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Annual Preview & Review

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Happy Holidays!

Power Finance & Risk will not publish next Monday. Your next issue will appear Jan. 10. We wish all our readers a happy holiday season!

At Press Time

Caithness Energy and GE Energy Financial Services have wrapped the largest wind financing in the U.S. for their **Shepherds Flat** wind farm in Oregon.

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M&A SET TO TICK ALONG ON SHALE GAS...

Merger and acquisition deal flow for next year is forecast to be on par with the volume seen in 2010, with the hot spots likely to be natural gas-fired assets because of the low gas prices expected on the back of shale gas discoveries.

"The longer the economy and the markets remain at this level, people will be more willing to transact," says **Joseph Sauvage**, head of power investment banking at **Citigroup**. Transactions are expected to be in the \$500 million to \$1.5 billion range, with fewer of the splashy mergers that sprung up in 2010, says another M&A banker. Deals in that vein in 2010, which included PPL and E.ON U.S., **First Energy-Allegheny** and **Mirant-RRI Energy**, will be sparser as companies have fewer options, says a banker, noting that "most who want a date to the dance already have one."

(continued on page 11)

...AS THIN WIND FUNDS, PPAs STIR SALES

The paucity of financing and power purchase agreements over the last year will likely spur mergers and acquisitions in the wind sector as developers look for ways to fund project pipelines.

Late stage projects with PPAs and spinning fleets with cashflows will attract the greatest interest from buyers, who place little value on development assets, says a banker. "Development assets aren't an asset class as there's no guarantee they will pan out. If you're paying a premium for assets you don't want to pay a



(continued on page 12)

SOLAR FORECAST CALLS FOR MORE FINANCING



Bruno Mejean

A flurry of solar financings in North America is expected in 2011 and beyond amid a widening field of lenders, prolonged subsidies and falling panel prices.

"Subsidies are still needed... but we're heading to the point where subsidies won't be needed," says **Bruno Mejean**, **SunPower** financier in New York and **NordLB**'s former head of origination for the Americas. "Parity [between solar and other fuels] could be achieved in the U.S. in three to five years," he adds.

The rapid development of solar overseas will prompt a further decline in prices in the U.S., says **Brian Goldstein**, **BNP Paribas** head of project finance in the Americas. The cost

(continued on page 11)

Check www.iipower.com during the week for breaking news and updates.

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At Press Time

Caithness, GE Close Largest U.S. Wind Financing

Caithness Energy and GE Energy Financial Services have wrapped the largest wind financing in the U.S., a \$1.431 billion deal backing the roughly \$1.9 billion Shepherds Flat wind farm. Caithness and GE provided \$702 million in equity. Citigroup was lead left on the deal, with Bank of Tokyo-Mitsubishi UFJ, Royal Bank of Scotland and WestLB as joint bookrunners. The deal closed last week.

The financing consists of a \$675 million floating-rate tranche, a \$525 million private placement and a \$366 million fixed-rate package that includes \$231 million in letters of credit. Of the 14-year floating rate tranche, \$540 million is guaranteed by the U.S. Department of Energy loan guarantee under the Financial Institutional Partnership Program. Pricing could not be learned.

The private placement attracted a dozen institutional investors and was oversubscribed, a deal watcher notes. The placement carries a coupon of 4.97% and has a tenor of 21.5 years. About \$420 million of the bonds are guaranteed by the DOE loan guarantee and thus rated AAA, with the rest uncovered by the guarantee and rated BBB-. The leads targeted mostly insurance companies that typically buy BBB-type bonds, and the investment marked some of the investors' first participation in a wind financing. To attract investors and lenders, the leads placed the loan into trusts and then stripped it into a government-backed piece and a project piece.

BBVA, BayernLB, Banco Sabadell, Banco Santander, CoBank, Dexia Crédit Local, Helaba, Intesa Sanpaolo, Scotia Capital and United Overseas Bank participated in the \$366 million syndication—also oversubscribed—comprising a \$135 million term loan and \$231 million in letters of credit. The average ticket size was roughly \$20 million, with BayernLB, Dexia, Helaba and Scotia taking between \$35-\$40 million each. BBVA was the last to join, snagging a \$7 million ticket. About \$119 million of the letters of credit benefit

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**Institutional
Investor NEWS**
INTELLIGENCE FIRST

Happy Holidays from the staff of PFR



Left to right: Brian Eckhouse, Peter Thompson, Sara Rosner, Holly Fletcher, Steve Murray

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Merchant M&A Weighs On Low Prices, Demand

Merchant generation owners will likely look to sell this year if low power and electricity demand remain stagnant.

“The question that a lot of companies are asking is ‘Can I ride this out?’ or if I’m private equity, ‘Will this be worth less or more?’ Many entities are looking at these situations as ‘options’ where a decision is based on volatility and time,” says **Joseph Sauvage**, head of power investment banking at **Citigroup**. Some sellers—like **Tenaska** (PFR, 1/29)—that held onto merchant plants through the financial crisis could begin thinking about whether the time is ripe for a sale, especially if there is not a marked sense of an economic rebound around the corner, bankers say.

With low natural gas and power prices, many companies will continue to shift toward contracted power, leaving merchant generation to those with retail books or a bullish view on power demand. “We’ve been in this cycle before. It isn’t new. Everyone is asking the question, ‘Is this just a normal cycle or are we in a paradigm change?’” says **John Lange**, head of the global power & utilities investment banking group at **Barclays Capital**.

Strategic shoppers with merchant appetite will typically have retail obligations—think **NRG Energy** and **Constellation Energy** buying merchant plants in Texas—or existing operations in the area of a potential purchase, bankers say. **Energy Capital Partners** bought four plants in the Northeast—the **BG Group** trio and **Milford Power**—on expectations that power demand will rebound in the Northeast in the coming years, bankers say. Others, including **Capital Power**, have some appetite for merchant risk built into their generation profile (PFR, 6/2).

Tax Equity Players Return Tentatively

Tax equity remains a prized commodity despite several banks and investors tiptoeing back into the space. Only about half of the 16 participants in the market regularly invest in financings backing renewables projects, and those players tend to favor relationship developers and marquee sponsors, says **Eli Katz**, partner at **Chadbourne & Parke** in New York.

The paucity of tax equity was especially pronounced in the third and fourth quarter, when it appeared likely that the U.S. **Department of Treasury** cash grant program, which refunds renewables sponsors 30% of project costs 60 days after operation, would expire at year-end. The tax equity market, they said, simply couldn’t replace the potency of the grant, slowing already sluggish deal flow. “There’s a supply-demand imbalance,” Katz says. “There’s a lot more demand for the product than the supply.

So the tax equity investors can cherry-pick.”

Congress ultimately extended the grant program through Dec. 31, 2011 (PFR, 12/17), postponing a question bankers and developers fretted about: would investors would be willing to tap the investment tax credit or production tax credit to help finance renewables projects? “Having the cash grant [extended] makes a big difference,” says **Carl Weatherley-White**, **Barclays Capital** managing director of investment banking in New York. “Tax equity is complicated and hard to raise. The cash grant is faster, easier.”

Bank of America, **Key Bank**, **PNC**, **State Street** and **SunTrust** are among the investors that returned to tax equity in 2010, although not with the force of stalwarts **JP Morgan**, **GE Energy Financial Services**, **Union Bank** and **US Bank**. **Google** entered the tax equity market this year, but bankers doubt other companies outside finance will follow (PFR, 10/15). “What motivates Google is, they want to make a real difference in renewables,” Weatherley-White says. “They’re not just doing it for the tax benefits.”

Another struggle for tax-equity investment seekers: investing in renewables and transmission for tax relief isn’t as

TAX EQUITY PULSE 2010

Tax Equity Investors	Developer	Projects
GE Energy Financial Services	Exergy Development Group	183 MW Portfolio, Idaho (Wind)
Google	NextEra Energy Resources	120 MW Ashtabula II, Barnes County, N.D. (Wind) 49.6 MW Wilton Wind II, Burleigh County, N.D. (Wind)
JP Morgan	First Wind	60 MW Rollins, Penobscot County, Maine (Wind)
	Horizon Wind Energy	604 MW Portfolio, Iowa, Kansas, Oregon (Wind)
	NextEra Energy Resources	99 MW Meadow Lake II, White County, Ind. (Wind) 169.6 Peace Garden Wind Portfolio (Wind) 309 MW Heartland Portfolio (Wind)
MetLife	enXco	201 MW Lakefield, Jackson County, Minn. (Wind)
Mitsubishi UFJ Financial Group	enXco	201 MW Lakefield, Jackson County, Minn. (Wind)
New York Life Insurance Co.	Horizon Wind Energy	604 MW Portfolio, Iowa, Kansas, Oregon (Wind)
San Diego Gas & Electric	Grupo NaturEner	309 MW Rim Rock, Glacier and Toole Counties, Mont. (Wind)
US Bank	Solar Power Partners	Various (Solar PV)
	SunRun	Various (Solar PV)
Wells Fargo	Horizon Wind Energy	604 MW Portfolio, Iowa, Kansas, Oregon (Wind)

straightforward as other industries. “Other tax-enhanced industries are more favorable than the ITC, which is fragmented by wind, solar and biofuels,” says **Darren Van’t Hof**, **US Bank** director of renewable energy investments in St. Louis, Mo. “Low income housing, for instance, is singular.”

Some fresh faces may emerge in tax equity as banks and institutional institutions generate more taxable income as they recover from the 2008 financial collapse. Bankers declined to identify potential tax equity investors.

Annual Preview & Review

Completed Generation Asset Sales 2010

Generation Sale ■ DATABASE

The following is a directory of M&A deals that have closed in the power industry between Jan. 1 and Dec. 23. 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 closed deals for 2010, please contact Senior Reporter **Holly Fletcher** at (212) 224-3293 or email hfletcher@iinews.com. The full database is available at <http://www.iipower.com/GenerationSalePage.aspx>.

Buyer	Asset	Type	MW	Location	Seller	Purchase Price
ArcLight Capital Partners	Sandersville	Gas fired	640 MW	Sandersville, Ga.	KGen Power	
Atlantic Power	Cadillac	Biomass	38 MW	Cadillac, Mich.	ArcLight Capital Partners and Olympus Power	\$77 million
Brookfield Renewable Power	Granite Reliable	Wind	99 MW	Coos County, N.H.	Noble Environmental Power	
Brookfield Renewable Power	Malacha	Hydro	35 MW	Lassen County, Calif.	Mendata	
Capital Power	Island Cogen	Gas-fired	275 MW	Vancouver, B.C.	Harbinger Capital Partners	\$207 million
Carson Illinois Holdings	Carson	Gas-fired	50 MW	Carson, Calif.	Energy Investors Funds/JPMorgan	
Catalyst Renewables.	Fort Drum	Gas to biomass	55 MW	Fort Drum, N.Y.	Energy Investors Funds	
Competitive Power Ventures	Portfolio	Wind	Development	Various, Canada	Interwind, formerly SkyPower	
Constellation Energy	Two plants	Gas-fired	1.1 GW	Wharton & Odessa, Texas	Navasota Energy Partners	\$365 million
Constellation Energy	Boston Generating Co.	Gas fired	2.9 GW	Greater Boston area	U.S. Power Generating Co.	\$1.1 billion
DTE Energy Services	Stockton	Biomass	44 MW	Stockton, Calif.	NextEra Energy Resources	
DTE Energy Services	Mt. Poso	Coal to biomass	49.5 MW	Bakersfield, Calif.	Northern Star Generation, Red Hawk Energy	
Energy Capital Partners	Three plants	Gas-fired	1,244 GW	Connecticut, Massachusetts	BG Group	\$450 million
Energy Capital Partners	Milford	Gas-fired	548 MW	Milford, Conn.	BlackRock Real Asset Equity Trust	
Energy Investors Funds	Portfolio	Landfill gas-to-energy	66 MW	N.Y., various	Innovative Energy Systems	
GE EFS	King City	Cogen	120 MW	King City, Calif.	Harbinger Capital Partners	\$68 million
Golden Spread Electric Cooperative	Cielo	Wind	78 MW	Potter County, Texas	Cielo Wind Power	
Greenleaf Power	Scotia	Biomass	32.5 MW	Scotia, Calif.	Town of Scotia	
Greenleaf Power	Colmac	Biomass	47 MW	Mecca, Calif.	American Consumer Industries	
Hudson Clean Energy Partners	Portfolio	Hydro, biomass	50 MW	Various, N.Y.	Alliance Energy Group	
JPMorgan	Triton	Gas-fired	550 MW	Jackson, Mich.	Kinder Morgan	
Macquarie Infrastructure Partners	Pair of plants totaling	Landfill gas-to-energy	25 MW	Brea, Calif., Johnston, R.I.	Ridgewood Renewable Power	\$25 million
Najafi Companies	Snowflake	Biomass	24 MW	Arizona	Renegy Holdings	\$4.75 million
NextEra Energy Resources	Various	Solar PV	40 MW	Ontario	First Solar	
NRG Energy	Cottonwood	Gas-fired	1,279 GW	Deweyville, Texas	Harbinger Capital Partners	\$525 million
NRG Energy	California Valley Solar Ranch	Solar PV	250 MW	California	SunPower	
NRG Energy	Ivanpah, stake	Solar Thermal	392 MW	Ivanpah, Calif.	BrightSource Energy	\$300 million
NRG Energy	Agua Caliente	Solar PV	290 MW	Yuma County, Ariz.	First Solar	
Ormat	Mammoth, remaining 50% stake	Geothermal	29 MW	Mammoth Lakes, Calif.	Constellation Energy	\$72.5m
ReEnergy Holdings	Exeter	Tire-fueled	31 MW	Sterling, Conn.	CMS Energy	
Reunion Power	Grandpa's Knob	Wind	50 MW	Castleton, Vt.	Noble Environmental Power	
Wayzata Investment Partners	Gila River	Combined-cycle	583.5 MW	Phoenix, Ariz.	Entegra Power Group	
Xcel Energy	Two plants	Gas-fired	931 MW	Colorado	Calpine	\$739 million

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Project Finance Deals Wrap Sheet 2010

The following is a directory of power project finance deals that have closed between Jan. 1 and Dec. 23. The accuracy of this information, which is derived from many sources, is deemed reliable but cannot be guaranteed. To report updates or provide additional information on closed deals for 2010, please call Senior Reporter Brian Eckhouse at (212) 224-3624 or e-mail beckhouse@iineews.com

Sponsor	Project/ Portfolio	Type	MW/ bdf/mile	Location	Leads	Financing
El Paso	Ruby Express	Pipeline	Not Applicable	Opal Hub, Wyo. to Malin, Ore	Santander, BMO, Calyon, Scotia, SocGen, RBS, UniCredit	\$1.5B
Caitness, GE EFS	Shepherds Flat	Wind	845 MW	Oregon	BOTM, Citi, RBS, WestLB	\$1.43B
Terra-Gen Power	Alta (Phases 2-5)	Wind	570 MW	Tehachapi, Calif.	Citigroup, Barclays, Credit Suisse	\$1.2B
Mirant	Marsh Landing Generation	Gas-Fired	760 MW	Antioch, Calif.	RBC, RBS, WestLB	\$630M
Northland Power	North Battleford	Gas-Fired	260 MW	North Battleford, Saskatchewan	BMO, CIBC, Union Bank	\$580M
SteelRiver Transmission Company	Trans Bay Cable	Transmission	400 MW	San Francisco to Pittsburg, Calif.	Barclays	\$562M
Allegheny Energy	TrAILCo	Transmission	180-mile line	Pennsylvania to Virginia	Barclays, Credit Suisse, JPMorgan	\$450M
Terra-Gen Power	Alta (Phase 1)	Wind	150 MW	Tehachapi, Calif.	Crédit Agricole, Natixis	\$394M
Duke Energy	Green Frontier	Wind	291 MW	Wyoming, Pennsylvania, Colorado	Crédit Agricole, BBVA, Santander, BoTM, CoBank, Lloyds	\$375M
ArcLight, Hess Corp.	Bayonne Energy Center	Gas-Fired	512 MW	Bayonne, N.J.	WestLB, Crédit Agricole	\$370M
ArcLight, SGR Resources	Southern Pines Gas Storage	Storage	30 bcf	Greene County, Miss.	SunTrust, ING	\$365M
Brookfield Renewable Power	Comber	Wind	165.6 MW	Essex County, Ontario	BoTM, Scotia	\$354M
Pristine Power	York Energy Centre	Gas-Fired	393 MW	King, Ontario	ING, RBC, Union Bank	\$333M
Hannon Armstrong, Catalyst	Hudson Ranch I	Geothermal	49 MW	Salton Sea, Calif.	ING, WestLB, SocGen, Union Bank	\$300M
BP, Ridgeline Energy	Goshen II	Wind	124.5 MW	Idaho Falls, Idaho	MUFG, SMBC, Caja Madrid, Mizuho	\$300M
NextEra	Wild Prairie	Wind	249 MW	South Dakota and Iowa	BoTM	\$297M
Terra-Gen Power	Dixie Valley	Geothermal	67 MW	Churchill County, Nev.	Barclays, BNP	\$275M
NextEra	Central States	Wind	N/A	Texas, Wisconsin, South Dakota	UniCredit, BBVA, BayernLB	\$254M
GE EFS, Exergy	Various (Idaho Wind I)	Wind	N/A	Idaho	BoTM, ING, NordLB	\$242M
First Wind	Milford II	Wind	102 MW	Milford, Utah	HSH, RBS	\$240M
Duke Energy	Top of the World	Wind	200 MW	Casper, Wyo.	BoTM, BBVA, SocGen, Caja Madrid	\$231M
Competitive Power Ventures	Keenan II	Wind	152 MW	Woodward County, Okla.	BoTM, Helaba, ING, LBBW, Natixis, Rabobank, Union Bank	\$230M
Eurus Energy, NRG Energy	Various	Solar PV	45 MW	Southern California	Santander, Crédit Agricole, Natixis, SMBC, UniCredit, Mizuho	\$210M
Kruger Energy	Chatham-Kent	Wind	101.2 MW	Chatham-Kent, Ontario	Deutsche Bank	\$208M
Edison Mission Energy	Cedro Hills	Wind	150 MW	Webb County, Texas	BBVA, Dexia, Santander, Union Bank	\$160.6M
Rollcast Energy	Piedmont Green Power	Biomass	53.5 MW	Barnesville, Ga.	MUFG, Investec	\$133M
Cardinal Gas Storage	Perryville	Storage	7.5 bcf	Franklin County, La.	WestLB, ING	\$125M
First Wind	Stetson	Wind	82.5 MW	Danforth, Maine	BNP, HSH	\$116M
Solar Power Partners	Various	Solar PV	N/A	U.S.	US Bank, WestLB	\$115M
Glen Dhu	Shear Wind	Wind	62.1 MW	Nova Scotia	BBVA	\$112M
Invenergy	Vantage	Wind	103 MW	Vantage, Wash.	Dexia, UniCredit	\$115M
Northland Power	Mont-Louis	Wind	100 MW	Mont Louis, Quebec	Manulife, Canada Life	\$107.5M
Brookfield Renewable Power	Gosfield	Wind	50.6 MW	Essex County, Ontario	BoTM, Scotia	\$102M
Acciona Energy N.A.	EcoGrove	Wind	100.5 MW	Stephenson County, Ill.	Santander	\$100M
Starwood Energy Group	N/A	Solar PV	20 MW	Sault Ste. Marie, Ontario	NordLB	\$100M
Starwood Energy Group	Various	Solar PV	30 MW	Sault Ste. Marie, Ontario	NordLB, KfW IPEX-Bank	\$100M+
First Wind	Rollins	Wind	60 MW	Penobscot County, Maine	Key Bank, NordLB	\$98M
Macquarie	Amherstburg Solar Park	Solar PV	20 MW	Amherstburg, Ontario	Caixanova, Dexia, WestLB	\$90M
First Wind	New York Wind	Wind	N/A	New York	N/A	\$65M
Project Resources Corporation	Ridgewind	Wind	25.3 MW	Woodstock, Minn.	Union Bank	\$51M
SunPower, Xcel Energy	Alamosa	Solar PV	19 MW	Alamosa County, Colo.	John Hancock, MetLife	\$50M
BP Alternative Energy	Fowler II	Wind	199.5 MW	Benton County, Ind.	N/A	N/A
enXco	Arnprior	Solar PV	23.4 MW	Ottawa, Ontario	Dexia, Union Bank	N/A
Invenergy	Beech Ridge	Wind	100.5 MW	Greenbrier County, W.Va.	Natixis, Dexia	N/A

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Year At A Glance

FEBRUARY

Banks pitch a sub-300 basis point spread for a deal backing **enXco's** 201 MW Lakefield project, a market low not seen since 2008, underscoring the return of lender competition for deals (PFR, 2/8).



MAY

Calpine launches a financing package including a \$1.3 billion term loan—the largest in the power sector since the collapse of **Lehman Brothers**—to finance its acquisition of **Conectiv Energy** from **Pepco Holdings** (PFR, 5/17).

JANUARY

Bank of America, Goldman Sachs, Citigroup and **JPMorgan** vie to join **Credit Suisse** as underwriters for **First Wind's** revived bid for an initial public offering (PFR, 1/18).

MARCH

E.ON taps **Goldman Sachs** to market its Kentucky utilities, **Louisville Gas & Electric Co.** and **Kentucky Utilities** (PFR, 3/1).

APRIL

Exelon emerged as a likely buyer for the **John Deere Renewables** wind portfolio (PFR, 4/26).

JUNE

Morgan Stanley Capital Group structures the first spark spread-triggered credit facility at the request of **Dynegy** (PFR, 6/7).

2010 Jan Feb. Mar. Apr. May Jun.

JANUARY

The U.S. **Department of Energy** receives six applications for its Financial Institute Partnership Program, less than expected (PFR, 1/18).

APRIL

Constellation Energy paid \$332 per kW for a pair of combined-cycle gas plants in Texas totaling 1.1 GW from **Navasota Energy Partners** for a total \$365 million (PFR, 4/19).

MAY

Deutsche Bank begins to reverse a 10-year absence from the North American project finance market by leading the financing of a **Kruger Energy** wind project (PFR, 5/31).

MARCH

U.S. Power Generating Co. put its **Boston Generating** subsidiary on the market in an auction after a refinancing process derailed. **JPMorgan** ran the sale (PFR, 3/29).



MAY

Infigen Energy halted the sale of its 1.1 GW wind portfolio after bids came in lower than expected. **Marathon Capital** and **UBS** ran the auction (PFR, 5/3).

JUNE

Investors balk at the pricing on **NRG Energy's** \$4.4 billion refinancing package, which included a \$3.14 billion B loan priced at 350 basis points over LIBOR (PFR, 6/28).

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Year At A Glance

JULY

Guy Cirincione, head of project finance at **Dexia Cr dit Local** in New York, moves to **Siemens Financial Services** (PFR, 7/19).

JULY

Citigroup snares a \$650 million equity stake in 720 MW of **Terra-Gen Power's** Alta wind farm in Tehachapi, Calif. (PFR, 7/5).

AUGUST

First Solar scouts financing backing its \$3 billion, 550 MW Desert Sunlight farm in Desert Center, Calif. (PFR, 8/16).

OCTOBER

Duke Energy looks to sell its 7.6 GW merchant generation portfolio in the Midwest (PFR, 10/11).



SEPTEMBER

CIT Group, **Allied Irish Bank** and **Caja Madrid**, begin to re-emerge in project finance after a hiatus following the financial crisis (PFR, 9/27).

NOVEMBER

First Wind yanks its second attempt at an initial public offering after investor appetite falls short of expectations (PFR, 11/1).

Jul.

Aug.

Sept.

Oct.

Nov.

Dec.

AUGUST

Exelon and **Entergy** discuss merging their operations into a company boasting 60 GW of generation, from Texas to Vermont (PFR, 8/30).

JULY

Hudson Clean Energy Partners eyes a sale of its solar shop **Recurrent Energy**. **Morgan Stanley** advises Hudson on the deal (PFR, 7/12).



SEPTEMBER

Larry Kellerman, the former president of **Cogentrix Energy**, starts up IPP **Quantum Utility Generation**, and looks to spend \$1 billion on acquisitions (PFR, 9/27).



Larry Kellerman

NOVEMBER

Mitsubishi UFJ Financial Group indicates it planned to buy most or all of **Royal Bank of Scotland's** global project finance business for roughly GBP4 billion (\$6.4 billion) (PFR, 11/8).



OCTOBER

NextEra Energy Resources reaches out to lenders about financing its more than \$1 billion, 250 MW Genesis Solar Energy Project near Blythe, Calif. (PFR, 10/11).

DECEMBER

A **Hunt Consolidated** unit collaborates with **John Hancock Life Insurance**, **Marubeni Corp.**, **OPTrust Private Markets Group** and **TIAA-CREF** to launch the first real estate investment trusts to invest in transmission and pipeline assets (PFR, 12/6).

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A Year In Sketches

First Wind Fires Up Road Show For IPO

Oct. 18, 2010



Edison Eyes Partner For Wind

Oct. 4, 2010



Unregulated Power Cos Face \$8-10B Maturity Crunch

Sept. 20, 2010



Shell Scouts Partners, Sale For Wind Unit

Sept. 6, 2010



Ameren Looks To Sell Generation Assets

Aug. 30, 2010



Spanish Developers Scout Mexico Wind Funds

Aug. 16, 2010



BrightSource Scouts IPO, Financing

July 26, 2010



Wind Developers Scope Leveraged Leases

June 28, 2010



Lake Erie Project Draws Bidders

June 14, 2010



Battle Royale looms For EDF Unit Lead

Feb. 8, 2010



Annual Preview & Review

Quiz — Test your knowledge of deals, players and events in the power industry in 2010.

1) Which sweetener was added to **Exelon's** bid to buy **John Deere Renewables**?

- A. Option-adjusted spread
- B. year's supply of Godiva chocolate
- C. earn-out payment
- D. all expenses paid trip to St. Maarten



2) Which bankers left the lender ranks for a solar developer?

- A. Mark Dennes
- B. Vinod Mukani
- C. Bruno Mejean
- D. Tony Muoser

3) What is **Constellation Energy** acquiring through its purchase of **Boston Generating Co.**?

- A. Mystic 7
- B. Fenway Park
- C. Cheers
- D. Faneuil Hall

4) **Panda Energy** likened establishing a solar joint venture with **Consolidated Edison Development** to an **NFL** team drafting which 2010 college recruit?



- A. Eric Berry, Tennessee
- B. Ndamukong Suh, Nebraska
- C. Sam Bradford, Oklahoma
- D. Tyson Alualu, California

5) Which company doesn't exist?

- A. Energy Acquisitions & Finance
- B. Energy Capital Partners
- C. Energy Capital Advisors
- D. Energy Answers International



6) Which company did not make a power or transmission investment this last year?

- A. Google
- B. Caterpillar Financial Services
- C. Chubu Electric Power Co.
- D. Calvin Klein

7) Which two institutions are powered by wind?

- A. Peter Luger
- B. Brooklyn Industries
- C. Coney Island
- D. Brooklyn Brewery

8) Which natural gas-fired plant was sold by a firm other than **Harbinger Capital Partners**?

- A. King City
- B. Island Cogen
- C. Triton
- D. Cottonwood

9) How does **Makani Power** harness wind at high altitudes?

- A. Cables via airplanes
- B. Turbines
- C. Metaphysical transference
- D. Flying saucers

10) Where have developers **BrightSource** and **Tessera** have found more Tortoises than expected?

- A. Kings County, N.Y.
- B. San Bernadino County, Calif.
- C. Cheboygan County, Mich.
- D. Vermilion County, La.



11) Which sponsor landed a sale-leaseback this year?

- A. Iberdola Renewables
- B. SkyPower
- C. Western Wind Energy
- D. Project Resources Corporation

12) Which power project received the largest financing this year?

- A. Pensa II
- B. Ruby Express Pipeline
- C. Alamosa
- D. North Battleford

Answers: 1) c, 2) c, 3) a, 4) b, 5) a, 6) d, 7) b, 8) c, 9) a, 10) b, 11) d, 12) b.

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Caithness, GE Close

(continued from page 2)

from the DOE loan guarantee. Pricing starts at 300 basis points over LIBOR for the unguaranteed portions and 175 bps for the part covered by DOE. The tenor of the letters of credit is construction plus five years; the tenor of the term loan is construction plus 12 years.

Project banks had the option of mixing pieces of the term loan and letters of credit. "It's like a dating game—hopefully you get your match and it all comes together," a deal watcher says. "And it did." BayernLB took a \$15 million piece of the term loan and \$25 million in the guaranteed portion of the letters of credit. Helaba selected a piece of the unguaranteed letter of credit. The composition of the other banks' portions couldn't be learned. **Jeff Delgado**, Caithness director in New York, declined to comment. Bank officials either declined to comment or didn't return messages.

"The reason this deal got done was the project's fundamentals," says **Adam Umanoff**, a Los Angeles-based partner at **Chadbourne & Parke**, which represented Caithness and GE EFS in the deal. "You have Caithness, which is very experienced, and GE putting in substantial equity. You have an offtake with SoCalEd. And a wind regime about as well known as any [in the U.S.], and then you add in the FIPP structure." Caithness monitored the wind regime along the Columbia River Gorge in Oregon over eight years. **Southern California Edison** has a 20-year offtake agreement for the 845 MW farm in eastern Oregon.

Transmission Financings Set To Arrive

Transmission projects totaling at least \$3.5 billion are expected to be financed in the next two years, after several years of slogging through municipal, state and federal regulatory bodies.

Developers discussing financings include **American Electric Power** (PFR, 10/29), **Brookfield Asset Management** (PFR, 6/28/10), **Hudson Transmission Partners** (PFR, 10/25), **Sharyland Utilities** and **LS Power**. **Western Energy Transmission Texas**, **LS Power** and **Hunt Power** subsidiary **Sharyland** are among the sponsors or affiliates of sponsors plotting greenfield lines in West Texas as part of the state's Competitive Renewable Energy Zones. The **Public Utility Commission** of Texas is expected to rule on at least seven applications for CREZ projects filed by these three sponsors by mid-2011, a spokesman in Austin says.

Transmission lines, typically regulated assets with highly predictable revenue streams and cost recovery through rate

bases, are attractive to underwriters and institutional investors alike. "A transmission line is very much like a natural gas pipeline: there's little operating risk," a project finance head in New York says. Banks eying transmission deals include **Banco Santander**, **Bank of Tokyo Mitsubishi-UFJ**, **BNP Paribas**, **Deutsche Bank**, **Royal Bank of Scotland** and **Société Générale**. Bank officials either declined to comment or didn't return messages.

Many of these transmission financings will likely land in the bond market, which has more participants and available capital than the pool of project finance banks, says **Carl Weatherley-White**, **Barclays Capital** managing director of investment banking in New York. "For a large deal, we definitely go to the bond markets," he adds. The larger pool leads to quicker execution than in syndicated loan deals and bonds offer longer tenors.

Deals that are initially financed by commercial banks also are typically termed out in capital markets, says **Chip Lewis**, **Barclays** director in New York. **SteelRiver Transmission Company** issued \$562 million in 4.71% senior secured notes to refinance a loan from **BayernLB** backing the 400 MW Trans Bay Cable Project in Northern California (PFR, 12/17).

The cost to ink syndicated debt is comparable to the cost of bonds, including underwriting or lead arranger fees. Multiple bankers pointed to the \$550 million private placement backing **Neptune Regional Electric Transmission's** 660 MW undersea cable line from New Jersey to Long Island, N.Y., as a model for 2011 transmission deals (PFR, 7/15/05). The 22-year notes were priced at roughly 6%.

Boilerplate pricing on a syndicated loan, backing a transmission line sponsored by a reputable developer with a sound offtaker, would start at 250 basis points over LIBOR, stepping up 25 bps every three years, says a syndicator in New York, noting competition among banks is pushing pricing down. Roughly three to five banks would lead the deals, he says, which would likely have tenors up to 15 years.

At least 15 banks participated in a bond issue and revolver backing **Allegheny Energy** affiliate **Trans-Allegheny Interstate Line Co.'s** 240-mile line (PFR, 2/5). Pricing was 150-300 basis points over LIBOR for the \$350 million three-year revolver and 4% for the \$450 million in unsecured notes. There are other avenues to finance transmission; **Sharyland** recently launched the first real estate investment trusts to invest in its lines (PFR, 12/3/10).

Ed Stern, **Hudson** ceo in Fairfield, Conn., **Jeff Rosenthal**, **Brookfield** coo in Toronto, and **Sharon Segner**, **LS Power** director in Washington, D.C., didn't return calls seeking comment. **AEP** and **Hunt** spokeswomen didn't make officials available for comment.

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M&A SET TO

(continued from page 1)

Shale gas discoveries are expected to keep gas prices low, making gas-fired generation attractive relative to renewables. "Shale's impact appears very much here to stay," says **Tim Kingston**, global co-head of power investment banking at **Goldman Sachs**.



Tim Kingston

The U.S. **Energy Information Administration** estimates that the U.S. has about 1,744 trillion cubic feet of technically recoverable natural gas reserves, which could supply the country's gas needs for about 100 years.

Pricing will still be a fine line for buyers and sellers to negotiate, say bankers. As competition in auctions has grown, buyers have had to be more aggressive with their bids. But sellers shouldn't get too confident with the asking price, bankers say. **U.S. Power Generating Co.** put its auction of **Astoria Generating Co.** on hold when bids came in lower than desired (PFR, 11/3).

Strategy shifts, such as companies exiting a region or business unit, as well as debt restructurings are likely to drive assets to the block, bankers say. Sellers are not expected to be distressed—as most independent power producers are hedged into 2011—but situations similar to **Entegra Power Group** selling a stake in its 2.3 GW Gila River facility could arise, says an M&A banker. Entegra used the proceeds from the sale to **Wayzata Investment Partners** to pay down debt (PFR, 7/9).

—Holly Fletcher

SOLAR FORECAST

(continued from page 1)

per watt of solar has dropped to \$1.75 from about \$1.90 in the U.S. over the past year, Mejean notes. He expects prices to drop precipitously in the second half of 2011 due to mounting supply and economies of scale. PV generally costs \$4 million per MW to develop.

"There's a huge number of projects working through permitting and interconnections in California and Ontario that will... achieve financial close in 2011," adds



Brad Nordholm

Brad Nordholm, **Starwood Energy** CEO in Greenwich, Conn.

Some of the larger traditional power developers, including **NextEra Energy Resources** and **Tenaska**, have entered the solar market and are eyeing financial close in 2011. Juno Beach, Fla.-based **NextEra Energy Resources** is talking to banks about financing the more than \$1 billion, 250 MW Genesis Solar Energy Project west of Blythe, Calif. (PFR, 10/8). Genesis is a concentrating solar thermal project. Omaha, Neb.-based **Tenaska** is targeting \$700-800 million in debt for its maiden photovoltaic projects, both in Southern California (PFR, 11/12). Accordingly, more banks are playing in solar—not just European banks, including **Dexia Crédit Local** and **NordLB**, which have experience financing projects overseas, lenders say. Most projects under development in North America lie within



Brian Goldstein

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the emerging middle-market—plants generating 5-100 MW. **Northland Power** is among a large group of developers plotting multiple 10 MW PV plants in Ontario (PFR, 8/6), lured by the province's feed-in tariff program. The solar pipeline of Ontario-based Northland comprises 13 projects. Bankers anticipate the \$210 million syndicated financing backing three Southern Californian PV plants being developed by **Eurus Energy** and **NRG Energy** to be a model for financings in the U.S. (PFR, 9/27).

Congress ensured solar's momentum by extending the U.S. **Department of Treasury** cash grant by one year. Other government initiatives, including renewable portfolio standards requiring utilities to ink solar offtake agreements, are also propelling the market forward.

Industry leaders caution, however, that mounting solar financings in North America doesn't necessarily denote solar's preeminence in power. It simply means that solar has arrived. "There won't be one eureka moment," Nordholm says.

—**Brian Eckhouse**

...AS THIN WIND

(continued from page 1)

double premium," says an M&A banker in New York.

One option for companies hunting capital is to take the path of **Edison Mission Energy** and **Horizon Wind Energy** and look for investors to take an ownership slice of an existing fleet (PFR, 10/1 & 11/19). Investors, from infrastructure funds to pension funds and endowments, see contracted fleets as "bond-like" for their secure cashflows, note industry officials.



Raymond Wood

Stiff competition for PPAs that will cover the cost of construction as natural gas prices and slack power demand keep power prices subdued. Utilities are handing out fewer PPAs as power demand has fallen and developers need to line up financing outside the traditional project finance market, which requires an offtake agreement.

"While the overall market environment is challenging for wind developers due to low gas prices and utility resistance to signing long term power purchase agreements, many deals are getting done," says **Raymond Wood**, co-head of renewables and power at **Credit Suisse**. New investor entrants, ranging from Asian shops to pension funds such as **CalPERS** and endowments, are increasingly looking at the space (PFR, 12/3).

In addition to bringing in co-investors, there could be more one-off transactions where a buyer picks up a single contracted, shovel-ready project such as **Brookfield Renewable Power's** acquisition of Noble's 99 MW Granite Reliable project in New Hampshire (PFR, 12/7). Brookfield and **Enbridge**, along with other players with large balance sheets, are in the market for

late-stage, contracted projects, industry officials say, adding that the search is typically opportunistic.

—**Holly Fletcher**

Alternating Current

A Christmas Aquatic



Electrophorus electricus

Something is aglow at the **Enoshima Aquarium** in Kamakura, Japan, and it's certainly not the nativity star. The aquarium's Christmas tree is kept alit by the squirms and squiggles of one of its inhabitants: an *Electrophorus electricus* also

known as an electric eel.

Two aluminum plates inserted in a fish tank transmit the power generated by the large swampy brown eel that emits an electrical current every time it moves its muscles. While the 6 ft., 5 in. tree doesn't get enough power to stay consistently and wholly lit, the eel moves enough to light a portion of the tree at time. Occasionally, it makes enough waves to briefly set the whole thing alight. Most of the time, visitors see the equivalent of a home Christmas tree that has three-fourths of its strands missing a bulb.

The eel is in its fifth year as a Christmas exhibit and an aquarium official has big plans: gather all the *electrophorus electricus* from around the world and light a big tree that is visible from space. Now that's a Christmas miracle.

Conference Calendar

- **Infocast** will host **Projects & Money 2011** January 11-13 at Harrah's New Orleans in New Orleans, La. To register, visit <http://infocastinc.com/index.php/conference/416/registration> or call 818.888.4444.
- **Euromoney Seminars** will host the 2nd Annual Canadian Power Finance Conference January 19-20 at The Hyatt Regency in Toronto. To register, visit <https://www.euromoneyseminars.com/EventRegister.aspx?CategoryID=0&EventID=3655>.
- **Infocast** will host the **Wind & Solar Integration Summit** January 24-26 at the Millennium Resort Scottsdale McCormick Ranch in Scottsdale, AZ. To register, visit <http://www.infocastinc.com/index.php/conference/427/registration> or call 818.888.4444.

Quote Of The Week

"The longer the economy and the markets remain at this level, people will be more willing to transact."—**Joseph Sauvage**, head of power investment banking at **Citigroup** on whether M&A deal flow next year will be on par with activity in 2010 (see story, page 1).