Renewable Energy Update

an Allen Matkins market intelligence publication



September 1, 2009

More sun for less: solar panels drop in price

The New York Times - August 26

The cost of solar panels has plunged lately, changing the economics for many homeowners. Panel prices have fallen about 40% since the middle of last year, driven down partly by an increase in the supply of a crucial ingredient for panels, according to analysts at the investment bank Piper Jaffray. The price drops, coupled with recently expanded federal incentives, could shrink the time it takes solar panels to pay for themselves, from 22 years to 16 years, in places with high electricity costs, according to SunCentric's chief executive Glenn Harris. That calculation does not include state rebates, which can sometimes improve the economics considerably.

Renewable Energy Focus

California proposes new program for 1 GW of renewables

Grist - August 27

The California Public Utilities Commission issued a new proposal designed to increase significantly the amount of solar energy installed in the state. The proposed program would require utilities to purchase electricity from mid-size solar and other renewable energy technologies of 1 to 10 MW. At least twice a year, utilities would issue a request for proposals for qualifying renewable projects. The regulatory body would set a revenue requirement for each solicitation (i.e. the total amount of money that could be spent). Utilities would rank bids by price, then be required to take the least expensive ones first until the money runs out. Losing bids are free to bid on the next solicitation.

Smaller wind projects find opportunity in economic crisis

Renewable Energy World - August 18

Falling turbine, steel and labor prices have created the perfect environment for mid-scale wind energy projects to thrive. Small wind projects range in size from 100 kW to 30 MW and typically serve schools, farms, rural villages, businesses and municipal utility companies. Because these types of installations can access funding from various sources, they are less vulnerable to the credit crisis than their large-scale wind farm counterparts.

A rare peek at green energy economics

Green Inc. - August 24

California regulators have approved contracts for more than 8,600 MW of renewable energy, to be generated mostly by big solar power plants for the state's largest utilities. The California Public Utilities Commission recently gave the green light to two 25-year power purchase agreements between Pacific Gas and Electric Company (PG&E) and BrightSource Energy, a solar power plant builder based in Oakland, California. When approving contracts for 310 MW of solar electricity, the utilities commission also signed off on an apparently first-of-its-kind technology royalty agreement between BrightSource and PG&E. Under the contracts, BrightSource will generate electricity from two of seven solar thermal power plants the company is building in the Mojave Desert to supply PG&E with a total of 1,310 MW. In an unusual twist, the utility has agreed to pay BrightSource a higher electricity rate if the start-up fails to secure a Department of Energy loan guarantee to help finance the construction of the two power plants.

\$3.3 billion in R&D could make geothermal energy the cheapest energy technology: report

CleanTech Group - August 25

Spending \$3.3 billion in R&D could propel geothermal energy to be the cheapest energy technology on a cost-per-kilowatt-hour basis, according to research by a New York University professor. The study indicates that geothermal has surpassed wind as the most efficient alternative energy technology. In addition, geothermal technology is improving at the fastest rate, the report says.

SCE wants to deploy largest grid battery ever

Reuters - August 26

Southern California Edison (SCE) is seeking a U.S. grant to store wind power in the largest-ever grid storage battery to be built by A123 Systems. The utility, a unit of Edison International, wants \$65 million in grants from the U.S. Department of Energy for the pilot storage project and for another project involving integration of home energy management systems into the electric grid. The utility wants \$25 million for the battery project, which would be the largest ever for power grid applications. The result of the applications is expected in November.

California's electric utilities battle over where renewable energy will come from

Sacramento Bee - August 24

California utilities say they can't reach the state's goal of getting a third of their power from renewable sources by 2020 unless the state allows them relatively free access to renewable power generated far beyond the state's borders. Labor and environmental groups accept the need for some of the power to come from out-of-state, but they're pushing for legislation that encourages production capacity to be built in California that would foster a more robust green economy and spur development of more small-scale, local power sources like rooftop solar panels that don't need new transmission lines.

U.S. Chamber of Commerce seeks trial on global warming

L.A. Times - August 25

The U.S. Chamber of Commerce, trying to ward off potentially sweeping federal emissions regulations, is pushing the Environmental Protection Agency (EPA) to hold a rare public hearing on the scientific evidence for man-made climate change. Chamber officials say it would be complete with witnesses, cross-examinations and a judge who would rule, essentially, on whether humans are warming the planet to dangerous effect. The goal of the chamber, which represents 3 million large and small businesses, is to fend off potential emissions regulations by undercutting the scientific consensus over climate change. If the EPA denies the request, as expected, the chamber plans to take the fight to federal court. The EPA is calling the hearing a "waste of time" and saying that a threatened lawsuit by the chamber would be "frivolous."

Notable Renewable Energy Projects and Deals

'Solar-powered oil field' could reduce Chevron's carbon footprint

Green Inc. - August 24

BrightSource Energy has broken ground on a 29-MW solar steam plant at a Chevron oil field in Coalinga. The 100-acre project will produce hot, high-pressure steam. In this case, the steam from the plant will be injected into oil wells to enhance production by heating thick petroleum so it flows more freely. Oil companies typically rely on steam generated by natural gas or other fossil fuels to maximize oil recovery in places like the oil patch. Chevron is an investor in BrightSource and solar-powered oil extraction offers the oil giant an opportunity to reduce its carbon footprint while gaining a hedge against volatile natural gas prices. For BrightSource, which has signed contracts to supply 2,610 MW of solar electricity to California utilities, the Chevron deal is a chance to scale up its technology and explore new applications for its technology. The solar plant will be built by BrightSource and owned and operated by the oil company and is scheduled to go online by the end of 2010.

California's first utility-scale PV solar farm breaks ground in Central Valley

Central Valley Business Times - August 24

Cleantech America, a company owned ultimately by the government of New Zealand, says it has broken ground on California's first utility-scale photovoltaic solar project to be approved under the state's Renewables Portfolio Standard program. Named CalRenew-1, the solar farm is located in Mendota in Fresno County and will provide 5 MW of solar electricity to Pacific Gas and Electric Company under a long-term power purchase agreement. The facility is scheduled to begin operation before the end of the year and when completed will be one of the largest photovoltaic solar projects in California. Cleantech America was recently acquired by Meridian Energy Ltd., the largest state-owned electricity generator in New Zealand.

PG&E wants to store wind, solar energy

San Francisco Chronicle - August 27

In a rural corner of Kern County, Pacific Gas and Electric Company (PG&E) plans to build a facility that would use energy from renewable power plants to compress air and pump it into an underground reservoir. The pressurized air would later be fed into a turbine to generate electricity. The company applied for a \$25 million federal grant to pay for designing the facility. The total cost of the project, which could take five years to complete, would top \$300 million, most of it paid by the utility's customers.

California studies \$1 billion carbon-capture plant

Bloomberg - August 26

California's Energy Commission will consider approving a carbon-capture plant proposed by a joint venture of units of Rio Tinto Plc and BP Plc. The venture, called Hydrogen Energy International LLC, has provided enough information to start a formal, yearlong certification process for the plant, the commission says. Last year, units of BP and Rio Tinto proposed to build the 350-MW carbon-capture plant west of Bakersfield. The

California plant will convert blends of petroleum coke and coal into hydrogen that will be used to fuel a power station. The companies said that it will also capture 90% of the carbon dioxide produced.

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About Allen Matkins

Allen Matkins Leck Gamble Mallory & Natsis LLP, founded in 1977, is a California law firm with over 230 attorneys practicing out of seven offices in California. The firm's broad based areas of focus include construction, corporate, real estate, project finance, business litigation, taxation, land use, environmental, bankruptcy and creditors' rights, intellectual property and employment and labor law. More...



Recent Events

Allen Matkins has attended numerous events addressing developments in the renewable energy field in 2009.

A <u>summary can be found</u> <u>here</u>.

Allen Matkins hosted the successful panel discussion on **Renewable Energy Project Finance**. For a copy of the program materials, **click here**.

Upcoming Events

Energy In California San Francisco, CA

September 14 & 15

Developing Wind Power
Projects in California
Marina del Rey, CA
Sept 17 & 18

Taking It Upstream:
Collaboration, Consensus
Building and Sustainable
Development--A Green
Leadership (Un)Conference
Pepperdine University
September 25

Bryan Jackson of Allen Matkins is speaking. Get the Allen Matkins discount when you register!

2nd Renewable Energy Finance Forum – West San Francisco, CA September 29 & 30

2009 Algae Biomass Summit San Diego, CA October 7-9

ICSC Retail Green
(Sustainability, Energy &
Environmental Design)
Hollywood, CA
October 14-16

Solar Power Project

Development

San Diego, CA

October 22

Solar Power International

Anaheim, CA **October 27-29**

Urban Land Institute 2009 ULI Fall Meeting and **Urban Land Expo**

San Francisco, CA November 3-6

Green Technology Green California Schools Summit

Pasadena, CA December 9-11

Clean-tech Investors Summit

Palm Springs, CA January 20-21, 2010

2010 VerdeExchange **Green Marketmakers Conference**

Los Angeles, CA January 24-25, 2010

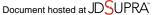
Renewable Energy Technology Conference and Exhibition (RETECH)

> Washington, D.C. February 3-6, 2010

Recent Opportunities

Los Angeles Department of Water and Power Smart Grid Consulting Services Request for Proposals

> **City of Willows Opportunity**



New Submission Deadlines
Released for the California
Energy Commission
Alternative and Renewable
Fuel and Vehicle
Technology Program

Los Angeles Department of Water and Power Renewable Energy Supply Rolling Request for Proposals

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