Institutional Investor

VOL. XVI, NO. 12 / March 25, 2013

Exclusive Insight on Power M&A and Project Financing

# Power Finance & Risk

The weekly issue from **Power Intelligence**

www.powerintelligence.com

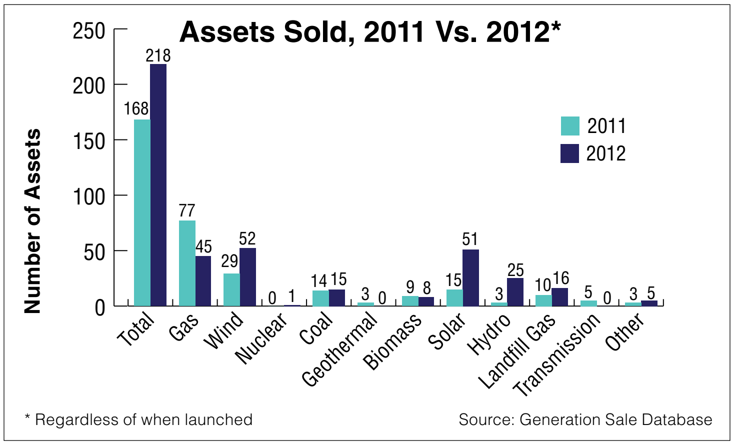
## M&A Sees Q4 Sales Bump; Renewables Take Chunk Of 2012 Volume

The rate at which generation assets found new owners in the final quarter of 2012 was up versus the activity in both the third quarter and the same period of 2011. The market saw 64 assets change hands—wind led the generation league tables with 39% of the action—compared with 44 assets in Q3 and 34 in Q4 2011, according to exclusive data from *PI*'s *Generation Sales Database*.

Overall, renewables (biomass, hydro, solar and wind) take the lion's share of activity with 62% of all deals, or 136 of 218 assets sold in 2012. Of the 270 assets that hit the market, renewables took the lead again, with 167.

Fourth quarter flow brought several first-time U.S. renewables investors to the table, including **BlackRock Alternative**

*(continued on page 12)*




## BrightSource Hunts For Palen Financing

**BrightSource Energy** is talking to lenders and potential equity investors for financing backing its 500 MW Palen solar thermal tower project in Riverside County, Calif. Palen sports a similar development price tag to the Oakland, Calif.-based sponsor's $2.6 billion 500 MW Hidden Hills solar thermal project. **Abengoa** is a joint venture partner in the project.

Solar thermal tower technology is yet to be project financed in the private sector bank or capital markets in the U.S. To date, it has relied on debt from the now expired U.S. **Department of Energy** loan guarantee program. Pricing on a loan backing this technology would have to be about 300 basis points over LIBOR, says a deal watcher. This is about 50 bps over the market standard for renewables and reflects the market perception of the technology as novel. The sponsor will have

*(continued on page 12)*

## Innergex Looks For Long-Dated Hydro Debt

**Innergex Renewable Energy** is looking for roughly $590 million in debt financing for two groups of hydro projects in British Columbia and aims to secure a tenor of construction plus 40 years. The Longueuil, Quebec-based company is looking to match the tenor with the lengths of the power purchase agreements the projects have with **BC Hydro**. "The real challenge for 2013 will be to finance the two hydro clusters in B.C.," said **Jean Perron**, cfo and senior v.p. at Innergex, during a recent earnings call. "From early feedback from potential lenders, they will attain attractive terms and conditions."

The Upper Lillooet hydro project, which includes the 81.4 MW Upper Lillooet River facility and the 25.3 MW Boulder Creek in the Pemberton Valley, B.C., will take priority. The other cluster is the 40.6 MW Big Silver Creek and the 23.2 MW

*(continued on page 12)*

### At Press Time: Ex-WestLB Banker Joins Investec

**Mike Pantelogianis**, a former managing director at WestLB, is joining Investec as co-head of the power project and infrastructure finance team.

*See story, page 2*

### New Project Finance Loans

We've added updates to our weekly round-up of the latest project finance deals in the Americas, with details on projects, sponsors and debt.

*See Deal Book, page 4*

### Generation Sale DATABASE

Get the rundown on the latest asset trades in PI's weekly calendar, compiled from our exclusive Generation Sale Database.

*See calendar, page 3*

## IN THIS ISSUE



## AT PRESS TIME

# Pantelogianis To Join Cho At Investec

**Michael Pantelogianis** is joining **Investec Corporate & Institutional Banking** as co-head of the power project and infrastructure finance team alongside former **WestLB** colleague **Ralph Cho**. Pantelogianis accepted the offer last week and is expected to start in in the New York office today, says an observer.

Cho joined Investec in early February to help build out its project finance team (*PI, 2/4*). The firm was looking for a second co-head because **Jamie Manson** had left for **Brookfield financial Corp.**, **John Casola**, head of project and infrastructure finance at Investec Corporate & Institutional Banking in Toronto, told PI.

Pantelogianis was managing director at **Portigon Financial Services,** the successor organization to WestLB. He left in August (*PI, 8/21*).

Pantelogianis could not be immediately reached at his new office.

## THE BUZZ

Two noteworthy project financings are now in the market and both will be worth following. Canadian sponsor **Innergex** is looking for a 40-year tenor for the $590 million debt financing it needs to build four hydro facilities in British Columbia (see story, page 1). It is the same duration as the power purchase agreements the company has inked with **BC Hydro**. Institutional investors have been partial to the long-dated, steady payments on that type of debt. **BrightSource Energy** has another solar thermal power tower project for which it needs debt and equity. The project joins its Hidden Hills and **SolarReserve**'s Rice facilities in trying to be the first project utilizing the technology to secure financing in the U.S. without a **Department of Energy** loan guarantee (see story, page 1).

It also appears that **Sempra U.S. Gas & Power** is closing in on a financing backing its 250 MW Copper Mountain III solar photovoltaic facility in Boulder City, Nev. (see story, page 5). The sponsor has tapped **Société Générale** and **Union Bank** to lead the financing, which looks likely to be a purely bank deal, bucking a trend that has seen sponsors like **MidAmerican Solar** and **AES Renewables** tap the debt capital markets for solar financing in recent times. The spike in bond issuances backing projects was duly noted by ratings agency **Standard & Poor's**, which doubled its activity apropos power project bond ratings in 2012 year-on-year (see story, page 5).

**EmberClear**, a Calgary-based developer, is looking to sell its Good Spring combined cycle project in Schuylkill, Pa., to an entity that wants to own it long-term. The shop has arranged a financing package for the project that a new owner can use or opt instead for a package with its preferred lenders.

Power Intelligence

**EDITORIAL**

**Steve Murray** *Editor*

**Tom Lamont** *General Editor*

**Peter Thompson** *Executive Editor (Chicago)* (773) 439-1090

**Sara Rosner** *Managing Editor* (212) 224-3165

**Nicholas Stone** *Senior Reporter* (212) 224-3260

**Holly Fletcher** *Senior Reporter* (212) 224-3293

**Katie Segreti** *Data Editor*

**Kieron Black** *Sketch Artist*

**PRODUCTION**

**Dany Peña** *Director*

**Deborah Zaken** *Manager*

**Melissa Figueroa, James Bambara** *Associates*

**Jenny Lo** *Web Production & Design Director*

**ADVERTISING**

**Patricia Bertucci** *Associate Publisher* (212) 224-3890

**PUBLISHING**

**Emmanuelle Rathouis** *Marketing Director*

**Vincent Yesenosky** *Head Of U.S. Fulfillment* (212) 224-3057

**Nina Bonny** *Customer Service Manager* (212) 224-3433

**SUBSCRIPTIONS/ ELECTRONIC LICENSES**

One Year $3,147 (In Canada add $30 postage, others outside U.S. add $75)

**Ken Lerner** *Account Executive* (212) 224-3043

**REPRINTS**

**Dewey Palmieri** *Reprint & Permission Manager [New York]* (212) 224-3675 dpalmieri@Institutionalinvestor.com

**CORPORATE**

**John Orchard** *Managing Director, Capital Markets Group*

**Customer Service**
PO Box 4009, Chesterfield, MO 63006-4009, USA
Tel: **1-800-715-9195**
Overseas dial: **1-212-224-3451**
Fax: **212-224-3886**
UK: **44 20 7779 8704** Hong Kong: **852 2842 8011**
E-Mail: customerservice@iiintelligence.com

**Institutional Investor Hotline**
(212) 224-3570 and (1-800) 437-9997 or Hotline@iiintelligence.com

**Editorial Offices** 225 Park Avenue South, New York, NY 10003

Power Finance & Risk is a general circulation newsweekly. No statement in this issue is to be construed as a recommendation to buy or sell securities or to provide investment advice.



**Postmaster**
Please send all undeliverable Mail and changes of addresses to:
PO Box 4009 Chesterfield, MO 63006-4009 USA

Institutional Investor Intelligence

Generation Sale DATABASE

## GENERATION AUCTION & SALE CALENDAR

These are the current live generation asset sales and auctions, according to *Power Intelligence*'s database. A full listing of completed sales for the last 10 years is available at www.powerintelligence.com/AuctionSalesData.html

| Seller | Assets | Location | Advisor | Status/Comments |
|---|---|---|---|---|
| ▶ ArcLight Capital Partners | Various (2.8 GW Gas) | Georgia | Citigroup, Barclays | Bids due the first week of April (see story, page 6). |
| Atlantic Power Corp. | Auburndale (153 MW Cogen)<br>Lake (121 MW Cogen)<br>Pasco (121 MW Cogen) | Polk County, Fla.<br>Umatilla, Fla.<br>Dade City, Fla. | None | Quantum Utility Generation is paying $136 million cash for the plants (PI, 2/11). |
| Atlantic Power Corp. | Path 15 (84-mile Transmission) | California | Rothschild | A joint venture between Duke Energy and American Transmission Co. is buying the line (PI, 3/18). |
| Deutsche Bank, Katabatic Power Corp. | Banks Island (1 GW Wind project) | British Columbia | None | Newly founded shop is buying the shelved project in anticiption of load growth (PI, 1/21). |
| Diamond Generating | Stake (1,178 MW Kiowa CCGT) | Oklahoma | Citigroup | Co-owner Tenaska bought out the stake (PI, 1/21). |
| Dominion | Brayton (1,536 MW Coal, Oil, Gas)<br>Kincaid (1,158 MW Coal)<br>50% Stake (1,424 MW Elwood Peaker) | Somerset, Mass.<br>Kincaid, Ill.<br>Chicago, Ill. | Citigroup, Morgan Stanley | ECP is buying the assets; CS will lead the financing (PI, 3/18)). |
| EDF Renewable Energy | 50% Stake (201 MW Lakefield Wind) | Minnesota | TBA | TAQA is buying EDF's position as a lessee (PI, 1/21). |
| ▶ EmberClear | Good Spring (300 MW Gas) | Good Spring, Pa. | CCA Capital | Teasers recently released (see story, page 6). |
| Energy Investors Funds | Stake (550 MW Astoria Energy II) | Queens, N.Y. | Barclays | Teasers are out (PI, 12/10). |
| Energy Investors Funds | Rathdrum (275 MW Gas)<br>Plains End I & 2 (228.6 MW Gas)<br>Stakes (245 MW Cottage Grove Gas)<br>Stakes (249 MW Whitewater Gas) | Rathdrum, Idaho<br>Arvada, Colo.<br>Cottage Grove, Minn.<br>Whitewater, Wis. | Scotiabank | Tyr, John Hancock and Prudential are buying the assets (PI, 3/11). |
| Enova Power Group | Plainfield (37.5 MW Biomass) | Plainfield, Conn. | UBS | Prospective buyers went to an on-site presentation in late Dec (PI, 12/24). |
| FirstEnergy | Various (1,181 MW Hydro) | Ohio, Virginia, Pennsylvania | Goldma Sachs | Plans to sell the assets by year end (PI, 3/4). |
| GDF SUEZ Energy North America | Stakes (1,341 MW Hydro) | Northeast | TBA | Project level stake may be up for grabs as part of a parent-led divestiture program (PI, 1/28). |
| Iberdrola Renewables | Various (Wind, Solar) | Various | JPMorgan, Blackstone | The Spain-based parent is driving the sale of 700 MW of spinning wind plus wind, solar development assets (PI, 7/16). |
| Invenergy | Stakes (1.5 GW Wind) | Various | None | Caisse de depot has taken a $500M equity stake in 13 farms (PI, 1/14). |
| JPMorgan Capital Corp. | Tax Equity Stakes (524 MW Wind Portfolio) | Texas | JPMorgan | It's selling its tax equity stakes in a trio of wind farms owned by AES (PI, 1/21). |
| LS Power | Blythe (507 MW CCGT) | Blythe, Calif. | Bank of America | First round bids came in the week of 1/14 (PI, 1/28). |
| KeyCorp | Stakes (Blue Canyon, Caprock Wind) | New Mexico, Oklahoma | TBA | Fellow tax equity investors JPMCC and Threshold Power are buying out the stakes (PI, 2/18). |
| Maxim Power Corp. | CDECCA (62 MW Gas)<br>Forked River (86 MW Gas)<br>Pawtucket (64.6 MW Gas)<br>Pittsfield (170 MW Gas)<br>Basin Creek (53 MW Gas) | Hartford, Conn.<br>Ocean River, N.J<br>Pawtucket, R.I.<br>Pittsfield, Mass<br>Butte, Mont. | Credit Suisse | First round bids due between 2/18-2/15 (PI, 2/11). |
| NRG Energy, Paragon | Saguaro (90 MW Cogen) | Henderson, Nev. | None | Has been quietly trying to sell the plant (PI, 1/28). |
| NextEra Energy Resources | Forney (1,792 MW Gas)<br>Lamar (1,000 MW Gas) | Forney, Texas<br>Paris, Texas | TBA | NextEra is looking for about $1B in debt and commodity hedges and may look to sell (PI, 3/18). |
| Olympus Power, Metalmark Capital | Brooklyn Navy Yard (Stake, 286 MW Gas) | Brooklyn, N.Y. | Credit Suisse | EIF has agreed to buy the plant, which was damaged by Hurricane Sandy (PI, 1/14). |
| Pattern Energy | Various (1 GW Wind) | North America | Morgan Stanley | First round bids have come in for up to 49% of the wind portfolio (PI, 2/25). |
| PPL Corp. | Various (604 MW Hydro)<br>Colstrip (529 MW Coal)<br>Corette (153 MW Coal) | Various, Montana<br>Colstrip, Mont<br>Billings, Mont. | UBS | The utility holding company is selling its unregulated Montana operations (PI, 11/12). |
| Project Resources Corp. | Ridgewood (25 MW Wind) | Minnesota | Alyra Renewable Energy Finance | PRC is looking to sell up to 50% of its lessee position in the farm (PI, 2/18). |
| Ram Power | Geysers (26 MW Geothermal) | Healdsburg, Calif. | Marathon Capital | In talks with several buyers amid a reorganization (PI, 2/4) |
| Rockland Capital | Harquahala (1 GW Gas) | Maricopa County, Ariz. | Goldman Sachs | FERC has rejected Wayzata's bid to buy it (PI, 3/18). |
| Sempra U.S. Gas & Power | Mesquite Power (1,250 MW Gas)<br>Copper Mountain 1 (58 MW Solar)<br>Copper Mountain 2 (150 MW Solar) | Arlington, Ariz.<br>Boulder City, Nev.<br>Boulder City, Nev. | TBA | Salt River Project financed its 50% stake with cash (PI, 3/11).<br>Infrastructure funds make up the bulk of first round bids for the solar assets (PI, 1/14). |

▶ **New or updated listing**

*The accuracy of the information, which is derived from many sources, is deemed reliable but cannot be guaranteed. To report updates or provide additional information on the status of financings, please call Senior Reporter **Holly Fletcher** at (212) 224-3293 or e-mail hfletcher@iiintelligence.com.*

## PROJECT FINANCE DEAL BOOK

Deal Book is a matrix of energy project finance deals that Power Intelligence is tracking in the energy sector. A full listing of deals for the last several years is available at http://www.powerintelligence.com/projectfinancedeal.html

### Live Deals: Americas

| Sponsor | Project | Location | Lead(s) | Loan | Loan Amount | Tenor | Notes |
|---|---|---|---|---|---|---|---|
| AES Gener | Cochrane (532 MW Coal) | Chile | TBA | TBA | $1B+ | TBA | Sponsor rounds up banks, ECAs (PI, 11/26). |
| | Alta Maipo (531 MW Hydro) | Chile | TBA | TBA | ~$1B | TBA | IFC, IDB and OPIC are participating in multilateral tranche. Sponsor also talking to commercial lenders (PI, 7/2). |
| Alterra | Dokie II (156 MW Wind) | Fort St. John, B.C. | TBA | Expansion | $300M | TBA | The sponsor is hoping to close the financing in the next few months (PI, 9/24). |
| | Upper Toba (124 MW Hydro) | Toba Valley, B.C. | TBA | Expansion | $40M | TBA | Sponsor is looking for project equity (PI, 9/10). |
| BluEarth Renewables | Bow Lake (60 MW Wind) | Algoma, Ontario. | TBA | TBA | $80M | TBA | Sponsor will be bringing a few deals to market this year (PI, 1/21). |
| BrightSource | Hidden Hills (500 MW Solar) | Hidden Hills, Calif. | TBA | TBA | TBA | TBA | Sponsor has an offtake agreement with Southern California Edison for the Hidden Hills project. |
| ▶ | Palen (500 MW Solar) | Riverside County, Calif. | TBA | TBA | ~$1.6B | TBA | Sponsor is looking to close the deal by Q4 this year (see story, page 1). |
| Cameron LNG | LNG Export Facility | Hackberry, La. | TBA | TBA | ~$4B | TBA | Sponsor has tapped RBS as financial advisor as it looks to line up lenders (PI, 1/14). |
| Cape Wind Associates | Cape Wind (420 MW Wind) | Nantucket Sound, Mass. | BTMU | TBA | TBA | TBA | Developer taps BTMU to lead the financing (PI, 2/18). |
| Cheniere Energy | Sabine Pass Trains 3 & 4 (LNG) | Sabine Pass, La. | TBA | TBA | $3B | TBA | The sponsor is looking to close the deal in the first half of 2013 (PI. 1/7). |
| Competitive Power Ventures | St. Charles (660 MW Gas) | Charles County, Md. | TBA | TBA | $500M | TBA | Sponsor talking with banks for a club deal and may consider a bond component (PI, 9/17). |
| Coronado Power | Edinburg (700 MW Gas) | Edinburg County, Texas | TBA | TBA | $650M | TBA | The new shop will fire up the financing after some of the final permits are issued (PI, 12/3). |
| EDF Renewable Energy | Rivière-du-Moulin (350 MW Wind) | Quebec, Canada | TBA | TBA | TBA | TBA | The total investment needed for the project will be $800 million (PI, 3/11). |
| EmberClear Corp. | Good Spring (300 MW Gas) | Schuylkill Country, Pa. | CCA Capital | TBA | $400M | TBA | Sponsor taps Boston-based CCA Capital to manage both the debt and equity sale (PI, 12/24). |
| Energy Investors Funds | Pio Pico (300 MW Gas) | San Diego County, Calif. | SocGen | TBA | $300M | TBA | The sponsor has tapped Société Générale to lead the financing (PI, 10/1). |
| FGE Power | FGE Texas (726 MW Gas) | Westbrook, Texas. | TBA | TBA | TBA | TBA | The first-time developer is looking for both debt and equity partners (PI, 3/18). |
| Genesis Power | Keys Energy Center (750 MW Gas) | Brandywine, Md. | TBA | TBA | TBA | TBA | EIF is taking an equity stake in the project (PI, 3/4). |
| Geronimo Wind Energy | Black Oak and Getty (42 MW & 40 MW Wind) | Stearns County, Minn. | TBA | TBA | ~$150M | TBA | The sponsor is waiting to secure an offtake agreement (PI, 12/17). |
| Greengate | Blackspring Ridge I (300 MW Wind) | Lethbridge, Alberta. | Citigroup | TBA | ~$600M | TBA | Sponsor may be looking for financing or to sell (PI, 9/10). |
| ▶ Innergex | Four Projects (170.5 MW Hydro) | B.C., Canada | TBA | TBA | $590M | 40-yr | Sponsor is looking to tap lifecos to match the tenor of the debt to the length of the PPAs (see story, page 1). |
| K Road Power | Moapa (350 MW Solar) | Clark County, Nev. | TBA | TBA | $1B+ | TBA | The sponsor is looking to line up mezzanine debt before a tax equity tranche (PI, 3/11). |
| MidAmerican Solar | Antelope Valley (579 MW Solar PV) | Kerm & L.A. Counties, Calif. | Goldman Sachs | TBA | TBA | TBA | The full project price tag is around the $2.3 billion mark (PI, 3/4). |
| Moxie Energy | Moxie Liberty (850 MW Gas) | Bradford County, Pa. | TBA | TBA | $800M | TBA | The plant may be financed merchant by the team, made up largely of AES Corp alum (PI, 10/22). |
| NextEra Energy Resources | Various (Wind) | U.S. | TBA | Refi | TBA | TBA | The sponsor has been talking with lenders to refinance a portfolio of about 10 wind projects (PI, 10/1). |
| | Limon I & II (400 MW Wind) | Colorado | N/A | N/A | N/A | N/A | State Street, JPMorgan, Bank of America and Wells Fargo make tax equity investments in the projects (PI, 11/5). |
| OCI Solar Power, CPS Energy | Alamos I - V (400 MW Solar) | Texas | TBA | Term | ~$500M | TBA | Sponsor heads straight back into the market looking to fund the next two phases (PI, 3/18). |

▶ **New or updated listing**

*The accuracy of the information, which is derived from many sources, is deemed reliable but cannot be guaranteed. To report updates or provide additional information on the status of financings, please call Senior Reporter Nicholas Stone at (212) 224-3260 or e-mail nicholas.stone@iiintelligence.com.*

## PROJECT FINANCE

# Bicent Shops B Loan For Colo. Plants

**Bicent Power** is looking for an $83 million, seven-year term loan B to refinance the debt on two generation facilities in Brush, Colo. "They are looking to do a small amortization and a high cash sweep, which is pretty straightforward," says a deal watcher. "They want to monetize the cash flows."

The plants are the 147 MW Brush 4 combined cycle facility that is contracted until September 2022 and the 90 MW CCGT Brush unit 1 that is contracted until April 2017. Bicent Power is a subsidiary of **Bicent Holdings**, the independent power producer affiliate of **Paul Prager**'s **Beowulf Energy**.

**Public Service Company of Colorado**, a subsidiary of **Xcel Energy**, planned to buy the facilities in August last year from **Bicent Power** for $75 million (*PI, 8/9*), but that sale fell through, according to a spokesman from the PSC in Denver. The facilities weren't part of the package that entered Chapter 11 protection when Bicent filed for bankruptcy last year after breaching a covenant when it missed a term loan payment (*PI, 4/24*).

**David Nadelman**, managing director of syndicated and leverage finance at **RBC Capital Markets**, will be handling the deal. The loan will have a 1% scheduled amortization with a 100% cash sweep. Nadelman did not respond to calls by press time. Calls placed to officials at Bicent and parent company Beowulf were also not returned.

**Moelis & Co**. was advising Bicent on its bankruptcy and restructuring process (*PI, 7/26/11*). The plants were acquired as part of a $636 million portfolio from **MDU Resources**' **Centennial Power** in 2007.

# S&P Sees Project Bond Rating Numbers Double

**Standard & Poor's** saw double the number of project bond ratings in 2012 versus 2011—underscoring the dramatic surge in non-bank funding. "There have been changes in pricing that have weakened the banks advantage," **Trevor D'Olier-Lees**, director of U.S. utilities and infrastructure, said on a webinar hosted by the agency.

The shortening of bank loan tenors and the impact of Basel III on European project finance lenders have pushed more project financings into the capital markets. There has also been a a greater reliance on Asian banks, more regional bank activity and a re-emergence of large U.S. banks that have not been active in project finance for over a decade, added D'Olier-Lees. About one-third of power project debt sourced in the fourth quarter last year came from the debt capital markets (*PI, 3/15*).

"The growth in capital markets participation only really began at the start of last year," said D'Olier-Lees. "We saw the bank and capital market option, but it is increasingly becoming just the capital market option."

**Mark Habib**, a credit analyst at S&P, spoke about the potential $30 billion worth of financing needed in the next one to four years backing natural-gas liquefaction export facilities. "This is a big opportunity for developers and for financings," he said. He did warn that the commodity had a track record of extreme volatility, however.

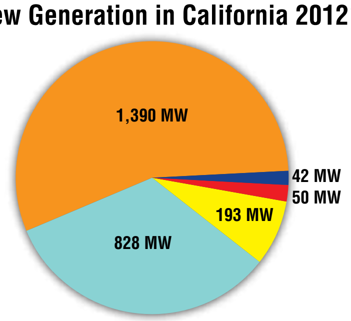
# Sempra Taps Leads For Solar

**Sempra U.S. Gas & Power** has reportedly tapped **Union Bank** and **Société Générale** to lead the financing backing its $600 million, 250 MW Copper Mountain III solar photovoltaic project in Boulder City, Nev. "This is really one of the first big deals of the year and with not a lot of deal flow and a lot of banks looking to close deals, it could be well over-subscribed and you might see a tighter margin to get everyone in," says a deal watcher.

Pricing, given the sponsor, could start at LIBOR plus 225 basis points before stepping up every few years, says another financier. Sempra is a strong sponsor with a good reputation, he adds.

The purely bank deal would buck a recent trend for solar facilities using dual bank, bond tranches (*PI, 3/15*). Sempra landed a $130 million, 18-year bank loan for its 92 MW Copper Mountain II project, with the tenor on that financing possibly enticing the sponsor to forgo bonds, according to deal watchers. The deal backing Copper Mountain II priced at LIBOR plus 250 basis points, with **Bank of Tokyo-Mitsubishi UFJ**, **Crédit Agricole** and **Sumitomo Mitsui Banking Corp**. participating (*PI, 6/28*).

**New Generation in California 2012***



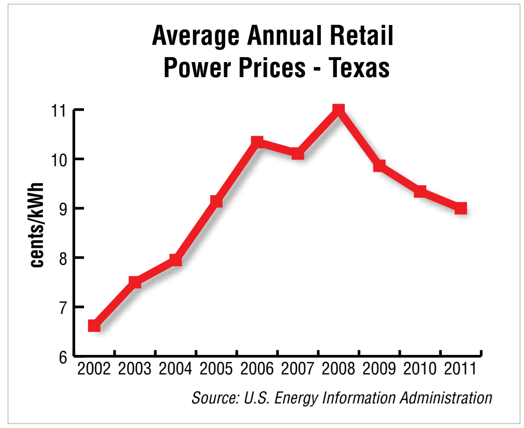

* *Through November*

*Source: U.S. Energy Information Administration*

Construction is expected to begin next month and will be completed in late 2015. Copper Mountain III is the fourth utility-scale renewable energy project that Sempra has developed in Boulder City. When it is complete, the combined capacity will exceed 450 MW. Inquiries to officials at Sempra were not returned by press time. Union Bank and Société Générale officials declined comment on the deal. The San Diego-based sponsor started looking for the financing last year (*PI, 12/14*).

Sempra inked 20-year power purchase agreements for the project with the cities of Los Angeles and Burbank via the **Los Angeles Department of Water and Power** late last year.

## Pattern Panhandle Pricing Emerges




Pricing on **Pattern Energy**'s $500 million bridge loan backing its 322 MW project in the Texas Panhandle is slated to start at LIBOR plus 200 basis points and bump up to LIBOR plus 225 bps after an undisclosed length of time. The loan for the project in Carson County will be taken out by a tax equity investment following the construction period (*PI, 2/1*).

Pattern has tapped **BayernLB**, **Crédit Agricole** and **NordLB** to lead the financing (*PI, 2/28*). The San Francisco-based sponsor is looking to secure a power purchase agreement in the next two years during the construction period. Pattern already has a power hedge in place, although details could not be learned. The company has also reportedly selected the tax equity investor to take out the loan, but its identity could not be learned by press time.

Pattern is said to have pushed the project into construction to take advantage of the extension of the production tax credit (*PI, 1/3*). Pattern and bank officials have declined to comment on the deal, citing confidentiality agreements.

**MERGERS & ACQUISITIONS**

## Southeast PowerGen Bids Set For April

**ArcLight Capital Partners** is expecting initial bids for its Georgia-based Southeast PowerGen portfolio company to come in the first week of April. The timeline is deisgned to allow the private equity shop and its advisors to set up meetings with prospective buyers in Las Vegas during **Platts'** *28th Annual Global Power Markets Conference* the following week, says an investor considering placing a bid. **Citigroup** and **Barclays** are advisors.

ArcLight owns 50.1%, with **GE Energy Financial Services** and **Government of Singapore Investment Corp.**, each holding 24.95%. The company is being marketed as a full 100% sale and both GE EFS and GIC have waived their first rights of refusal. That should get a better price for the portfolio, says an observer. GIC could stay on with a new owner if a buyer makes a strong push for just a majority stake although GE EFS is likely to exit, say observers.

**FAST FACT**

The auction is expected to be competitive because it's a mostly contracted portfolio and because **Georgia Power** is planning to retire 2 GW of coal-fired generation in the coming years.

The auction is expected to be competitive because it's a mostly contracted portfolio and because **Georgia Power** is planning to retire 2 GW of coal-fired generation in the coming years. The six-plant portfolio totaling 2.8 GW includes simple cycle and combined cycles around the state that are mostly contracted although one, the 640 MW Sandersville simple cycle in Sandersville, Ga., was merchant as of the fall (*PI, 3/1*). The uncontracted plant is enough to give investors with strict eye for contracted assets pause, says one investor weighing placing a first round bid.

Spokesmen for the advisors could not immediately comment and an ArcLight spokeswoman did not reply to an inquiry.

## Calgary Shop Floats CCGT Project Sale

**EmberClear** is looking to bring in a co-investor or sell its $400 million Good Spring gas-fired project in Schuylkill County, Pa. The project could go into construction late this year and EmberClear would like to have a new owner or co-investor by that time. The shop is working with Boston-based boutique **CCA Capital**.

This round of teasers was released within the last few weeks although the company has been talking with prospective investors for the last nine months. **Jamie Stahle** and **Andrew Briggs**, both managing directors at CCA, are running the sale.

The project is a 300 MW combined cycle project that will likely have five-year gas and power contracts, according to the teaser. EmberClear does not have any contracts in place and is open to other offtake arrangements. The project has its local and state permits and is awaiting a modified air permit.

The sale process will include an initial around of due diligence followed by a diligence period for select entities. Lenders are interested in who will join or take over the project as financing a plant with merchant exposure is typically best arranged by an experienced sponsor, says one financier.

Calgary-based EmberClear tapped CCA late in the year to advise on the debt and equity raise (*PI, 12/18*). The company is targeting a 70:30 debt-to-equity ratio (*PI, 9/26*).

**Albert Lin**, ceo of EmberClear, was traveling and could not immediately comment. Stahle did not immediately respond to inquiries.

## STRATEGIES

# Dynegy Plots B Loan Refi

Dynegy wants to take advantage of the current rates in the capital markets to refinance about $1.3 billion in term loan Bs in the coming months. The company is planning to refinance two B loans arranged in its restructuring: an $837 million loan at its GasCo unit and a $517 million loan at its CoalCo unit, that are priced at LIBOR plus 775 basis points.

Dynegy would like to strike while the institutional loan market is still replete with investor appetite, although its recent agreement to purchase **Ameren**'s 4.1 GW merchant coal-fired fleet may push out the timeline. "It's a great credit market for borrowers like us right now, but we just introduced some new variables to [the process]," says, **Katy Sullivan**, spokeswoman in Houston, adding that investors may need some time to look over the details of the transaction to get comfortable with the company's expected generation profile.

The deal with Ameren brings an extra $825 million of senior secured debt although that unit will be ring-fenced from the parent (*PI, 3/14*).

Sullivan anticipates that a refinancing could consist of a mix of B loans, unsecured notes as well as revolvers and credit facilities. Dynegy will look to handful of relationship lenders to lead the transactions. Banks have not yet been tapped.

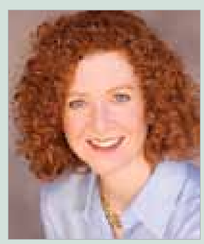
Dynegy made a $325 million prepayment in the fourth quarter on its B loan debt due in 2017. It emerged from bankruptcy in October.

The company secured a $150 million revolver in January at LIBOR plus 325 bps. **Royal Bank of Canada**, **Barclays**, **Citigroup**, **Deutsche Bank**, **Goldman Sachs** and **UBS** arranged the revolver.

## INDUSTRY CURRENT

# Energy Storage: Clearing the Path for a Breakthrough – Part II

THE SECOND INSTALLMENT OF THIS WEEK'S INDUSTRY CURRENT *is written by **Kerin Cantwell** and **Miles Killingsworth**, partner and associate, respectively, in **Akin Gump Strauss Hauer & Feld**'s global project finance practice in Los Angeles and **George "Chip" Cannon, Jr.**, partner in the firm's energy regulatory practice in Washington D.C. For the first installment, visit the features page at www.powerintelligence.com.*



*Kerin Cantwell*

*Miles Killingsworth*

*George Cannon Jr.*

### Who Are the Stakeholders in Energy Storage?

As ratepayers, of course, we all are. In California, for example, retail electricity consumers are represented by the CPUC **Division of Ratepayer Advocates**. Other key stakeholders in the uses, valuation, cost recovery and return on investment in energy storage systems are the independent system operators and regional transmission operators which operate the regional grids and the organized power markets, other balancing area authorities, utilities, independent power producers, independent transmission providers, distribution companies, ancillary services providers, energy storage technology companies, "technology agnostic" energy storage system suppliers, and state and federal policymakers, lawmakers and regulators. Additional interested parties include energy storage trade associations, consumer advocacy groups and environmental protection organizations.

There has been some mischaracterization of AB 2514 in the media, some of which have reported that AB 2514 will or is likely to result in energy storage mandates similar to the renewable portfolio standards or goals in place in 40 states, Washington, D.C. and 4 U.S. territories. AB 2514 directs the CPUC to determine appropriate targets, *if any*, for each load-serving entity within California to procure viable and cost effective energy storage systems. To date, the California investor-owned utilities and the Division of Ratepayer Advocates, as well as many other stakeholders, are unified in their opposition to RPS-like energy storage mandates. Certain other stakeholders, such as the **California Energy Storage Alliance** and the **Sierra Club**, support energy storage procurement targets for the reasons set forth in the next section.

### Commercialization of Energy Storage and the Regulatory and Market Barriers to Its Economically Feasible Deployment

For each of the "end-uses" for energy storage, there is a market driver creating demand for that use. The challenge for regulators and stakeholders is to figure out the relationships among energy storage uses, the optimal technology for the particular use, the cost of the technology, and the market value of that use.

For example, the increased penetration of renewable energy – an intermittent, variable resource – creates stress on the grid. When a cloud passes over a solar photovoltaic power plant, the sudden disparity between supply and load must be

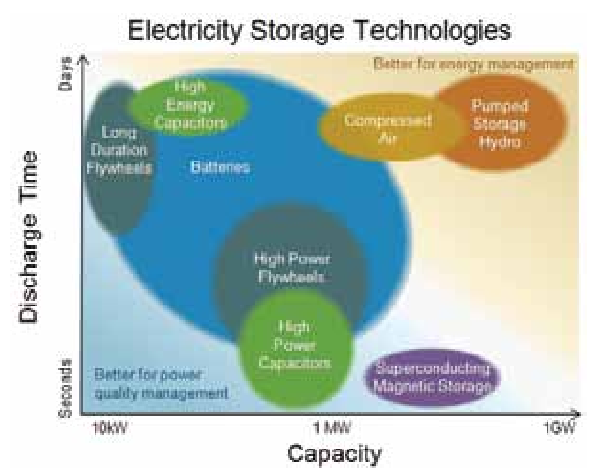
balanced by injecting additional energy into the grid, a process known as "frequency regulation." There is value for the rapid and accurate frequency regulation promised by certain energy storage technologies, but this value must be quantified, choices need to be made about what technology will best meet the need for frequency regulation, who can or should own that particular energy storage solution, and who makes these decisions.

With effective storage, energy can also be generated and stored off-peak (for example, at night when wind assets are most productive but electricity demand is low) and scheduled and discharged at peak demand times of day. This energy shifting to reduce generation costs (energy arbitrage) has a very different value than frequency regulation. Other end-uses present separate market demand and potential value to stakeholders. At the transmission level, energy storage that is used for peak capacity support can be valued at the deferred cost to add or upgrade transmission facilities. In a nodal pricing market such as California's, energy storage located in a constrained part of the transmission system will have a higher market value than energy storage located in a less congested area. At the distribution level, energy storage systems can be used for many purposes, but can be particularly valuable for automatic islanding during a grid outage, for example, in severe weather conditions or in the event of an intentional attack on the grid. Growing electric vehicle market acceptance will put more stress on the distribution system as cars are charged primarily at night, although smart-grid technologies may allow the grid operator to remotely control charging and discharging of electric vehicles and home appliances to meet system needs.

Most of the policy debate among stakeholders has focused on whether an energy storage procurement mandate should be implemented. Given the complexity of the analysis required to value energy storage systems, most utilities and ratepayer advocates oppose such mandates. They argue that mandates will fail to remove legal and regulatory barriers to cost-effective energy storage and distort the market, creating short-term profit incentives for investors and long-term dependency on those incentives. Such policies would result in a misallocation of resources to regulatory affairs rather than research and development—better, they argue, to implement policies that create a level playing field and a competitive market. On the other hand, proponents of procurement mandates argue that a statutory requirement for procurement is the best way to ensure effective implementation. Some of these proponents, including the California Energy Storage Alliance, favor mandates as a policy tool analogous to RPS targets. Others, including the Sierra Club, argue that mandates need not be based on a specific quantity of energy storage to be procured by load-serving entities, but could use other criteria such as reduction in peak load or certain air pollutants. Opponents counter that renewable energy provides non-monetary benefits to society (air pollution reduction) that justify a subsidy policy to promote the industry, even though renewables may be uneconomic when compared to fossil fuels. They argue that, unlike renewables, energy storage has location and technology-specific value, which a mandate would not capture. Parties on all sides of the debate seem to agree that the need for energy storage is here and growing. Estimates of the California ISO's storage needs to safely operate the grid in 2020 range from 3,000 to 4,000 MW (not including pumped hydro) – more than 450 times the current installed capacity of 6.5 MW.

### FERC's Role in Energy Storage Regulation

FERC has jurisdiction over the sale at wholesale and transmission of electricity in interstate commerce, including the provision of energy storage services into the bulk power grid. Among other things, FERC must determine that the rates and terms and conditions under which jurisdictional services are provided are "just and reasonable." While FERC has taken a number of steps over the past few years to address the unique regulatory issues posed by energy storage, in particular with respect to the appropriate compensation mechanisms for providing storage services, it has yet to formulate a comprehensive policy. Indeed, given the multiple storage technologies and the differing benefits they provide to the grid, it is unlikely that a single comprehensive policy is warranted. FERC's efforts thus far have been in large part focused on evaluating the appropriate ratemaking treatment for energy storage projects given that the historic regulatory paradigm



Source: Akin Gump

for the electricity industry was designed around the three traditional business functions in the industry: production, transmission, and distribution. Storage does not fit neatly or exclusively within one of those distinct business models.

In 2006, FERC deferred ruling on a request by **Nevada Hydro** to treat its proposed Lake Elsinore Advance Pump Storage project as a transmission asset for rate recovery purposes, a request that presented an issue of first impression. FERC subsequently granted a request by **Western Grid Development**, an independent developer, to treat its proposed energy storage projects in California as wholesale transmission facilities, thereby making them eligible for the incentive ratemaking treatment made available pursuant to the Energy Policy Act of 2005 to encourage investment in transmission infrastructure. FERC announced in the Western Grid

# Power Intelligence

## Corporate Access Program

Save time and money by giving every member of your team competitive intelligence

In today's complex and changing environment it's imperative that every associate on your team has immediate access to reliable, customizable intelligence in order to maintain your competitive edge. The ***Power Intelligence* Corporate Access Program** provides everyone on your team with instant access to actionable news, features, data, and informed perspectives on financing and M&A in the US power industry.

**Every associate on your team needs to benefit from:**

### Actionable Intelligence

Highlighted news stories cover actionable, competitive intelligence in clearly organized categories. More then just news, insight into how it affects you.

### Market Data

Track sellers, buyers, plant locations and power pool regions and access details on current energy project finance deals. All crucial assets in your daily business.

### Special Features

In-depth perspectives on ongoing industry trends and happenings from key industry participants.

### Personalized Content

Tailored homepage and email alerts enable immediate access to the stories that matter most.

### Convenient Access

Clearly organized content accessible from your PC or mobile device, via the e-mail alerts, customizable homepage or weekly print issue.

### Community

Get a read on the industry or voice your opinion with snapshot polls and blogs on current market issues.

*Power Intelligence* will work with you to customize a service plan that meets your needs. For more information or to trial this service please contact:


John Diaz
(212) 224-3366
JDiaz@iiintelligence.com


www.PowerIntelligence.com


Institutional Investor

*Institutional Investor Intelligence, A Division of Institutional Investor LLC.*

order that a determination of whether a particular storage project would be categorized as a transmission asset, at least for purposes of determining eligibility for transmission incentive rates, would be made on a case-by-case basis after evaluating the facts of a particular project.

FERC's most recent attempts to clarify the ratemaking treatment of energy storage assets have been in the context of generic rulemaking proceedings. On June 11, 2010, FERC staff requested comments from the industry on the rate treatment of services provided by storage technologies. Staff initially noted that, while the traditional functions of generation, transmission and distribution assets within the electric grid are well understood and their cost recovery mechanisms well established, the same was not necessarily true for energy storage, especially given that storage technologies are often deployed by independent developers rather than vertically-integrated load-serving entities. Staff concluded that, "[u]nder appropriate circumstances, storage can act like any of the traditional asset categories, and also like load."

Based on the comments submitted in response to the FERC staff's request and to a subsequent FERC Notice of Inquiry, FERC issued a Notice of Proposed Rulemaking on June 22, 2012. The NOPR's primary focus is on fostering the development of competitive markets for the supply of ancillary services, which are generally defined as those services necessary to support the transmission of electricity from resources to loads while maintaining the reliability of system operations. As noted by the California Energy Storage Alliance, FERC's proposals would help reduce barriers to new market entrants, including energy storage technologies, that can provide ancillary services. The NOPR also proposed to revise FERC's Uniform System of Accounts to better account for and report transactions associated with energy storage assets. FERC's current accounting regulations and related reporting requirements were developed to capture financial and operational information aligned with the industry's traditional production, transmission and distribution functions. Because storage has operational characteristics of each of these distinct functions, and can provide multiple types of services simultaneously, FERC's proposed accounting and reporting revisions would potentially enable developers of storage assets to seek multiple methods of cost recovery for their investments.

On the same day it issued the NOPR, FERC issued a Final Rule in a rulemaking proceeding on the integration of variable energy resources into the grid. The increased deployment of generation resources that do not consistently produce power in relation to demand, such as solar and wind resources, has further underscored the system benefits to deploying storage assets that can be used to "bank" renewable energy for use during peak periods when demand, and prices, are highest. While the scope of the Final Rule was limited and not focused on the use of storage to firm up variable resources, it is nonetheless significant for advancing the regulatory discussion as to the optimization of such resources. The California Energy Storage Alliance commented in the proceeding that FERC should initiate a separate rulemaking dedicated exclusively to the use of energy storage to further integrate variable resources.

Of particular significance, FERC issued a Final Rule in October 2011 in a rulemaking proceeding regarding the compensation mechanism for the provision of frequency regulation in the electricity markets administered by RTOs and ISOs. Frequency regulation is generally provided by generators that respond to an RTO/ISO's automatic generator control signal, but can also be provided by storage providers that have the capability of ramping production up and down quickly. The Final Rule requires RTOs/ISOs to pay higher rates to companies that provide the fastest and most accurate frequency regulation service. While storage providers will not be the only beneficiaries of the Final Rule, FERC's policy is anticipated to play a significant rule in further encouraging the deployment of storage technologies.

While FERC has been formulating general policy with respect to the appropriate regulatory treatment of energy storage technologies to reduce the barriers to their market entry, the RTOs and ISOs and their stakeholders have been developing market rules and other structures to operationally integrate storage into their respective regions. For example, in May 2009 FERC accepted a proposal by the New York ISO to permit a new class of resources, referred to as Limited Energy Storage Resources, to participate in the day-ahead and real-time regulation services markets. In May 2010, the New York ISO issued a White Paper to further evaluate integration efforts given the statue of maturing storage technologies. Similarly, PJM, the independent administrator of the Mid-Atlantic regional grid, is currently evaluating the use of storage technologies to meet NERC reliability standards.

Another policy measure to promote energy storage at the federal level is the planned re-introduction of a bill in Congress that would allow a 20% investment tax credit for energy storage projects connected to the grid. According to recent media reports, the goals of the tax credit are to manage peak load needs more efficiently and to encourage the continued growth of renewable energy.

## Conclusion

The regulatory and policy regimes that will determine the future of energy storage in the U.S. are just beginning to take shape. At this point, active participation of all stakeholders—public *and* private—is critical: given the numerous applications, evolving technologies, competing market interests and complex analysis required to optimize energy storage implementation, a flexible and holistic strategy that combines bottom-up and top-down approaches, accounts for the interests of all stakeholders, and incorporates inter-agency knowledge sharing is necessary. Such a strategy would include the use of pilot projects, coordinated multi-agency rulemaking and market and stakeholder feedback based on real-world experience. Using a flexible approach in which regulations can be adjusted based on operational experience and cost-effectiveness would avoid the pendulum effect of unilateral decision-making and provide the highest and best value for all energy storage market participants and consumers.

## M&A Sees *(Continued from page 1)*

**Investments**, **Borealis Power Generation** and **PensionDanmark**. The influx of dollars and new players points to a market tipping in the favor of sellers, say investors and bankers, referencing the amount of competition for contracted solar assets and operational wind farms. Solar had a banner year with 51 assets trading, up from 15 in 2011.

*For the full report and additional data, visit the Generation Sale Database at http://www.powerintelligence.com/AuctionSalesData.html*

## BrightSource Hunts *(Continued from page 1)*

to tap a sizeable tax equity investment, along with other sources of capital, to get the projects done, say observers. **Natalie Schaefer Jackson**, v.p. of project finance and structured finance at BrightSource, will be handling the financing for the company. She did not respond to inquiries by press time. Abengoa officials in Seville, Spain did not respond to emails. The Spanish company's role in financing efforts could not be learned.

BrightSource is aiming for a debt-to-equity ratio similar to the ratio it secured for its $2.1 billion, 392 MW Ivanpah project in the Mojave Desert, Calif., with a little less debt, according to a company official. For Ivanpah, the sponsor snared a $1.6 billion loan under the DOE's loan guarantee program, while **Google** committed $168 million in equity and **NRG Energy** pledged $300 million toward that project (*PI, 4/13/11*). Other investors included **Alstom Power**, with a $55 million slug (*PI, 5/21*), as well as the **California State Teachers Retirement System**, **Morgan Stanley** and venture capital shops **Draper Fisher Jurvetson** and **VantagePoint Venture Partners**. BrightSource aims to replace the DOE funds with commercial bank debt, the official adds.

The company recently shelved plans to finance the 500 MW Rio Mesa project to focus on Palen and is also looking to fund its Hidden Hills project (*PI, 3/9*). **SolarReserve**, **KRoad Power** and **Sempra U.S. Gas & Power** are also looking for deals backing sizeable solar projects in the western U.S. (*PI, 2/1*). "It is another large deal in the marketplace, which is starting to get crowded," says a deal watcher, citing the number of sponsors looking for debt around the $1 billion mark and above. "Pulling it off will be quite hard, but it should get done."

BrightSource purchased Palen from **Solar Trust of America** for $10 million in cash plus an up to $20 million earn out (*PI, 6/22*). Construction is due to begin in the fourth quarter and the company is hoping to secure the financing before then, says the official. The project will utilize two of BrightSource's pipeline of 250 MW power purchase agreements that it has with **Southern California Edison** and **Pacific Gas & Electric**.

The Palen project consists of two, 250 MW units located in a U.S. **Department of Interior** Solar Energy Zone in Riverside County, Calif., which are swathes of the desert opened up by the government for the construction of solar projects. Palen can interconnect to the California grid at SCE's nearby Red Bluff substation, which is under construction and on schedule to be completed in December. Each unit at Palen will feature a 750-foot tall tower, with mirrors on individual poles placed directly into the ground to focus the sun's rays. The projects are expected to come online in 2016. ***—Nicholas Stone***

## Innergex Looks *(Continued from page 1)*

Tretheway Creek facilities north of Harrison Hot Springs, B.C.

"Innergex does good quality hydro and we are very interested," says a financier at a Canadian life insurance company. "We are more interested in long-dated hydro projects than other technologies, because there are so few opportunities to invest for that long term. The capacity in the market for them to get $590 million from life insurance companies alone is definitely there."

"A few years ago we bid the project with the expectation of securing project financing at about 7.25%," Perron said. He noted the final figure will probably be lower than that, due to the portfolio financing approach and overall better debt market pricing. Most recently, Innergex closed a C$168.5 million ($165.8 million) construction and term loan with a 39-year tenor for its 49.9 MW Kwoiek Creek hydro project in B.C. with a fixed interest rate of 5.075% (*PI, 7/19*). The **Manufacturers Life Insurance Company** was agent and lead lender on that deal, with the **Canada Life Assurance Company** and the **Great-West Life Assurance Company** participating. Officials from the companies declined to comment on the latest projects up for financing.

Innergex is evaluating alternatives and has not yet decided on lead arrangers or deal structures. Calls to Innergex officials and spokespeople were not returned by press time. Innergex is looking to raise a total $775 million in project financing this year. The sponsor is also developing the 24.6 MW Viger-Denonville wind project in Quebec.

## CONFERENCE CALENDAR

- **Platts** will host the 28th annual Global Power Markets Conference April 8-10 at the Wynn in Las Vegas.
- **Geothermal Energy Association** will be hosting the International Geothermal Energy Finance Forum April 11 at the Marriott Marquis in New York.
- **Bloomberg** will host the 6th annual Future Of Energy summit April 22-24 at the Grand Hyatt in New York.
- **Euromoney Seminars** will host the 10th annual Renewable Energy Finance Forum – Wall Street June 25-26 at the Waldorf Astoria in New York.

## ONE YEAR AGO

**Pattern Energy** was asking lenders to submit proposals for the financing of its 265 MW Ocotillo wind project in Imperial Valley, Calif. [The deal closed with a $490 million commercial bank facility with pricing at around LIBOR plus 250 basis points, as well as a 20-year, $110 million loan from the **North American Development Bank** (PI, 10/15).]