MONTEREY COUNTY
WEEKLY

NEWS A pregnant lady gets lost in the Big Sur wilderness. **6**

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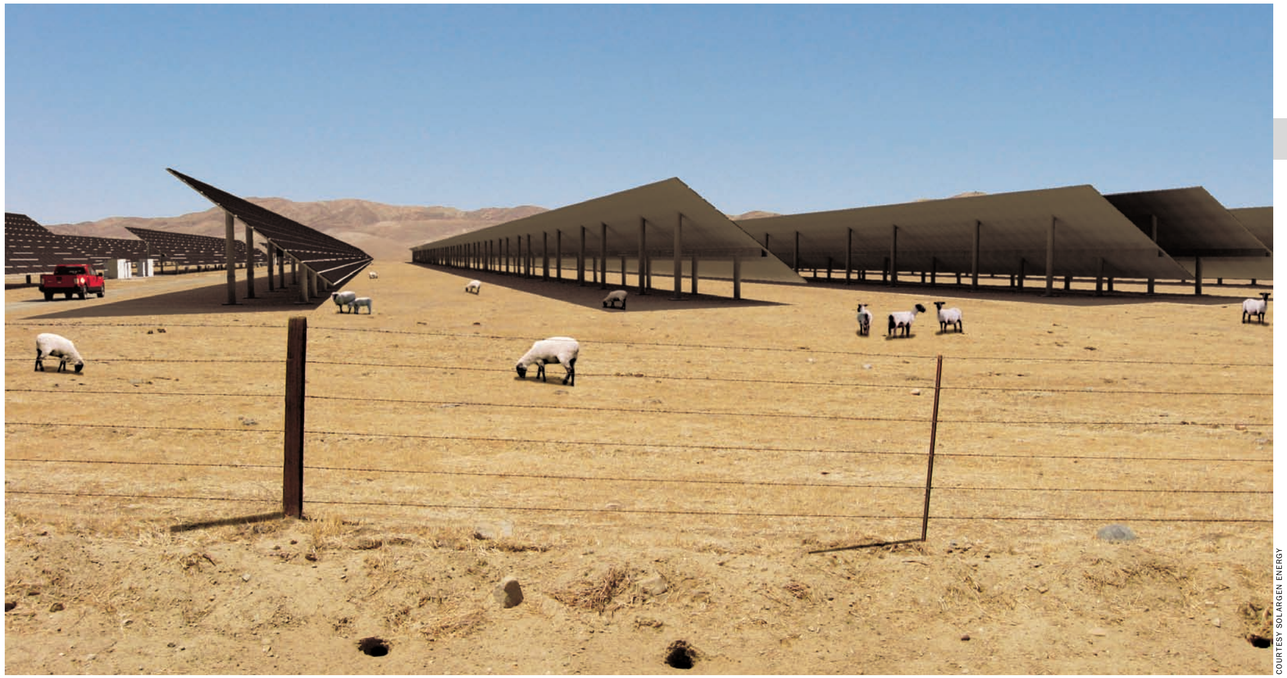
HOT PANOCHE

THE WORLD'S LARGEST SOLAR FARM MAY BE COMING TO CENTRAL CALIFORNIA, BUT LOCAL FARMERS SAY THEY'LL GET BURNED.

KERA ABRAHAM

solar frays



COURTESY SOLARGEN ENERGY

Sun Farm: A company illustration shows rows of solar panels that can be removed at the end of their 25- to 40-year lifespan. "It's still land and we're still gonna be grazing on it," Solargen executive Mike Peterson says. "When we're done, we'll be able to take it all off and return it to how it is."

NIC COURY

This Little Piggy: The sun helps grow the forage that makes Panoche Valley a good place to raise livestock like these heritage swine, sold in markets as Douglas Ranch Meats.

WILL CENTRAL CALIFORNIA'S PROPOSED PLACE IN THE SUN RUIN LIFE FOR SUSTAINABLE FARMERS?

By Kera Abraham

The country road wends inland from Highway 25 to the potholed boondocks: past gravel quarries and scrubby hills, over rocky drop-offs, finally opening into wide green grassland. This lushness is an anomaly; Panoche Valley is brown most of the year. But an El Niño winter has made the place luminescent on a bright February day, and locals look forward to the coming waves of wildflowers.

The valley is about 80 miles from the Monterey Peninsula, southeast of Hollister and northeast of Pinnacles National Monument. Locals pronounce it "pa-NOACH," almost like the Mexican slang for the source of the valley's eggs and livestock.

As Kim Williams collects some of those still-warm eggs, her 250-hen flock follows as if she's the Pied Piper, sun lighting up their blonde, auburn and zebra-striped feathers.

But the same sun that shines on Williams' farm is now luring industry into the unruffled pastureland. San Benito County officials are reviewing a proposal for a solar array that would cover almost a quarter of the Panoche Valley floor—a project that, if built today, would be the biggest photovoltaic system in the world, at 4,717 acres and 420 megawatts.

Solargen Energy's timing is ripe: Officials in Sacramento and D.C. are backing up calls for accelerated solar development with tax credits and other subsidies. The political incentives include oil independence, greenhouse gas emission reductions and job growth. But for Williams and her fellow sustainable farmers in Panoche Valley, Solargen's project might as well be Wal-Mart.

High-waisted jeans, button-up shirts and muddy boots are the dress code around Rani Douglas' kitchen table, where five neighbors count the ways they hate the Solargen proposal.

Their primary argument: The valley's Class 1 soil should be preserved to produce food for nearby cities. "That's prime ag land that needs to be protected," Douglas says.

These family farmers run the kind of meat and dairy operations Michael Pollan praises in *The Omnivore's Dilemma*: animals roaming free on open pasture, fattened on grass rather than grain, without pesticides, growth hormones or antibiotics. (In fact, Pollan's book is one of Williams' inspirations for moving to Panoche Valley four years ago.)

The arid land isn't ideal for row crops, although Heirloom Organics sows a piece of it; more common is eco-friendly meat and dairy. Williams' "beyond organic" eggs—raised on land owned by a Carmel Valley couple—can be found at Bay Area farmers' markets. Rani and Don Douglas' pastured beef, pork and lamb are sold at a Santa Cruz food co-op. Ron Garthwaite's raw milk, cream and butter fly off the refrigerated shelves at Monterey's Whole Foods.

NIC COURY

Rebel Chick: City-girl-turned-egg-farmer Kim Williams says she's part of a movement of small family farmers working to preserve Panoche Valley for sustainable agriculture and ecotourism.

Nenette Corrotto, who finishes beef on pasture bordering the proposed Solargen site, says the valley's agricultural value should be reason enough to keep solar panels out. "I was chasing a gopher, and I pulled up a handful of soil and said, 'This is beautiful soil,'" she says. "It's for food."

Nenette's husband, Don, worries the solar farm would encroach on land that's been in his family for five generations. Nenette imagines her fruit trees choked by dust from the industrial fields. Douglas doubts Solargen's claim that it would only use 10.5 acre-feet of water per year for panel-washing; more than that could draw down their shared water table. Looking at Solargen's illustrations of sheep foraging among the metallic rows, they ask how grass is supposed to grow under giant panels that block the sun and rain.

They are skeptical of just about everything in the 3-inch binder of Solargen documents, saying no one has verified the company's figures. They feel somewhat vindicated by the county's recent decision not to consider the project an agricultural use.

"A solar farm is not a farm," Nenette says, arms crossed. "There is nothing living on it."

"I think we need to have 'em out here and have a dinner of solar panels," Garthwaite adds gruffly. "This is one of the few places where agriculture is done correctly, and is totally in sync with the natural environment."

Douglas brings up Solargen's potential impacts on the tourist economy—particularly important to her husband Don, a master horse trainer who offers boarding and riding clinics. Panoche is also a draw for birders, bikers, hunters, ecologists, astrologists, archaeologists and even muscle car hobbyists. "People from all over the world come out here to have a Western experience," Rani says.

Nenette places some of the blame for Solargen's progress on Charlie and Jimmy McCullough, two old-time landowners who agreed to sell 3,000 acres to Solargen. The brothers live at the end of the valley, not right up against the proposed site like she does. "I told them, 'You're not gonna look at it!'" she says. "They see big money to be made on an opportunity that's once in a lifetime. But once the beauty of this valley is destroyed, it'll never be back."

Mike Peterson can't fathom why Williams' group—he calls them "the antagonists"—can't see what seems so clear to him: A solar farm in Panoche Valley would be good for the planet, gentle on the land and easy to undo if new technology makes the project obsolete in a few decades. "It's hard for me to understand and accept why those people are opposing it," he says during a coffee-shop interview in Hollister, where he's been meeting with county planners.

The Solargen chairman and CEO, clean-cut and classically handsome, wants the public to know he's not the corporate villain his opponents make him out to be. "I'm just a normal guy," he says more than once. The Brigham Young University alum has been married 27 years, has five kids, serves on a Boy Scout council and drives a Toyota Avalon. He lives in Contra Costa County but enjoys family getaways to a shared vacation home near Monterey's Del Monte Beach.

But he also knows his way around Wall Street penthouses. As a former Goldman Sachs vice president, he oversaw more than $7 billion in assets; a subsequent gig as Merrill Lynch VP focused on brokering for the super-rich. He later started a private investment firm and joined the boards of ethanol, biodiesel and oil drill-

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NIC COURY

Power Points: Solargen's Mike Peterson says a Panoche Valley solar farm would provide jobs and much-needed revenue for San Benito County—if local officials approve his permits.

ing companies. Seeing the market trending toward solar, in 2008 he joined Cupertino-based Solargen, then a 2-year-old operator of "environmentally friendly, large-scale, renewable energy projects."

After scrapping a Fresno proposal, Solargen put all its solar eggs in Panoche's basket: "All we're focusing on now is this," Peterson says.

On what is now a flat, mostly treeless valley floor, Peterson envisions more than 1.8 million photovoltaic panels up to 15 feet tall, lifted on poles to allow sheep to graze underneath. Their black faces tiled south and southwest, the panels would convert sunlight directly into electricity (unlike solar thermal systems, which use water and oil to convert light into heat). The panels would be divided into 9-acre blocks, each with a concrete pad, transformer and inverters sending electricity to a substation that feeds into an existing Pacific Gas & Electric transmission line.

A mock-up of the project shows obedient rows of panels with placid ovine accessories. "We're farming and making energy," Peterson says.

He's proud of the project's thin-film photovoltaics, in which an etched layer of silicon is adhered to glass. Although the panels are made in China, he says, they're environmentally superior to the domestically produced alternative. "There's nothing toxic in these panels," he says.

If completed today, Solargen's 4,717 acres would constitute the world's biggest solar farm, almost seven times the size of the current title-holder in Spain. But solar is trending even bigger: Last September China announced plans for a 2-gigawatt PV plant on 16,000 acres of Mongolian desert.

Solargen is tracking the progress of other utility-scale solar proposals across the state, particularly a 550-megawatt project in southeast San Luis Obispo County, about 120 miles south of Panoche Valley. That project, in the remote Carrizo Plain, is provoking a similar habitat-versus-energy debate—though Peterson notes developer First Solar, unlike Solargen, plans to use panels made with potentially cancer-causing cadmium-telluride gas. "We're watching what they're doing and trying not to repeat their environmental mistakes," he says.

The proposals herald the entrance of Big Solar—an industry Californians recently confronted with Proposition 7, which would have directed the state's electric utilities to provide half their power from renewable sources by 2025. Surprisingly, eco-liberals didn't back it: Heavyweight progressive and green groups, every major political party and even the California Solar Energy Industries Association opposed the measure, in alliance with the utility companies that bankrolled the No on 7 campaign. Their message wasn't anti-solar, but rather that if renewable mandates are coming, they should be negotiated in Sacramento. Almost two-thirds of the state's voters agreed in the 2008 general election.

But that same November, Gov. Schwarzenegger issued an executive order requiring utilities to ramp up their renewable energy sources to 20 percent this year and 33 percent by 2020. Government incentives sweeten the pot for ventures like Solargen, which expects federal grants and tax credits to constitute 30 percent of its capital investment in the Panoche project.

"We as Californians have voted for higher electricity costs," Peterson says. "We want cleaner air and renewable energy, and we're willing to pay a little more for it."

The governor has focused on the Mojave Desert as a no-brainer site for solar farms. But it's also largely devoid of power lines and, to Schwarzenegger's chagrin, a mostly pristine habitat for rare desert species. Last month, U.S. Sen. Dianne Feinstein (D-Calif.) introduced a bill that would designate a half-million acres between the Mojave National Preserve and Joshua Tree National Park as wilderness, off-limits to industrial solar development. If passed, the law would only add to the momentum for solar in sunny ag lands like Panoche.

"I THINK WE NEED TO HAVE 'EM OUT HERE AND HAVE A DINNER OF SOLAR PANELS."

Peterson likes to quote a contract engineer who said of the valley, "'It looks like God created this to be a solar farm.'" From Solargen's perspective, it's perfect. The land is relatively cheap, with high solarity. Peterson says PG&E's 230 kV Moss-Panoche transmission line, which connects the valley with Moss Landing's natural-gas power plant, could deliver the sun's power to urban centers within 130 miles, including San Jose, San Francisco and maybe even the Monterey Peninsula.

Panoche Valley landowners have already agreed to sell Solargen the roughly 15,000 acres it needs: almost 5,000 within the project boundary and another 10,000 for mitigation. Peterson says that's about $20 million in real estate.

Some 60 percent of the project site would come from the vast family holdings of the McCullough brothers, 83-year-old Charlie and 76-year-old Jimmy. Grandsons of a late-1800s Panoche homesteader, the bachelors now run a cow-calf operation and count some 15,000 acres of family-owned or leased land in the area.

"Oh, I love the place," says Charlie, who first set foot in the valley before World War II. "They're gonna bury me here."

But he corrects me when I call the valley beautiful. The lush green I witnessed this winter is the result of 7 atypical inches of rain, he says; Panoche suffered drought conditions for three years prior. The land in its natural state is dry and harsh, he says; not at all the prime ag land Solargen opponents make it out to be. It's not even so good for grazing, he adds, citing Hollister's much higher lease rates.

The bright weather, on the other hand, is ideal for both sheep and solar, he says. And the county needs the tax revenue, especially in this economy. He bears no malice for the project's opponents—"they're good people," he says of Williams and her allies—but he thinks they're missing the forest for the trees.

"I don't feel good about it, but nobody wants to put it in their backyard," he says. "We've got to wean ourselves from foreign oil, and I can live with it."

That wasn't his first reaction. When a local realtor first approached the brothers with Solargen's offer of $8 million for 4,000 acres, McCullough recalls, "he threw down the papers here and said 'Man, I've got a helluva deal for you.' Jimmy and I looked at each other and we said, 'No way.'"

But after a few weeks of thought, the McCulloughs came around. Although the brothers preferred offshore drilling and nuclear energy, they saw the sense in President Obama's talk of solar and wind development. "We're patriotic, let's put it that way," Charlie says with a chortle.

Besides, they wanted a comfortable retirement, and something to pass down to the next generation of McCulloughs. They finally agreed to sell 3,000 acres, despite the potential stigma from their neighbors. If God created Panoche Valley to benefit humankind, Charlie reasons, the solar farm might be a part of a greater plan. "He's got this little bowl here which is ideal," he says. "Maybe it's his intention to have this here."

But Carmel Valley resident Frank Saunders, who leases his Panoche farmland to Williams and Heirloom Organics, has another vision of the Solargen project. "I think it's gonna look like hell," he says. "Panoche Valley is a real gem, and few people know about it except those that keep it secret. [Solargen] would change the character of that valley forever."

The San Benito County Planning Department is housed in a dumpy module on Hollister's rural outskirts. Three women in the front office chat about heart-shaped Valentine's Day doughnuts and root beer while I flip through Solargen documents.

In a county suffering from depressed revenue, the solar farm is a potential windfall. Peterson says it would generate about $1 million per year in county taxes—a nice boost to a $37 million General Fund budget—and create about 150 direct jobs during construction, plus 40 full-time positions over the long term. (But Solargen's application estimates 10 full-time jobs.) The site would be fenced, guarded and well lit.

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NIC COURY

Bum Steer: Panoche Valley farmers say Solargen would sour their pasture. From left to right: Nenette and Don Corrotto of Rancho de la Llanada, Kim Williams of Your Family Farm, Rani Douglas of Douglas Ranch Meats and Ron Garthwaite of Claravale Dairy.

The county is still reviewing the project, which has to pass through several hoops before it can break ground. In November, the county supervisors decided a sheep-grazed solar farm is not a "compatible use" under the Williamson Act, which provides tax breaks for farmland conservation. The rejection forced Solargen to begin the process of canceling the site's special tax designation, which requires county backing, state Department of Conservation approval and a several-million-dollar fee.

The next step will be a full environmental impact report under the California Environmental Quality Act, which will likely focus on wildlife habitat in addition to the land use issue. "Aesthetics and biology are probably the major issues," says County Planner Byron Turner.

The project site is home to several endangered species, including the blunt-nosed leopard lizard, San Joaquin kit fox and giant kangaroo rat. The Center for Biological Diversity is keeping a close eye on the project, as is the Audubon Society. Several chapters, including Monterey Peninsula's, have spoken out against the proposal, which they say could impact world-renowned habitat for some 130 bird species. (Birder blogs gush about the yellow-billed magpies, long-eared owls and mountain plovers spotted in Panoche.) Solargen proposes to mitigate wildlife impacts with 10,000 acres of set-aside habitat, and culverts allowing the cat-sized foxes to move freely through PV fields.

San Benito County residents will have their chance to weigh in on the project next month at an EIR scoping meeting. For now, the public seems undecided. In a recent poll in *The Hollister Free Lance*, half of respondents said the project would be an "economic boon" to the county, while a quarter preferred to "wait and see." Fifteen percent said it would be "great for the environment," while 11 percent called it an "environmental disaster."

Kim Williams drives along the perimeter of the Solargen site, pointing out the things that could be lost.

The panels would gallop right up to the edge of the valley's lone little school, which has two staffers—Williams, the instruction aid, and a teacher-principal—and 11 students in grades K-8, including Williams' daughter, kindergartner Ava Mae.

The development would drive off birds, she says, squinting at three ferruginous hawks looping over the Douglases' pasture. The view, too, would be desecrated by thousands of acres of industrial sun-collectors. "It's such a rare thing to be able to see for miles and miles," she says with a touch of melancholy.

Panoche Valley's solar debate has been called a classic case of "not-in-my-backyard," but Williams says the NIMBY label downplays the larger social ramifications. Her take-home message is about preserving ag land for food security, but she also points out that eating locally and preserving carbon-sequestering grasslands are significant ways to slow global warming.

She'd prefer to see photovoltaics sited close to urban centers, on rooftops and industrial wastelands. Small-scale, decentralized photovoltaic systems—in the spirit of 1BOG (One Block Off the Grid), or the *Weekly*'s own rooftop array—reduces energy lost in transmission, minimizes wildlife habitat conflicts and democratizes energy production, spreading revenue and control amongst individuals rather than concentrating the power, literally, in the hands of a few giant companies.

She worries government incentives are driving solar development too fast, without allowing time for infrastructure to catch up. "Computers used to take up entire rooms and now they fit in your pocket," she says. "It's scary to think that in the rush to take advantage of subsidies and meet mandates, local governments are willing to throw prime ag land and pristine open spaces aside."

Still, Panoche's Solargen debate is, at heart, a story of place. Plopping one of the world's biggest solar developments in the middle of open ranchland would devastate folks like the Williamses and the Douglases, who have chosen to root in a remote, largely unspoiled valley where cattle graze and chickens cluck and neighbors provide for one another.

Williams says not even the solar farm would drive her away. "If everyone sticks it out, I would stick it out," she says. "This is where we're at until we die."

But up at the valley's edge, old Charlie McCullough embraces the hope of an assimilated future, in which both Solargen's farm and Panoche's farmers harvest the sun's energy to feed Central California's growing urban centers—the former with electricity, the latter with grass-fed meat and dairy.

It's a futuristic rural landscape in a warming world, a portrait of clean food and clean energy and heavy-hearted cowboys riding under a blazing sun.

Solargen Farm at a glance

LOCATION: Panoche Valley, near Paicines, Calif.

SIZE: 4,717 acres within the project boundary; panels on 2,500 acres

POWER POTENTIAL: 420 megawatts, enough for more than 125,000 PG&E residential customers

CARBON OFFSET: More than 424 million pounds CO2 per year

TECHNOLOGY: Amorphous silicon thin-film photovoltaic panels

TRANSMISSION: PG&E's existing 230 kV Moss-Panoche line

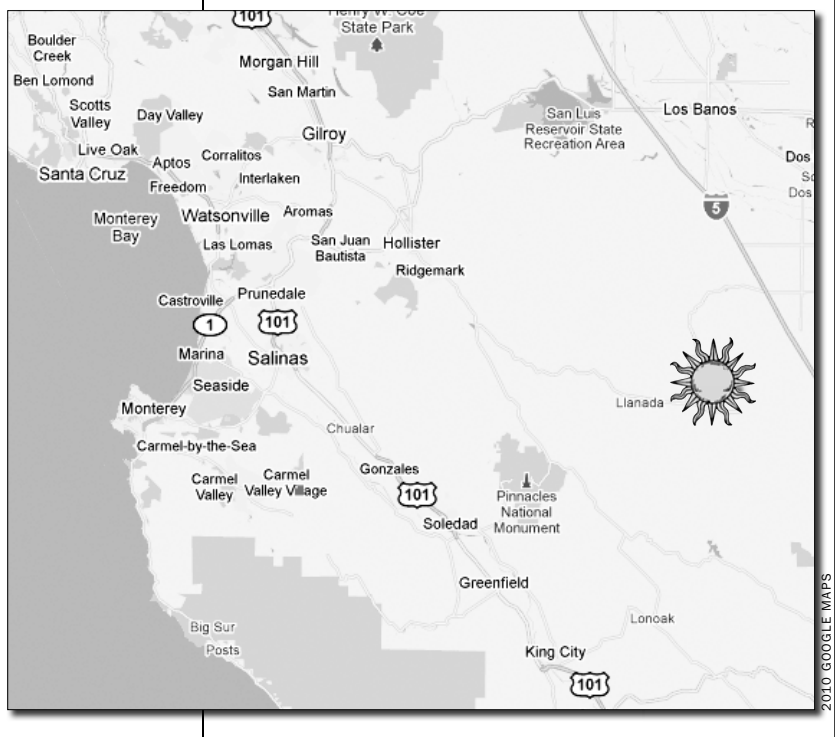
MITIGATION: About 10,000 acres for wildlife habitat

CONSTRUCTION WINDOW: Late 2010 to 2016

2010 TAX CREDITS: About 30 cents to the dollar

ESTIMATED COST: $1.3 billion

ESTIMATED REVENUE: More than $5 billion



Sources: Solargen CEO Mike Peterson, www.solargen-energy.com, PG&E Carbon Calculator