt appears with a big, toothy grin from around a corner and flitters across the tiled floor. She is wearing a scarlet blazer adorned with an intricate gold poinsettia brooch, black blouse and skirt, and silver-framed glasses. “I'm glad you could come now,” she says, “because we have back-to-back holiday parties all day, and then I'm going caroling.” Though she's been with the county for 13 years, her office appears as though she's still moving in (or out). Transparent plastic storage containers, stacked three high and two rows deep, are shoved against the walls. “Those are projects awaiting approval,” she explains.

Oviatt, a native of South Florida, attended Baldwin-Wallace College, a small liberal arts school in Berea, Ohio, earning a bachelor's degree in philosophy and sociology. Her first job was for a manufacturing company buying up warehouse space in Los Angeles; later she worked for a housing developer. “I have a very unusual background for government,” she says. “Most people go into it straight from school. People of my generation have been here 30 years and are already retiring.” But

Oviatt got her master's in public administration just three years ago, taking night courses at California State University in Bakersfield. “I was going to go into academics,” she says. “But I realized what I truly enjoyed was figuring out how we make decisions in society, how people come to an agreement in this messy business we call democracy.”

Most planners enter the profession because they are “fascinated by the future,” Oviatt says. “They lose that fascination when they get beaten down by reality. But I am an idealist—that's why I get up in the morning—and I tell younger planners never to doubt someone's dream, even if it sounds fanciful.” To underscore her point, she tells me about the time

she put together the permit application for the Mojave Air & Space Port. “When they first came in and told me they wanted to create a space port, I thought, ‘Well, now I've heard it all.’ But then I said, ‘Okay, I'm game.’” The project won Oviatt a national award for planning design, and today the port has become a global hotbed for private space entrepreneurs. “I am a synthesizer,” she says, “and I try to stay head of the curve, always thinking about what kind of community we will have in 50 years if we make this or that decision today.”

At the moment, however, the focus of the nine-member special projects team she leads is to wade through an avalanche of applications for renewable energy projects. A critical component of the process is navigating the stringent conditions of the Californian Environmental Quality Act (CEQA). “On the one hand, we've had all these wonderful places saved [by CEQA],” says Oviatt. “On the other hand, our state is bankrupt and businesses are fleeing.” Not wanting this to happen in Kern, Oviatt studied CEQA until she could quote it from memory. Many say she's become the leading CEQA expert in the county, and in doing so has turned something that developers elsewhere in California have abhorred and feared into just another step toward getting their projects approved. “Her base knowledge of the CEQA process is huge,” says Linda Parker, executive director of the Kern Wind Energy Association. “But she goes further and tries to understand our industry, and understand everybody else's concerns. That's what unique about her. She has a 360-degree view.”

In addition to wind, solar power is another big priority. “I spend three days a week meeting with solar proponents,” Oviatt says. “There is a solar rush going on because of the money Washington

has put together in tax credits.” To qualify for the federal credit, a solar project has to be under construction by the end of 2010. Yet the flood of applications didn’t show up in Oviatt’s office until late 2009. “The industry is a little disorganized,” she complains. “They don’t understand that an environmental impact review [required by CEQA] takes up to 24 months.” Oviatt has met with more than 65 developers interested in new solar projects. But she didn’t want the tough environmental standards to scare off investors. “So we decided to do all the reviews simultaneously, rather than stacking people based on when their application came in. It’s a monumental task that I’m not sure we can pull off, but we’re going to try.”

To further speed things up, Oviatt steers solar firms away from public lands: “I tell them I’m not confident I can move it as fast because I have to coordinate with the [federal] Bureau of Land Management, which is already overwhelmed.” But there are multiple motives at play. “We believe the purpose of public land is the conservation of species,” she says. “Our board of supervisors doesn’t want to see the entire desert paved over with solar projects. Instead, our strategy is that we should use marginal private lands, lands that can’t be farmed and haven’t been turned into habitat. This is a way to recoup some use of the property without building a 5,000-unit subdivision on it. And if you use up all your public land for renewable energy, species conservation is going to move to private land, and then those private lands will be taken off the tax roll and unavailable for development.”

Jeff Roberts is a solar developer for a company called Granville Homes, which owns land in Kern County. He has applied for a permit to create a 6,000-acre photovoltaic installation in the southwest corner of the San Joaquin Valley. If completed, it would generate between 500 and 700 megawatts. This would make it one of the largest solar farms in the world, generating enough power for more than 100,000 homes. “We’ve scratched our heads about what to do with this land,” Roberts says. “We’ve had it for five years and never grown anything on it because there is no water. Kern County has been very aggressive to move us through the process. They’ve been very smart and up to speed, more so than other counties I’ve worked with.”

While Oviatt loves lucrative renewable projects, she also staunchly protects Kern’s long-established sources of revenue. She reminds me that oil is a \$10 billion industry in Kern County, which has more oil than any other in California, churning out one-tenth of all U.S. production from three of the five largest fields in the country. On the top shelf behind her desk is a sample of Kern crude encased in Lucite. She hands it to me to inspect. “We have a number of ordinances to protect oil. There are billions of gallons of oil underneath Los Angeles that can never be recovered because it’s been paved over. We haven’t done that here. You can drive into the parking lot of the Rosarito restaurant and there is an oil well, appropriately sited and pumping away.”

In Kern, oil is king, but the military is a hardy second. “The Department of Defense is a \$3 billion industry,” Oviatt says. “A few years ago, the wind industry wanted to build towers over 400 feet. So we said, ‘Time out.’ We didn’t want to permit a wind project that would

**TAKING OFF**  
A photovoltaic array sits near a runway at Bakersfield’s Meadows Field airport.



## THE LARGE-SCALE CAPITAL INVESTMENTS NEEDED FOR THIS INFRASTRUCTURE CAN’T BE UPROOTED IF THE BUSINESS CLIMATE SOURS

destroy a flight test corridor.” Her department uses a color-coded map system to aid wind developers in choosing appropriate sites. Within a red zone, the DOD has to sign off on any turbine more than 80 feet tall. Yellow areas can have towers up to 500 feet. Green means anything goes. When Governor Arnold Schwarzenegger’s office published a handbook on how to protect military interests that compete with other types of development, it identified the red/yellow/green system as an exceptional example of innovative planning policy. “It’s been nationally recognized by the Department of Defense,” says Oviatt. “We’ve also commented to the Department of the Interior, and they put provisions in their environmental impact studies for energy development to take the military into account.”

“In most jurisdictions, a developer rolls into town and takes out a big ol’ topo map and just goes out to get leases,” she says. “They never talk to the planners. I didn’t want that happening here. So now I spend a lot of time in pre-application meetings where I sit down with people and explain how the process works, and I tell them, ‘Follow these constraints and it’ll roll along much faster.’” Befuddling potential investors with a barrage of intractable and byzantine bureaucratic hurdles is counterproductive, she says. “We think of ourselves as facilitators, not regulators. The developers financing these projects want certainty—they want to know what the rules are—and they get pretty upset when they get a year into a project only to find out they picked the wrong piece of property.” The point is to attract wealth to Kern County, not repel it.

**W**HILE IN BAKERSFIELD, I ATTEND A COUNTY BOARD of supervisors meeting where Oviatt presents the members with a formal request to approve a 720-megawatt wind power project. It involves 17 landowners and 320 turbines, built on 9,300 acres at a cost of \$1 billion. It could net the county \$1 billion in revenue, 230 temporary construction jobs, and 30 permanent positions. The developer, Terra-Gen Power, is based in San Diego. Its vice president for lands and development, Ken Wagner, tells me, “From a regulatory side, Kern County has evolved quickly and is well suited for wind development, more so than other counties.”

The meeting begins promptly at 2 p.m. in the board chambers, a stately room paneled in cherrywood. Wagner, who has driven from San Diego to attend, takes a seat in the back row. The audience, about 90 people, is a mishmash that includes overalled ranchers, dark-suited investors, octogenarian landowners, reporters, engineers, and consultants.

Oviatt launches into a polished and highly orchestrated 45-minute presentation that she tells me later took her more than a year to prepare. On an overhead projector she unveils maps and diagrams and aerial photos. When she’s finished, a sundry parade of citizens approaches a central lectern to profess their support or voice their objections. When the detractors talk, Oviatt rummages frantically through file folders, yanking out various documents and transparencies. She is formulating her rebuttal. Several landowners who live near the proposed turbines fear that ice will form on the rotor blades and rain a lethal volley of frozen spears onto their property. A nervous mother says that sun glinting off spinning rotors creates a strobe effect that will be detrimental to her epileptic daughter. A retiree wants to know if the turbines will spook the jackrabbits he enjoys hunting. One couple asks if two towers can be relocated to preserve their backyard view; another pair is worried about noise pollution from humming turbine motors. And this drags on for hours.



Oviatt is cunning and whip smart, and to watch her in action is a lesson in tenacity. She politely but methodically addresses each concern with an arsenal of data—environmental reports, expert testimony, geologic surveys, wildlife habitat studies, even a last-minute stick-figure drawing she scribbles on a legal pad to illustrate the positioning of three towers under dispute. Not everybody is satisfied, and the board doesn’t want to steamroll its constituents. A recess is called, and Oviatt disappears, with posse in tow, to hash out a deal between contentious landowners and representatives from Terra-Gen.

An hour later she emerges with an agreement, and the board approves the project unanimously. Wagner is thrilled. “We should be able to begin construction in early 2010,” he says. Also pleased is Bruce Shafer, plant manager for CalPortland, which makes cement and construction materials. His company is the largest private landowner in the Terra-Gen project and will earn hefty royalties from the more than 150 turbines planned for its 5,500-acre property. And like the majority of these contracts, this one costs the landowner nothing.

The Terra-Gen agreement is just one of dozens Oviatt and her staff have helped craft since 2006, when she became chief of the special projects division. In the late 1980s, the county created a “wind energy zoning” (WEZ) ordinance to streamline the siting of turbines. Oviatt has learned to leverage the WEZ rules deftly. “Within the next 10 years we will see a 40 percent increase in installed wind power,” says Linda Parker. “We are going to go up to between 4,500 and 6,000 megawatts of capacity. New wind energy development is expected to be worth about \$4.5 billion, which will increase property tax assessments by over \$45 million. It’s like free money to the county.”

Until recently, wind energy investment in Kern was stagnant because its aging transmission lines were maxed out. But Kern’s special projects group worked with Southern California Edison to secure a \$2 billion upgrade to transmission infrastructure. By 2013 nearly 250 miles of new high-voltage lines will deliver electricity from wind farms in Kern County to three million homes in the Los Angeles basin.

**L**ORELEI EPITOMIZES THE KIND OF PERSON WE’RE GOING to depend on to make the transition from oil to renewables,” says Johanna Wald, a senior attorney at the Natural Resources Defense Council. Wald is impressed by how Oviatt “innovatively encourages the use of private lands, going to degraded properties that have a lower habitat value and are close to the transmission infrastructure.”

“For me it’s all about the big picture—it’s jobs for solar installers, jobs for energy efficiency,” Oviatt says. And jobs for oil, too. During my conversations with her, I repeatedly try to peg Oviatt as an environmentalist on a mission to green her county, but she won’t have it: “Sure, it’s true we want to lessen our effect on the planet. I hate plastic bags, and if I can’t find Kern County grapes, I go without. But I live in a practical world where there have to be trade-offs. And on the front lines of my job, I watch and participate in these hard trade-offs.”

She goes on, “I have been offered jobs in a lot of other places with more money and more prestige. But I think that Kern County is one of the most fascinating places to work because of these opportunities to come up with innovative and creative ways to do good land planning.” A chief ambition is “to bring prosperity to the county and still get greenhouse gas reductions.” Her focus on renewables is especially savvy because it secures payback over the long haul. The infrastructure—grid connections, wind and solar installations, gas pipelines—demands large-scale capital investments that can’t be uprooted and relocated if the business climate suddenly sours.

Meanwhile, what continues to excite her about her job is balancing the demands of a society rooted in private property rights—“where you can still buy the American dream, a half-acre lot with a picket fence”—with the need to protect a greater public trust. “What I try to get [landowners] to understand is this: You give up some of the rights

on your land so we can breathe clean air; I give up some of the rights on my land so my kids can see a kit fox or California condor.' I am always trying to find that balance where everything can coexist."

Touring the county, I find plenty of examples of the kind of renewable-friendly policy making that has made Oviatt and Kern legendary among green energy developers: the conversion of a 44-megawatt coal-fired power plant to biomass gasification; a pilot project for sequestering two million tons of CO<sub>2</sub> in depleted oil fields; the state's largest bio-diesel manufacturing plant; and a string of small methane operations on dairy farms, which feed directly into Pacific Gas & Electric's existing natural gas pipelines. The innovation here, typical of Oviatt, is obtaining a CEQA exemption that allows local connections to the PG&E pipeline to be laid beneath roads, across private property, and through existing county easements.

"Lorelei was instrumental in drafting legislation that would grant the exemption," says David Albers, founder of BioEnergy Solutions, which is building the bovine methane facilities in Kern. "As an environmental lawyer who has practiced CEQA throughout the state for 10 years, this is the only time I have seen a planner take such huge steps for a particular type of project." Planners in other California counties—San Bernardino, Solano, San Luis Obispo, and Santa Barbara—have sought Oviatt's advice. "They want to know how we've streamlined our permitting process," she says. And she is frequently tapped to speak at national industry conferences. "In local government there is a lot of talk about renewables but not a lot of action," she says. "It's hard to turn the ship fast. So they're often looking for examples of what works and what doesn't."

**T**HE SUN HAS DIPPED BEHIND CACHE PEAK AND THE sky begins its nocturnal shift from cerulean blue to ruby red to dusky violet. That afternoon, while driving through Jawbone Canyon, I watch construction crews assemble turbine towers in the "lay-down" area. In a clearing, 125-foot-long rotor blades are aligned like giant icicles. "I've always tried to be a good steward of the land," Susan Hansen tells me. "And you won't find a better steward of the land than a rancher, because we depend on it for our livelihood, and we like utilizing Mother Nature without hurting it, destroying it, or using it up."

Without Kern County's progressive WEZ rules, or the red/yellow/green mapping system, or the extensive upgrades to transmission lines, or a mandate to encourage renewable energy investment on private property, Susan might have lost her land to foreclosure long ago. Today, however, her daughter maintains a small cow operation on the ranch, while the Hansens enjoy the financial benefits from the wind. With the extra cash, the family, now in its fifth generation on the property, is building a 1,600-square-foot cabin for weekend and holiday getaways. It's set in a wide saddle with a panoramic view of Cache Peak, where a plaque near the top commemorates her husband's life. "Now more of our land is being developed for wind energy—five more turbines are being erected," Susan says, "and I can just feel him up there approving." 🍁

**THE LONG VIEW**  
Wind turbines stretch away to the horizon on Oak Creek Road in Tehachapi.



*Michael Behar's last article for OnEarth was our Spring 2009 cover story, "How to Sell the Sun." With this issue, he joins us as a contributing editor.*

