

solar project in California. The 21 megawatt (MW) Blythe Solar Project will be NRG's first solar generation facility in operation when it comes online later this year. The site was acquired from **First Solar, Inc.**, a leader in advanced and efficient thin film solar technology focused on manufacturing solar panels and developing solar projects for utilities and generators to operate.

Located in Riverside County in southeastern California, approximately 200 miles east of Los Angeles, the solar PV field will provide electricity to Southern California Edison (SCE) under a 20-year power purchase agreement. At peak capacity, the site will be able to meet the needs of almost 17,000 homes.

"Successfully transitioning to a low- and no-carbon energy environment means using renewable resources that are located where the demand is," said **David Crane**, President and Chief Executive Officer of NRG Energy. "Partnering with companies like First Solar to add large-scale PV solar to the fleet of solar thermal power plants we are developing with eSolar positions us to lead the industry in the commercial implementation of solar technologies where America can best reap the benefits of this emission-free power."

As part of the acquisition of the nearly completed Blythe Solar project, NRG Solar has entered into an engineering, procurement and construction agreement with First Solar for completion and performance testing of the project. Testing is expected to commence later this month, and the project to be completed by year end.

NRG Solar is responsible for developing, constructing, financing and operating a multi-technology portfolio of solar power assets in North America. Blythe is part of NRG's zero-emission solar strategy that also includes plans to construct commercial-scale solar thermal generation at sites in California and New Mexico. The first of these units is anticipated to begin operating as early as 2011. NRG is also working to develop solar capacity at nationwide sites with strong solar resources and established easily accessible connections to power grids. NRG's other low- and no- carbon developments include new nuclear generation, onshore and offshore wind, biomass projects and a commercial-scale carbon capture project for fossil-fueled generation.

NRG Energy, Inc., a Fortune 500 company, owns and operates one of the country's largest and most diverse power generation portfolios. Headquartered in Princeton, NJ, the Company's power plants provide more than 24,000 megawatts of generation capacity—enough to supply more than 20 million homes. NRG's retail business, Reliant Energy, serves more than 1.6 million residential, business, commercial and industrial customers in Texas.



E.ON Activates Its First South Texas Wind Farm – Papalote Creek

On October 15, **E.ON Climate and Renewables (EC&R)** and **CPS Energy** officials and guests gathered near Taft to "flip the switch" on the Papalote Creek Wind Farm. The plant includes 109 of Vesta's V82 1.65 MW wind turbines – said to be a first for use of this model in the U.S. – for a total capacity of 179.85 MW. Construction began on the facility in April of this year. CPS Energy has contracted to purchase the production and credits from 115.5 MW of the project's total capacity.

The Papalote Creek Wind Farm is located on the Texas coastal plain Northwest of Corpus Christi, an area devoted largely to cotton and grain farms. It includes the participation of over 80 landowners. According to EC&R, it will provide enough clean wind power to meet the needs around 54,000 average American homes and is projected to avoid more than 324,000 tons of carbon dioxide emissions and save a quarter billion gallons of fresh water every year when compared with a conventional steam-driven fossil fuel plant.

USDA's Vick Tells Radio Audience Wind Farms Mean Huge Water Savings

Since most of the electricity in the U.S. is generated using coal and natural gas as fuel, almost every wind farm announcement includes the estimated amount of carbon dioxide which was not released to the atmosphere. According to Wikipedia, 2.25 tons of CO₂ and 1.14 tons of CO₂ are

released for every MWh of electricity produced by coal and natural gas power plants, respectively. However, seldom does a wind farm announcement include how much water was saved. **Brian Vick**, engineer in the renewable energy group at **USDA-ARS** laboratory in Bushland, was interviewed by KGNC 710AM Talk radio on Nov. 3, 2009. In the interview he answered questions on how water is saved by using wind and solar energy.

Xcel (SPS) Territory



Brian emphasized that one of the most beneficial aspects of using wind energy in Texas and New Mexico is that no water is needed to produce wind generated electricity while almost every other major form of electricity production in the world consumes water. Coal, natural gas, nuclear, and some types of solar power plants such as parabolic trough and central tower CSP power plants need water, but Dish Stirling and solar-PV power plants do not. Even hydro-electric power plants incur some water loss through evaporation.

“For a thermal power plant it is important to know how much water is withdrawn, how much is recycled, and how much is actually consumed,” said Vick. “Many thermal power plants are located close to lakes or rivers. They withdraw large amounts of water for cooling, but they return the water to its

source, albeit at a higher temperature. Higher temperature water is more likely to evaporate and may also cause ecological problems.”

Vick noted that Gale Henslee at Xcel Energy (Southwestern Public Service – see map) recently estimated the amount of water consumed at their thermal power plants over the year to be 600 gallons/MWh, and **Dr. Vaughn Nelson** at **West Texas A&M Alternative Energy Institute** estimated the current wind farm capacity in Xcel’s territory in Texas and New Mexico is 917 MW. “Assuming a 35% capacity factor for the wind farms, the total annual savings of water comes out to 5000 acre-feet. An acre-foot is one foot of water on an area approximately the size of a football field,” Vick said. “Based on records from the Amarillo water department, the average water usage of a person in Amarillo in 2007 was 236 gallons of water per day. This would indicate that the wind farms in Xcel territory are saving the equivalent of what 19,000 people (10% of the population) in Amarillo used during the year.”

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Levelland Announces \$8.6 Million Industrial Rail Park



Levelland, TX (*December 1, 2009*) – Levelland City and Economic Development officials recently announced an \$8.6 million industrial rail park to be built in the 12,866 population town.

“We’re excited to break ground on this new venture,” said **Dave Quinn**, executive director of the

Levelland Economic Development Corporation (LEDC), during a late November groundbreaking. “We’ve used the tagline, ‘Progressive on Purpose,’ here in Levelland for quite some time, and this is the epitome of our work – not only for our city, but for the entire West Texas region.”

The entire rail portion – which includes a 300-acre development for new businesses – is expected to be complete in 2010. The project is receiving \$3.3 million in federal stimulus funds along with \$1.5 million of the LEDC’s cash reserves. The remaining \$3.8 million comes in the form of a loan through bonds sold by the city and repaid with LEDC sales tax revenues and Tax Increment Financing District Funds.



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