

Mexican Sun Lures Cash to Solar as Panel Prices Plunge

By Marc Roca - Oct 4, 2013

Mexico, poised to allow foreign oil extraction for the first time in 75 years, is finding its abundant natural resources also appeal to investors in a much cleaner energy: sunshine.

[First Solar Inc. \(FSLR\)](#) of the U.S. has bought its first projects in Mexico, while more than a dozen other developers including Germany's Saferay GmbH and [Spain's](#) Grupotec Tecnologia Solar SL own licenses there. Local investor Gauss Energia opened Latin America's largest photovoltaic plant in the country last month.

The project "will open the way for the development of the photovoltaic sector," Gauss Chief Executive Officer Hector Olea said in an e-mail. "There have been multiple announcements but very little real development work so far even though the regulatory system is sound and conducive to bankable projects."

Mexico, a top 10 oil producer, plans to generate 35 percent of its power from clean sources by 2026, up from less than 15 percent now, to curb emissions and diversify its energy mix. A global surplus of solar panels has made them cheaper, while the costly oil-fired plants common in areas such as Durango, Sonora and southern [Baja California](#) make solar a competitive option.

[Gauss](#) and [Portugal's](#) Martifer SGPS SA opened a 30-megawatt plant in [La Paz](#), Baja [California](#), on Sept. 12 with funding from International Finance Corp. and Nacional Financiera SNC bank. While Mexico doesn't subsidize large solar, the \$100 million project offered an economic alternative to fossil-fueled power in the area, where solar radiation exceeds the national average.

Hydro-Heavy

Most of the country's clean energy comes from hydroelectric stations. Wind and solar, making up less than 1.5 percent of power output, have been slow to take off as developers struggle to reach deals with electricity purchasers, banks and regulators unfamiliar with the nascent industries. Yet the tide is turning.

Local and foreign companies have amassed initial permits for 215 megawatts of solar plants, mainly in [Mexico's](#) sunnier northern regions, figures from industry regulator CRE show. That's enough to power more than 40,000 homes, and would increase the country's solar capacity more than fivefold.

The government set up a renewables council in June to draft an energy program including the nation's first capacity targets. The Energy Ministry [forecasts](#) solar capacity of as much as 2,170 megawatts and a 10-fold growth in wind to more than 14,000 megawatts by the end of the decade.

Oil Overhaul

Oil still generates about a third of Mexico's power output. Changes are afoot across the industry, with President Enrique Pena Nieto proposing a carbon levy on fossil fuels and increased tax collection to help cut reliance on oil income, which funds about a third of the budget. A bill filed in August would allow non-state companies to pump crude for the first time since 1938.

While the solar industry is minute by comparison, the country may complete large-scale projects totaling as much as 70 megawatts this year, about 125 megawatts in 2014 and 120 megawatts in 2015, Bloomberg New Energy Finance has forecast. In [Latin America](#),

only Chile and [Ecuador](#) will build more solar parks next year, according to the researcher.

“We expect a small boom in utility-scale installations in the north and western regions due to high solar radiation, falling system costs and foreign developers and manufacturers in search of new markets,” said Maria Gabriela da Rocha, a former BNEF analyst in [Sao Paulo](#). “Longer term, residential and commercial-size projects are set to drive growth in the country because solar now makes economic sense for many customers.”

CFE Deals

Developers such as Gauss can take advantage of the Small Electricity Producers’ Program, under which the Comision Federal de Electricidad, the state utility known as the CFE, buys power from solar projects of as much as 30 megawatts. The utility offers 20-year deals fixed at 98 percent of its average cost of generating power in the area over the previous year.

First Solar, the largest solar company in the U.S., has acquired several projects in Sonora state as part of an agreement with Element Power US LLC, it said in August.

“The pipeline strategically positions First Solar for our entry into the market,” Tim Rebhorn, senior vice president for business development, said at the time. “We are excited by the opportunity to explore new relationships with CFE, commercial and industrial customers, and the Mexican government.”

The sunshine in Mexico, where average solar radiation is almost 60 percent higher than in [Germany](#), the world’s largest market, has also engendered a growing market in rooftop solar.

Economic Sense

Solar energy makes economic sense for about 3.5 million commercial customers and 500,000 high-use residential consumers who pay “extremely high” electricity rates, according to BNEF. Installations of under 500 kilowatts benefit from net metering, a system that credits generators for the power they can’t use.

Gauss is also considering an alternative funding model for future projects known as self-supply. Under the arrangement, already used to fund wind farms in Mexico, developers can sign long-term power-purchase agreements with non-state companies, which commit to buying electricity at a fixed price.

Such a model has attracted [Ford Motor Co. \(F\)](#), which in June agreed to buy 3 megawatts from a 20-megawatt solar plant planned in Sonora. The project also has purchase agreements with seven local authorities for the remaining capacity.

Solar power from megawatt-scale plants remains uncompetitive in most regions of Mexico because the country’s average cost of power generation is only about 12 cents a kilowatt-hour, according to Gauss’s Olea. That compares with about 30 cents in the southern tip of Baja California.

For large projects, more funding and power-purchase deals are needed for the market to “take off,” said Stuart Smits, CEO of the U.S.’s New Energy Ventures LLC. The company plans to develop 2-megawatt to 3-megawatt projects for Mexican municipal authorities, many of which pay higher-than-average power prices.

“A few solar deals are needed to mark price points and give confidence,” he said. “Once this happens, the market will boom.”

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