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Power Finance & Risk

Exclusive Insight on Power M&A and Project Financing By the publisher of GlobalCapital

Allianz Goes Solo with PJM Wind Tax Equity Deal

Fotios Tsarouhis

Allianz Capital Partners is investing tax equity in an **EDF Renewable Energy** merchant wind asset under development in Illinois.

Allianz has agreed to be the sole tax equity investor in the 184 MW Kelly Creek wind project in Ford and Kankakee counties, according to a filing with the U.S. **Federal Energy Regulatory Commission**.

The deal marks a departure from Allianz's first two tax equity deals from earlier this year, both of which were made in partnership with seasoned tax equity investors.

The asset manager partnered PAGE 2 »

The German insurer has previously invested alongside experienced partners.

Ormat Seeks Geothermal and Storage Acquisitions

Olivia Feld

Ormat Technologies is looking to acquire geothermal and storage projects in the U.S. and further afield.

The Reno, Nev.-based geothermal project developer and equipment manufacturer is exploring acquisition opportunities in geothermal and storage facilities which can add value to its operation, a spokesperson for Ormat in Israel, where the company also has offices, tells *PFR*.

In addition to the purchase price, the company's investment criteria for acquisitions include whether the project or projects can be further enhanced, adds the spokesperson, declining to comment on the expected size of such an investment.

The company is using its own internal mergers and acquisitions team but has not ruled out retaining an external adviser, "depending on the size of the acquisition", she adds.

Operational projects targeted for acquisition PAGE 5 »

CONFERENCE COVERAGE

Distributed Solar Summit: Industry Weighs Political Risks for Tax Equity

Richard Metcalf

Assuming President-elect **Trump** does not prematurely revoke the investment tax credit, residential, commercial and industrial-scale solar installations in the U.S. could reach 7.2 GW a year—resulting in 50 GW of installed capacity—by 2022, according to a **Navigant** analyst.

Residential solar installations will grow from 2,700 MW to 4,780 MW a year in the next six years, and C&I installations from 1,100 MW to 2,544 MW, if the ITC remains in place according to the existing schedule, **Dexter Gauntlett** told attendees at the **Infocast Distributed Solar Summit** in Los Angeles on Nov. 16.

Most panelists and attendees said they believed that it was unlikely that a Trump administration would bring forward ITC's planned phase out and the equivalent wind PAGE 8 »

POWER UP: CHECK OUT A SELECTION OF THE WEEK'S POWER AND UTILITY NEWS ON TWITTER PAGE 6

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PROJECT FINANCE

Allianz to Invest Tax Equity in PJM Wind Asset

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with **Bank of America Merrill Lynch** on its maiden tax equity investment in two **EDF Renewable Energy** projects, the 250 MW Roosevelt and the 50 MW Milo wind projects in Roosevelt County, N.M., earlier this year (PFR, 2/8).

Allianz's second tax equity deal, an investment in **E.On Climate & Renewables North America**'s 200 MW Colbeck's Corner wind project in Carson and Gray counties, Texas, was made alongside **State Street** (PFR, 5/25).

EDF and Allianz are planning to close the transaction before Dec. 15, so as to take full advantage of the tax benefits available under the production tax credit, according to the filing.

The size of the investment could not immediately be learned.

Representatives of Allianz in London and New York and EDF Renewable Energy in San Diego declined to comment. ■

Algonquin Seals Tax Equity for Michigan Wind Project

Algonquin Power & Utilities Corp. has lined up tax equity investors for a wind project it will soon wholly own.

Bank of America Merrill Lynch and **Citizens Bank** will invest tax equity in the 149 MW Deerfield project in Huron County, Mich., according to a filing with the U.S. **Federal Energy Regulatory Commission**. The size and proportion of the investments could not immediately be learned.

Oakville, Ontario-based Algonquin is acquiring **Renewable Energy Systems Americas**' remaining stake in the project, exercising a contractual right under the purchase agreement through which the utility acquired its existing 50% stake.

In a similar transaction, Algonquin acquired the remaining 50% interest in the 200 MW Odell wind project in Cottonwood, Jackson, Martin and Watonwan counties, Minn., from **Enel Green Power North America** earlier this year (PFR, 7/26).

The Deerfield project, which is in its final stage of construction, is expected online next month. The project will sell its output to **Wolverine Power Supply Cooperative** under a 20-year power purchase agreement (PFR, 11/5/15).

Representatives of Algonquin in Oakville, RES Americas in Broomfield, Colo., and Citizens Bank in Providence, R.I., were not immediately available for comment. A spokesperson for BAML in New York declined to comment. ■

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Do you have questions, comments or criticisms about a story that appeared in ***PFR***? Should we be covering more or less of a given area? The staff of ***PFR*** is committed as ever to evolving with the markets and we welcome your feedback.

Feel free to contact **Richard Metcalf**, editor, at (212) 224-3259 or richard.metcalf@powerfinancerisk.com

GENERATION AUCTION & SALE CALENDAR ●

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

Generation Sale DATABASE

Seller	Assets	Location	Advisor	Status/Comment
Abengoa	Norte III (924 MW Gas)	Ciudad Juárez, Mexico	Carl Marks	Abengoa is talks with several interested parties over a potential sale of the projects (PFR, 9/26).
ArcLight Capital Partners	Mendota Hills (50 MW Wind)	Compton and Lee counties, Ill.		GE Energy Financial Services is transferring its passive stakes in the projects to an ArcLight fund (PFR, 11/14).
	Kumeyaay (50 MW Wind)	San Diego County, Calif.		
Brookfield Renewable Partners	Price (189 MW Wind), Comber (166 MW Wind), Gosfield (51 MW Wind)	Sault Ste. Marie, Lakeshore, and Kingsville, Ontario	Scotiabank, TD Securities (seller)	Brookfield Renewable is selling the three facilities, plus an expansion project, in a portfolio (PFR, 7/18).
Cogentrix Energy Power Management	Red Oak (823 MW Gas)	Sayreville, N.J.		The Carlyle Group's Cogentrix is selling the gas-fired project (PFR, 10/3).
Cogentrix, Quantum Utility Generation	James River Genco (115 MW Coal)	Hopewell, Va.		Cogentrix and Quantum are selling their 50-50 ownership stakes to Michigan-based Novi Energy, which will repower the project with a gas-fired turbine (PFR, 10/3).
Ecoplexus	Turkey Creek (13.5 MW Solar)	Northampton County, N.C.		PSEG Solar Source has acquired the project (PFR, 11/14).
● EDF Renewable Energy	Merricourt (150 MW Wind)	McIntosh and Dickey counties, N.D.		Otter Tail Power Co. will acquire the project (see story, page 6).
Enel Green Power North America	Cimarron Bend (400 MW Wind)	Clark County, Kan.		GE Energy Financial Services is taking a 50% stake in each project (PFR, 11/4).
	Lindahl (150 MW Wind)	Williams County, N.D.		
Exelon Corp.	Mystic Generating Station (1,998 MW Gas and Dual-fuel)	Charlestown, Mass.	JP Morgan	Exelon has launched a sales process for the project (PFR, 10/24).
FirstEnergy	Portfolio (11.7 GW Coal, Gas, Nuclear)	U.S. (Pennsylvania, Ohio, West Virgina)		FirstEnergy is looking to sell its entire competitive fleet (PFR, 11/14).
FLS Energy	Portfolio (950 MW Solar)	U.S.		Cypress Creek is acquiring FLS Energy (PFR, 11/14).
Foundation Windpower	Greenfield (25 MW Wind)	Teton County, Mont.		Greenbacker Renewable Energy Co. has acquired the project (PFR, 11/14).
Geronimo Energy	Blazing Star 1 (200 MW Wind)	Lincoln County, Minn.		Xcel Energy is acquiring the projects (PFR, 10/31).
	Blazing Star 2 (200 MW Wind)			
Heritage Wind Farm Development (Allan Kettles)	Heritage (up-to 350 MW Wind)	Pinchers Creek, Alberta		NextEra Energy Canada Development & Acquisitions has agreed to purchase the project (PFR, 11/14).
Invenergy	Bethel (276 MW Wind)	Castro County, Texas		Southern Power is acquiring the project (PFR, 11/14).
Mercuria	Danskammer (500 MW Dual-fuel)	Hudson Valley, N.Y.	Guggenheim Partners	The first round of a two-stage auction is underway (PFR, 10/3).
NextEra Energy Resources	Foxtail (150 MW Wind)	Dickey County, N.D.		Xcel Energy is acquiring the project (PFR, 10/31).
Obsidian Renewables	Black Cap II (10.5 MW Solar)	Lake Oswego		PSEG Solar Source has acquired the project and renamed it PSEG Lake County Solar Energy Center (PFR, 11/4).
Panda Power Funds	Liberty (Gas 829 MW), Stonewall (778 MW), Patriot (829 MW)	Bradford County, Pa., Loudoun County, Va., Lycoming County, Pa.	Goldman Sachs	First round bids for the 2.5 GW portfolio are due this month (PFR, 10/31).
● Renewable Energy Systems Americas	Deerfield (149 MW Wind, 50%)	Huron County, Mich.		Algonquin Power & Utilities Corp. is buying RES Americas' 50% stake, taking full ownership of the project (see story, page 2).
sPower	Portfolio (6.7 GW Solar)	U.S.	Barclays (lead), Marathon Capital, CohnReznick Capital Markets Securities and Citi (co-leads)	The independent power producer is exploring a sale of its entire portfolio and development platform (PFR, 10/3).
TransCanada	Portfolio (778 MW Gas, Wind)	Maine, Pennsylvania, Rhode Island, New York	JP Morgan (seller)	LS Power Equity Advisors is acquiring the portfolio (PFR, 11/4).
	Portfolio (560 MW Hydro)	Massachusetts, Vermont	JP Morgan (seller)	ArcLight Capital Partners is acquiring the portfolio (PFR, 11/4).
Traxys Power Group	L'Anse Warden Electric Co. (20 MW Biomass)	L'Anse, Mich.		The project has been acquired by a subsidiary of the Libra Group (PFR, 11/14).
Veresen	Portfolio (625 MW Gas-fired, Hydro, Wind)	Canada	TD Securities	A sale of the assets has formally launched (PFR, 10/31).
VivoPower USA	NC-47 (33.8 MW Solar)	Maxton, N.C.		New Energy Solar Fund is acquiring its second U.S. solar asset stake (PFR, 11/4).

● **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 Fotios Tsarouhis at (212) 224 3294 or e-mail fotios.tsarouhis@powerfinancerisk.com

● PROJECT FINANCE

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

Live Deals: Americas

Sponsor	Project	Location	Lead(s)	Loan	Loan Amount	Tenor	Notes
8minutenergy Renewables	Redwood 4 (28 MW Solar)	Kern County, Calif.	TBA	Debt, Tax Equity	TBA	TBA	8minutenergy Renewables is planning to finance the projects in the coming months (PFR, 10/24).
	SpringBok 3 (100 MW+ Solar)			Debt, Tax Equity	TBA	TBA	
Advanced Power	Cricket Valley (1 GW Gas)	Dover, N.Y.	BlackRock	Equity	TBA		BlackRock is buying a minority stake in the project (PFR, 8/22).
			GE EFS, BNP Paribas, Crédit Agricole, ICBC, BAML	Debt	TBA	TBA	Arrangers of the debt financing are meeting with other financial institutions about backing the deal (PFR, 6/20).
● Algonquin Power & Utilities Corp.	Deerfield (149 MW Wind)	Huron County, Mich.	BAML, Citizens Bank	Tax Equity	TBA		The two banks are investing tax equity in the project (see story, page 2).
Ares-EIF	Birdsboro (450 MW Gas)	Birdsboro, Pa.	CIT, GE EFS, Investec	Debt	$300M	C+3	A group of three banks have been mandated as coordinating lead arrangers on a debt financing (PFR, 10/24).
Andes Mining & Energy, Cheniere Energy, EDF	Penco Lirquén (423 ft³/day LNG)	Concepción Bay, Chile	BNP Paribas (sole adviser), Crédit Agricole, DNB, MUFG, Société Générale	Mini-perm	$850M	8-yr	The arrangers are expected to syndicate the loan at the end of September or beginning of October (PFR, 10/3).
	El Campesino Phase I (640 MW Gas)	Bulnes, Chile					
● Capital Dynamics	Portfolio (124.6 MW Solar)	North Carolina	KeyBanc Capital Markets (left lead)	Debt	TBA	TBA	The asset manager has closed financing for the portfolio (see story, page 5).
			US Bank	Tax Equity	$91.6M		
● EDF Renewable Energy	Kelly Creek (184 MW Wind)	Ford and Kankakee counties, Ill.	Allianz Capital Partners	Tax Equity	TBA		Allianz is making its first solo tax equity investment (see story, page 1).
Enercon Canada	Niagara Region Wind Farm (230 MW)	Ontario, Canada	KfW, MUFG, CaixaBank, Landesbank Baden-Wurttemberg, ABN Amro, DZ Bank	Debt	$592M	18-yr	Enercon Canada has closed a C$825.5 million ($621.4 million) project financing for the project (PFR, 11/4).
Harbert Management Corp., UBS Asset Management, Northwestern Mutual Life Insurance Co.	Portfolio (1.5 GW Gas)	U.S. (California, New Mexico, Texas) and Trinidad and Tobago	Macquarie Capital	Term Loan B	$245M	7-yr	Macquarie Capital has launched a term loan B to finance the acquisition and refinance the debt associated with the projects (PFR, 11/4).
Invenergy	Lackawanna (1.5 GW Gas)	Jessup, Pa.	BNP Paribas, GE EFS, MUFG	Commercial bank debt	$800M - $900M	TBA	Invenergy has selected arrangers for a debt package for the project, which could include an additional tranche (PFR, 9/19).
			Prudential	Institutional debt	$200M	TBA	
			Lazard	Equity	TBA	TBA	
NTE Energy	Portfolio (2 GW Gas)	Connecticut, North Carolina, Ohio	TBA	Debt	$2B		NTE is planning to raise $2 billion to finance the Killingly, Reidsville and Pickaway energy centers (PFR, 4/25).
Panda Power Funds	Mattawoman (850 MW Gas)	Brandywine, Md.	TBA	TBA	TBA		Panda is considering launching financing for the project (PFR, 10/31).
Quantum Utility Generation	Moundsville (549 MW Gas)	Marshall County, W. Va.	TBA	Debt	$500M	TBA	Quantum has approached prospective arrangers to raise debt and has mandated BNP Paribas to sell a stake in the project (PFR, 6/6).
● sPower	Portfolio (162 MW Solar)	Cantil, Calif.	KeyBanc Capital Markets (lead), CIT Bank, CoBank, KeyBank, NordLB, Rabobank, Siemens Financial Services	Mini-perm	$290M	TBA	sPower has closed financing for the three-project portfolio (see story, page 5).
			PNC, US Bank	Tax Equity	$150M		
Starwood Energy Group Global	Marcus Hook Energy Center (790 MW Gas)	Marcus Hook, Pa.	MUFG, Crédit Agricole, ING Bank, KB Kookmin Bank	Debt	$657.4M	7-yr	Starwood has closed both acquisition financing and refinancing for the projects (PFR, 11/14).
	“Marcus Hook 50 (50 MW Gas)						
Transmisora Eléctrica del Norte	TEN (379 mile Transmission)	Chile	KfW-IPEX Bank, MUFG, Mizuho, Sumitomo-Mitsui Trust Group	Term Loan (Dollar)	$739M	18-yr	The expected closing date of the financing has been pushed back due to negotiations over interest rate swap provisions (PFR, 10/17).
			Santander, Banco de Chile, Banco Estado de Chile, Banco BCI	Term Loan (Chilean Peso)			
VivoPower USA	NC-47 (33.8 MW DC Solar)	Maxton, N.C.	KeyBanc Capital Markets	Debt	TBA	TBA	VivoPower is financing the project with a construction loan and tax equity (PFR, 11/4).
			US Bank	Tax Equity	TBA		

● **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 Managing Editor Olivia Feld at (212) 224-3260 or e-mail olivia.feld@powerfinancerisk.com

PROJECT FINANCE

Capital Dynamics Wraps Solar Portfolio Financing

Swiss asset manager Capital Dynamics has closed a debt and tax equity financing for a multi-project solar portfolio in North Carolina.

KeyBanc Capital Markets was left lead on the back-leveraged debt financing for the 124.6 MW portfolio and **U.S. Bank** invested $91.6 million of tax equity.

CohnReznick Capital Markets Securities advised Capital Dynamics on the deal.

The number of projects in the portfolio and their names and offtake arrangements could not immediately be established. The tax equity deal closed on Sept. 22.

U.S. Bank's recent tax equity deals have included investments in projects owned by **sPower**, **Enel Green Power North America** and **Terra Nova Renewable Partners** (PFR, 9/27, PFR, 6/9, PFR, 7/18).

The Minneapolis-based bank partnered with **PNC** to invest $150 million of tax equity in a portfolio of **sPower** solar projects earlier this year. The financing package for that portfolio also included debt arranged by KeyBanc (see story, right).

Stoel Rives was Capital Dynamics' legal adviser on the financing for the North Carolina portfolio. **Winston & Strawn** advised the lenders and **Nixon Peabody** advised U.S. Bank.

Officials at Capital Dynamics in New York were not immediately available for comment. Officials at KeyBanc in New York did not immediately respond to a request for comment. ■

sPower Seals Financing for California Solar Trio

sPower has closed a $434 million financing comprising construction debt and tax equity for a three-project solar portfolio in California.

The financing package is for three projects—Beacon Solar 1 and Beacon Solar 3, each 56 MW, and 50 MW Beacon Solar 4—under construction in Cantil, Calif. All three projects have 25-year power purchase agreements with the **Los Angeles Department of Water and Power**.

The tax equity component, committed by **PNC** and **U.S. Bank,** made up approximately $150 million of the long-term financing, according to a person familiar with the transaction. The sponsor filed for regulatory approval of the tax equity investment in Beacon Solar 4 earlier this year (PFR, 7/9).

KeyBanc Capital Markets arranged the roughly $290 million mini-perm term loan for the projects. **CIT Bank**, **CoBank**, **KeyBank**, **NordLB**, **Rabobank** and **Siemens Financial Services** participated in the loan.

CohnReznick Capital Markets Securities advised sPower on both deals.

Beacon 4 is expected online later this month, with Beacon 3 expected to be operational in December. Beacon 1 is due to follow in the first quarter of 2017.

A spokesperson for sPower in Salt Lake City declined to comment on the financing. ■

MERGERS & ACQUISITIONS

Ormat Seeks Geothermal and Storage Acquisitions

« FROM PAGE 1

will need to have a power purchase agreement in place, although the company is also looking at development assets that have a high probability of securing a PPA in the future.

In July, the company acquired a majority stake in the 10 MW Bouillante geothermal project in Guadeloupe from **Geothermie Bouillante SA**, a wholly owned subsidiary of the **Bureau de Recherches Géologiques et Minières**, a French government agency.

Ormat and **Sageos**, a fully owned subsidiary of French state-owned **Caisse des Dépôts et Consignations**, together acquired an 80% stake in Geothermie Bouillante SA, which is the project's holding company.

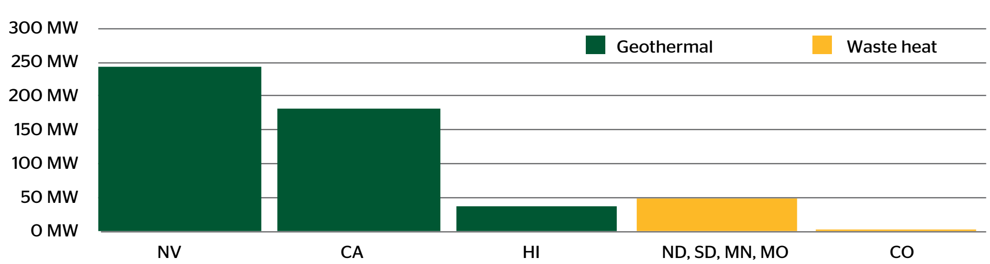
Ormat's stake in the deal was 75% and CDC's was 25%. Both committed to gradually increasing their combined interest to 85%, with Sageos holding the remaining interest.

Ormat paid approximately €16.7 million, which at the time of the announcement was approximately $18.6 million, for its approximately 60% interest in the holding company. Ormat announced that it would increase its interest to 63.75% and invest a further €7.5 million in the next two years toward enhancing the project.

Since the deal was announced, the facility's capacity has increased by 3 MW and Ormat says it plans to add an additional 5 MW to the project next year.

Excluding any M&A activity, Ormat says it will grow its portfolio by between 150 MW and 180 MW by 2017. In addition to the Bouillante expansion, the company is developing the 24 MW Tungsten and the 15 MW to 20 MW Dixie Meadows geothermal projects in Nevada and the 35 MW Platanares geothermal project in Honduras, in addition to a number of others in Indonesia. ■

Ormat's U.S. Generation Portfolio



Note: As of February 2016. Source: Ormat annual report.

MERGERS & ACQUISITIONS

Midwestern Utility to Purchase N.D. Wind Project

Minnesota-based utility **Otter Tail Power Co.** has agreed to purchase the 150 MW Merricourt wind project in southeastern North Dakota from **EDF Renewable Energy**.

Otter Tail Power plans to finance the project's roughly $250 million construction costs with a mixture of debt and equity, says a spokesperson for the company in Fergus Falls, Minn.

The project, which will be situated on 13,700 acres near Merricourt, in McIntosh and Dickey counties, is slated to come online in 2019. The ownership of the asset is expected to pass from EDF to the utility once construction is ready to commence, which is scheduled for the first quarter of 2018, according to an EDF spokesperson in San Diego.

EDF will run the operations and management of the project once it is complete.

The addition of the project to Otter Tail's fleet will increase the renewable portion of the company's generation from 19% to 28%.

Otter Tail intends to obtain 30% of its generation from renewables by 2021 as it prepares to retire its 140 MW coal-fired Hoot Lake Plant in Fergus Falls. Alongside its renewables push, the utility plans to add 250 MW of gas-fired generation over the next five years.

Dorsey served as Otter Tail's legal adviser on the acquisition. The company did not use external financial advisers.

The project will require regulatory pre-approvals and permitting from the **Minnesota Public Utilities Commission**, the **North Dakota Public Service Commission** and the **South Dakota Public Utilities Commission**. ■

STRATEGIES

Southern Power Returns to Green Bond Mart

Southern Power priced $1.3 billion of bonds on Nov. 10 in three tranches, two of which were green.

The green tranches have tenors of three and five years, while the non-green, or 'vanilla', bond has a 30-year maturity.

Bank of America Merrill Lynch, **Barclays**, **BNP Paribas**, **Mizuho**, **Scotia** and **U.S. Bank** were the bookrunners.

Southern Power's senior unsecured debt is rated Baa1 by **Moody's Investors Service** and BBB+ **S&P Global Ratings** and **Fitch Ratings**.

As with the **Southern Company** subsidiary's previous green note offerings, the proceeds of the green tranches are ring-fenced for renewable projects.

The company will use the non-green bond to refinance debt maturing in 2036 and repay short-term borrowings.

The $600 million three-year green bond was priced at 80 basis points over U.S. Treasuries, the $300 million five-year tranche was priced at 100 bps and the $400 million 30-year vanilla bond was priced at 210 bps.

Southern Power became the first investment grade U.S. utility to issue green bonds in November 2015 when it priced a $1 billion dual-tranche offering (PFR, 11/19/15). It has also issued green bonds in euros.

Fellow Southern Company subsidiary **Georgia Power** followed Southern Power into the green bond market in March (PFR, 3/3) and **Westar Energy** joined in with a $350 million offering in June (PFR, 6/14).

A spokesperson for Southern Company in Atlanta did not immediately respond to a request for comment. ■

POWER TWEETS

Mars, Incorporated @MarsGlobal
"Mars Announces Plans For New Wind Farm In Mexico At COP22"

American Wind Energy @AWEA
@AWEA Fact Check: Wind turbines built with same materials used by conventional energy buff.ly/2fCalcZ #windpower

NextEra Energy Res @NextEraEnergyR
A shining example of solar energy at work! We celebrated today the official start of the Blythe & McCoy Solar Energy Centers in Calif.

Daniel Englander @EnglanderDaniel
Whatever happened to 'competitive' #power? Out of market subsidies for #coal and #nuclear aren't real shareholder value @dynegy @Exelon

USGS @USGS
Our biggest estimate of continuous oil yet-20 billion barrels in Texas' Midland Basin: on.doi.gov/2eBCb1P

ThompsonEnergy @ThompsonEnergy
.@FERC dismisses prematurely filed petition for declaration that PURPA preempts @MarylandPSC solar energy regs. bit.ly/2fFZwME

CONFERENCE COVERAGE

Distributed Solar Summit: Industry Weighs Political Risks for Tax Equity

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subsidy, the production tax credit, but also did not rule it out entirely.

Accordingly, Gauntlett also presented a "worst case scenario", setting out what would happen, hypothetically, if the ITC expired in 2017.

In that scenario, demand in the distributed solar market could fall by as much as 50%, with so-called "second tier" markets such as Delaware, D.C., Maryland, Ohio and Pennsylvania hardest hit, he said.

If that were to happen, the industry could experience a wave of consolidation, he added.

TAX REFORM RISK

Besides the potential abolition of the ITC, market participants are also concerned about the possibility of corporate tax reform, which could affect the availability of third party tax equity for distributed solar as well as utility-scale projects.

The coincidence of a Republican administration with a Republican-controlled Congress has heightened expectations of tax cuts.

"A tax reform under a Ryan blueprint raises a lot of questions for renewables tax equity," said **Woody Rubin**, president at **AES Distributed Energy Solutions**, during a panel discussion at the conference, referring to House Speaker **Paul Ryan**'s tax reform plan, published in July, which featured a major cut to corporate income tax.

On the other hand, the emergence of new investors in the tax equity market, including non-financial corporations, is adding to the availability of this type of capital. "The entrance of corporates competing with the banks in the tax equity market has been interesting and really positive for the industry," said Rubin.

The volume of tax equity available is not a limiting factor on deals, said **Hugh Bromley**, senior associate at **Bloomberg New Energy Finance**, adding that tax equity investors' credit criteria represent more of a constraint.

"If you're a tax equity investor and you have a portfolio of opportunities in front of you and some [are with customers who have FICO scores of] 750 plus or corporate institutions, and then you have unrated C&I [counterparties] or scores of 650, you're always going to choose the higher rated deal or a wind farm instead," he said. ■

Distributed Solar Summit: Lenders Discuss Terms of DG Loans

Distributed solar—small-scale projects with sometimes unrated offtakers and varied contracts—has attracted specialty lenders such as **Seminole Financial Services** and **Bridge Bank**. But as the availability of utility power purchase agreements diminishes, larger banks like **MUFG** are beginning to look at portfolios of such assets too.

Fred Zelaya, a director in structured finance at MUFG, **Chris Diaz**, senior v.p. in renewable energy at Seminole, and **Roy Pack**, v.p. in the renewable resource group at Bridge Bank, outlined their offerings in a panel discussion at the **Infocast Distributed Solar Summit** in Los Angeles on Nov. 17.

BACK LEVERAGE?

ZELAYA: We do back-leverage deals very selectively. We have to be very comfortable with all the parties and the structure and the project itself.

DIAZ: We don't do back-leverage. Our source of capital [pension funds] requires that we're at the project level, so we haven't been able to do that, but we've worked with pretty much most of the top tax credit investors and since we've transacted with all of them, we have all of the intercreditors, forebearance agreements and everything in place, so they're comfortable with our debt.

PACK: Do we do back leverage? Yes.

TENOR

ZELAYA: For [back-leveraged] deals it's about seven years. For standard deals, non-back-leveraged deals, we can go out very long, and the longest we usually go out to is 18 years.

DIAZ: Our typical program is a mini-perm, it's a six-year term with a 15-year amortization. Sometimes we'll push that out to 20 years if there's a 25-year PPA or something like that. We have done fully amortizing 10-year loans before. So we can tweak it.

PACK: We prefer mini-perms but we've been all over the map. The longest we've gone is 20 years and this is on a 30-year PPA. It's probably the only 30-year PPA we've seen and I wouldn't call that normal or expected but we have done that. Anywhere from five to 15 is probably the sweet spot for us.

PRICING

ZELAYA: We do lend on a Libor basis so that's baked into the overall interest rate. Generally the spreads we've seen have ranged from 162.5 basis points at the low end to 200 bps to 225 bps. The 162.5 bps is now rare... That being said, our customers tend to be larger corporates, so they tend to get very good rates.

DIAZ: Our source of capital is pension funds, so we peg what our return is to the pension funds. When we first got into this, on a construction loan, our interest rates were 10%. Now we're down to 7% plus or minus depending on the size of the deal. We're not the cheapest out there but we're not Libor-based so our way of looking at it may be different to banks.

PACK: While we can and do do Libor-based loans, a lot of our portfolio is fixed rate loans, which I think a lot of solar developers appreciate... We've got fixed rates that are anywhere from the low fives and up. ■

Platts Mexico: Amid Pacey Reforms, Some Projects May Stumble

Speakers and attendees at the **20th Annual Platts Mexican Energy Conference** on Monday expressed surprise at the speed and success of reforms to the energy market, but suggested that some of the renewables projects that won contracts in the country's first two power auctions may not materialize.

The country's energy and electricity regulators have moved quickly over the past two years to set up wholesale electricity markets, split up the state utility, **Comision Federal de Electricidad**, and organize competitive auctions to allocate power purchase agreements, clean energy certificates and capacity.

LEARNING FROM CALIFORNIA

The Mexican authorities learned from the experience of U.S. states that have deregulated their electricity markets, such as California, said **Jeff Pavlovic**, director general for the coordination of electric power at the Mexican energy regulator **SENER**.

"You can't just set up a market without thinking about how companies will react to it," he said. "[If you do] you're in for a big surprise. You must encourage the behavior you want to see in the market."

Besides introducing competition to the energy market, the reforms are designed to help Mexico meet its clean energy targets and build generation in the parts of the country where it is most needed through auctions of long term contracts.

So far, about 6 GW of projects, mostly wind and solar, representing a total investment of about $6.2 billion, have been successful in the tenders.

IPPs SHUT OUT

Aggressive competition in the auctions has resulted in low power prices that have shut out participants with higher return requirements and led some market participants to question whether all of the winning projects are economically viable.

"There's been very strong competition for long-term CFE contracts," said **David Fatzinger**, general manager at **InterGen**, a developer and independent power producer that entered the Mexican market in 1995. "The auctions have been very successful in the renewable energy sector and for clean energy certificates, I think surprisingly successful. I think all of us have been surprised at the auctions that have not only cleared here in Mexico but in other countries in Latin America and around the world."

Warning that overbuilding may be a risk in some parts of Mexico, Fatzinger added that with prices for solar coming in as low as $24/MWh, "I'm thinking maybe I'm a buyer instead of a developer."

InterGen has already carried out one auction to contract power from third parties to supply its customers, instead of developing plants of its own.

> **"The bidders had to sharpen their pencils in the second auction, and with sharper pencils come reduced margins."**

A representative of another international IPP told *PFR* on the sidelines of the conference that, although his company would continue to bid in Mexican auctions, he wasn't sure that it was a good market for IPPs. "I'm not sure the returns are there," he said.

FAILURE RATES

Many of the winning bidders in the first two auctions were affiliated to solar panel or wind turbine manufacturers, a fact which market participants say helped them to put in more competitive bids. Subsidiaries of European utilities with strong balance sheets were also among the winners.

Even so, observers do not expect all of the awarded contracts to result in operational projects.

"The bidders had to sharpen their pencils in the second auction, and with sharper pencils come reduced margins," said **Barbara Sands**, a senior energy market consultant at **PA Consulting**. "That's going to bring challenges in the ultimate deliverability of some of those projects over time, for them to be able to be economic and go through the hurdles to actually come online."

Sands returned to the example of California, where contracted renewables projects have sometimes failed to reach commercial operations. The **California Public Utilities Commission** adjusts its forecasts for renewable capacity to take into account the project failure rates assumed by investor-owned utilities. In 2014, those failure rate assumptions ranged from 10% to 25%.

An investment banker also compared Mexico's renewables procurement efforts to California's. "A few PPAs dropped out, but it was very successful on the whole," he said of the Californian experience.

THE TRUMP EFFECT

Several conference attendees noted a new risk Mexican projects face. "You saw what the peso did last week," said one analyst over lunch, referring to the precipitous decline in the Mexican currency in the immediate aftermath of **Donald Trump**'s surprise U.S. presidential election victory.

This could affect the cost of solar panels and wind turbines imported for use in Mexican projects, as well as the value of Mexican peso-denominated revenues derived from spot market power sales.

"A LOT OF CAPITAL"

Nevertheless, a second investment banker said there was plenty of capital available for contracted renewables projects in Mexico on the equity side, picking out infrastructure funds as likely investors. "There is a lot of capital out there," he said. "Returns are low, but so is the cost of debt."

Several of the sponsors to have obtained contracts through the auctions have sent banks requests for proposals for non-recourse project debt, but none are so far thought to have awarded firm mandates. The sponsors still have time to secure debt, noted the second banker, since the contracts do not come into effect for two years. ■

● Q&A: MIKE GARLAND, PATTERN DEVELOPMENT—PART II

Mike Garland, Pattern Development—Part II

Mike Garland, ceo of **Pattern Development** and president and ceo of its yield company, **Pattern Energy Group** (PEGI), discusses the latest trends in project finance and gives his view on the state of yieldco equities in the second part of this exclusive interview with **Richard Metcalf**, editor of *PFR*.

PFR: We have been hearing from market participants that pricing on project loans has increased slightly this year, in part as a result of increased costs of funds for commercial banks, especially those in Europe. Have you noticed this and has it had an impact?

Yeah, we feel like it's ticked up a little bit. They're using Basel as an excuse. We think it's baloney for the most part. In years past, we've always seen this cycle of margins expanding and contracting for project financings by banks and I think we're just seeing a little resistance right now with banks wanting to maintain the margins, because they've been coming down over the last couple of years. Up until this last six months, we've been seeing really excellent spreads and there has been a little bit of pushback on spreads in the last three to six months. But some banks are—I think it's a little bit about which banks—some banks are still moving the margins down a little bit and other banks are trying to push back and blame the regulators for their cost of capital.

PFR: Are you able to give a numerical figure to put that in perspective?

We're not talking about much. We're talking about 10, 15 basis points.

PFR: That's the pushback in the last three to six months?

Correct.

PFR: And what about tenors on term loans, or back leverage if tax equity is involved? Bankers tell me you can still get 18-year term loans for projects with 20-year contracts, but they also say sponsors are comfortable with mini-perms and the refinancing risk associated with that.

We're seeing some banks going out 18, even 20 years, depending, as you say, on the PPA term. There are some who can get out there even longer than 20 years. The majority of them though are under 20 years, and a one to two year tail before the PPA expires on the term of the debt.

The bond market is still pretty good if you have a longer-term PPA. We're seeing a little bit more of the combined bond-and-debt combinations to get out longer. And we've also done a number of mini-perms. We're not afraid of mini-perms. In Canada, for example, it's very popular to do mini-perms, so we've tended to do mini-perms in Canada. We did last year do a bond for one of our Canadian projects at just under 4%, so the market's still good. I think in some ways the tenors going out longer or staying out longer is more important than 10 to 15 bps in margin difference. It's very helpful to have the banks playing longer-term.

PFR: That's interesting. You say longer than 20 years? Can you name any deals like that specifically?

I'd rather not. Right now, we've had conversations with a couple of banks about going past 20 years. We probably won't, because our projects tend to be a little bigger and so you have to have a club of banks and so you have a little bit of a balancing act between tenors. A few of them have talked about going longer.

PFR: Can you say which banks?

No.

PFR: Also on the subject of project debt, we've seen NRG Yield finance a drop-down a couple of months ago by raising additional project-level debt (PFR, 9/15). Moving onto the yield company side of things, is that also an option for Pattern Energy?

It is. We have done that, in essence, like the bond deal we did last year for example. A lot of our projects have very high debt service coverage ratios, when you look at the P50, like 1.7 coverage. So we have very strong, I think higher than most banks require and higher than most in the industry have in terms of our debt service coverage ratios. So that would imply that we are underleveraged at the project level.

We think that's pretty good, in the sense that it's always good to have a little extra room to play with. We're not big leverage guys, we don't like high leverage, and so we're a little bit cautious about trying to go out and have maximum project level debt. But it is something we look at all the time and we'll decide whether we want to go there or not. If we want to add some debt it's always a little easier to add at the holdco level, but we're always looking at how to optimize the project debt.

For us, the size of the debt, meaning increasing the amount of debt, in some cases is less important than extending the tenors and optimizing the amortization of our projects, as opposed to just raising more capital and just leveraging our assets more.

PFR: Looking at the stock prices of the yieldcos, it doesn't look like they've performed particularly well in the last three months. How does that affect the prospects for drop-down acquisitions?

We've said we've got capital currently to do potentially another drop or two. So one of the things we've learned in the public markets is you've got to be patient. When times are good, you've got to take advantage of it, and when times are lean, you've got to relax and not overreact to it.

Right now, we've positioned ourselves to be able to continue to do some dropdowns if we choose to do that. We have recent-ly dropped a project, Armow (PFR, 8/17), and we have a new big project coming on, Broadview, in the coming months, so we're still expanding at PEGI our projects without having to raise more capital, and we'll just see how the capital markets work. There are other ways to raise capital as well that could complement and extend out the capital raising we have to do.

So while the stock, we believe, is still way undervalued, as you can imagine, it still seems to be driven less around the performance of our stock and other peer companies' stock than it is by bigger macroeconomic drivers. They are really moving the stock value more than our performance.

We have performed exceedingly well, I think, in light of some tough wind over the past couple of years with El Niño, and we have offset that and managed that, meeting our [cash available for distribution growth target]. If you look at our growth, we've continued to grow even in light of that.

We would love to see the market be better so that we can raise more capital easily and do more dropdowns that are accretive. We're patient, but we also like to figure out other ways of doing things to improve our stock value for our shareholders.

Our assets are performing well and we have to give credit that this is still a fairly nascent industry. It's only three years old and we've had some really turbulent times to work through. There has been—in addition to the whole energy markets bouncing around—in our industry, some of our peers have created uncertainty for us, and I think investors are starting to understand who are the long-term players, who are the more predictable players, and I think that the industry will benefit from that over the long run. But in the short run, you'll have periods of time when it's a little tighter than we would like to see.

PFR: You mentioned possible other ways to raise capital. PEGI issued a convertible bond last year and some of your peers have also issued straight debt in the capital markets at the corporate, yieldco level. Are those the sorts of things you had in mind? Maybe even a 'green' bond?

Yeah, the debt markets are certainly available to us, we could refinance some of our debt, like I said. At the corporate level, we could raise additional debt if we wanted to and extend it out, which would obviously increase our cashflows. There are other ways to extend our debt or capital. Like I said, we have some excess capital that we can use to reinvest in the business, and we could do a dropdown and do it with a partner as opposed to 100% ourselves, so that we can expand the amount of capital we have available to us to multiple projects. There are a variety of tools that we have available to us to help meet our dropdown requirements.

PFR: When you say your dropdown requirements—obviously you've got a development company that has a pipeline of projects that will be getting financed and entering construction and being completed—if you're being patient, does that mean you would hold the projects in the devco for longer?

Well, we did that last year, so certainly our devco has been co-operative in helping ride through these waves of the public markets, and so I think we demonstrated that very strongly last year for the over a year we did not go to the public markets and we kept developing and building projects.

Armow was in operation before we dropped it down to PEGI and so that is always a possibility. There are other possibilities. We could potentially jointly finance it with a partner with what funds PEGI does have and reinvest capital out of our cashflows. Or maybe we'd look to what I call high-grading our assets: We could sell an asset and invest [the proceeds] into a higher accretive project. So there's a lot of ways to use your capital to improve shareholder value. We're looking at all of those, but we need to be patient because we think these are cycles less driven by the quality of our assets and our business than bigger-picture issues, and what we want to do is be able to continue demonstrating to the market that we will do what we said we were going to do. And I think the market is starting to get more confidence.

We have a great relationship between the devco and PEGI and so it allows us some other unique opportunities. We think it's an advantage to have a private company as a development partner because they don't

Mike Garland

have the same public balance sheet concerns about keeping things on their balance sheet that a public company would. So they can be a little more flexible than a public company on the parent side.

It allows us to seek alternative financing over there as well. We're not big on warehouse facilities, but there are ways to do simple financing that allows us to carry projects—even just additional debt. When you have operating assets at the development company, you now can raise debt. For years, at the devco, we did not raise debt. There was no reason to, and it was more of an equity business, but if we have to keep construction and operating assets on our balance sheet at the devco, then you can raise project debt or portfolio debt against those assets and still have capital available to reinvest in your development business. And so, all those tools are available to use right now if the markets don't improve.

But I'm optimistic they're going to improve. If you look around at some of these returns, these yields, they're just too good to pass up. The quality of the assets, particularly that we have, and the yield we're providing is really pretty extraordinary for the times right now, when you think about the money market and other funds, the risk in our business relative to a money market, and the spreads are just huge right now.

Check last week's PFR for to the first part of this interview, in which Garland gave his view on trends in the availability and pricing of power purchase agreements, the competitiveness of offshore wind and the latest developments in the tax equity market. ■

STRATEGIES

N.J. Developer Scores Equity Commitment

New Jersey-based solar shop **Soltage** has closed the first part of a $140 million equity investment that it will use to develop a 100 MW portfolio of projects in the U.S.

The investor, **Basalt Infrastructure Partners**, is providing the capital in two $70 million chunks. The first has closed and the second is expected to close in the first half of 2017.

Marathon Capital advised Soltage on the equity raise.

The developer has begun construction on the first three projects that will be owned by the capital vehicle, which is Soltage's sixth. Totaling 15 MW, the three projects are located on landfill sites in Massachusetts and will sell their output to municipal offtakers under virtual net metering agreements.

Jesse Grossman

"The C&I sector has had its challenges in both the debt and tax equity space, vis-à-vis residential and utility-scale, based on the individual size of assets and some of the credit metrics"

The other projects that will be make up the portfolio could be commercial and industrial or small utility-scale assets either originated or acquired by Soltage, says **Jesse Grossman**, the developer's co-founder and ceo in Jersey City.

"The mandate for investments of this capital is really across the U.S. in the large C&I and utility-scale space, which is a pretty inclusive category," says Grossman. "That includes behind-the-meter [power purchase agreement] assets, in-front-of-the-meter assets selling power at retail rates through community solar and virtual net metering, and it also includes more utility-scale deals in the 5 MW to 20 MW range, similar to what we've been doing in Vermont and North Carolina."

The developer has already obtained all the tax equity it needs for the portfolio. Grossman declined to identify the tax equity investor.

Soltage will also finance the projects with debt. "We keep active discussions with the financing community, the lender community," says Grossman. "And there is a deep appetite right now for investment in well-structured portfolios of solar assets."

"The C&I sector has had its challenges in both the debt and tax equity space, *vis-à-vis* residential and utility-scale, based on the individual size of assets and some of the credit metrics," he notes, adding that Soltage has overcome these hurdles by, among other things, grouping assets together and bringing them to the debt market together. "That's what we plan to do here, to batch together a number of assets that are either ready for construction or have already been built, and take them out to our financing partners."

The timing of the announcement, just a week after **Donald Trump**'s surprising presidential election victory, shows that investors remain confident in the C&I and small utility-scale solar sector, adds Grossman.

Tenaska became the majority owner of Soltage in March 2015, after initially investing in the company in 2008 (PFR, 3/13/15).

The two companies jointly acquired a portfolio of distributed solar projects on the U.S. East Coast in December. Those projects, which were expected to be online by mid-2016, have net metering and power purchase agreements with municipal and healthcare offtakers. ■

REPORTER'S NOTEBOOK

A show and tell story, a slip of the tongue and an odd metaphor for battery storage leaped out from the pages of the *PFR* reporter's notebook following recent conferences in Mexico City and Los Angeles.

Veteran project finance attorney and talented **Platts Mexican Energy Conference** chair **Dino Barajas** recalled a tough gig he had faced several years ago. When his daughter came home in tears after watching "An Inconvenient Truth" to ask him what he was going to do about climate change, he ended up at show and tell with a model wind turbine. "I had to compete with a turtle and a hamster," he recollected.

It's easily done, but a simple slip of the tongue can dramatically alter market sentiment. Asked for his take on the post-election distributed solar market at the **Infocast Distributed Solar Summit** in Los Angeles, **AES Distributed Energy Solutions** president **Woody Rubin** initially said he was "bearish", before being helpfully corrected by moderator **Tony Toranto**, partner at **Sheppard Mullin**: "I think you mean bullish."

Discussing a topic of interest in front of a room of conference-goers often brings out panelists' poetic instincts, with mixed results. "Energy storage is the bacon of the grid," said one speaker during a discussion of the prospects for small-scale distributed solar, adding, by way of explanation: "It just makes things better." ■

ONE YEAR AGO

Southern Power became the first investment grade U.S. utility to issue a green bond (PFR, 11/23/15). [Southern Power has returned to the green bond market (see story, page 6).]

QUOTE OF THE WEEK

"We feel like it's ticked up a little bit. They're using Basel as an excuse. We think it's baloney for the most part."

Mike Garland, ceo of **Pattern Development** and **Pattern Energy**, on the modest pushback on project finance loan margins in the last three to six months and the reasons for it given by lenders.

