

# Power Finance & Risk

Exclusive Insight on Power M&amp;A and Project Financing

By the publisher of GlobalCapital

## ● PROJECT FINANCE

## ● MERGERS &amp; ACQUISITIONS

## ● PEOPLE &amp; FIRMS

## EDF RE Nets Tax Equity from GE, MetLife

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**Carlos Domenech** has left his position as CEO of **TerraForm Power** and **TerraForm Global** at the request of the yield companies' boards. Page 8

# Ares-EIF Secures Debt for St Joseph

Olivia Feld

Ares-EIF closed the financing for the 700 MW St Joseph gas-fired combined-cycle project in Indiana on Nov. 24.

**BNP Paribas** and **Crédit Agricole** are coordinating lead arrangers on the deal, which consists of a \$400 million term loan and letters of credit. **Société Générale**, **Siemens Financial Services**, **ICBC** and **Wells Fargo** also took tickets, a deal watcher tells *PFR*.

The construction plus five-year term loan was priced at 325 basis points over Libor, consistent with other recent transactions in PJM.

The project, located in St. Joseph County, has a hedge agreement with an undisclosed counterparty. The facility is slated to be online in June 2018 and took part in the **PJM Interconnection** capacity base residual auction for delivery years 2018 – 2019.

Lenders have either hit or are approaching their maximum desired exposure to PJM for the year, according to the deal watcher, who says that a number of outstanding deals in the region could be pushed into 2016.

**Panda Power Funds**, **Moxie Energy** and **Caithness Energy** closed deals for projects in PJM within the last month (*PFR*, 10/26) [PAGE 2 »](#)

## Q&A: Santosh Raikar, State Street – Part II

In the second half of this exclusive interview, **Santosh Raikar**, m.d., renewable energy investments, at **State Street**, talks to *PFR* managing editor **Olivia Feld** about planning for the investment tax credit step down, competition with corporations for tax equity deals and appetite for renewables outside of wind and solar.

**PFR:** Do you envisage a rush of deals next year assuming that the step down stays in place?

If you go to five people you'll get five different opinions on what will happen to the ITC legislation. But most tax equity players are assuming that ITC step down will happen and they are trying to fill up their bucket as [PAGE 6 »](#)

## Calpine Seals \$460M Refi Deal

Olivia Feld

Calpine has closed a \$460 million debt package to refinance the two gas-fired combined-cycle projects held in its Steamboat Holdings portfolio.

The financing backing the 365 MW Mankato Power Plant in Mankato, Minn., and the 250 MW Freeport Energy Center in Freeport, Texas, closed on Nov. 19, a deal watcher tells *PFR*.

**MUFG**, **Crédit Agricole**, **CoBank**, **Siemens Financial Services**, **CIC**, **SMBC** and **Associated Bank** arranged the financing. **MUFG** was administrative agent. The four-year loan was priced at 162.5 basis points over Libor.

The Houston-based independent [PAGE 5 »](#)

### Recently Closed Bank Market Loans in PJM

Sponsor	Project	Tenor	Pricing
Ares-EIF	St Joseph (700MW)	C+5	L+325 bps
Panda Power Funds	Hummel (1GW)	6.5	L+ 375 bps
Moxie Energy & Caithness Energy	Freedom (1.5 GW)	C+5	L+325 bps

Source: *PFR* data

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





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## ● PROJECT FINANCE

# Ares-EIF Secures Debt for St Joseph

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(PFR, 11/10). Sponsors including **NTE Energy** and **Invenergy** have projects in PJM which they are looking to finance.

Many of the banks in the deal for St Joseph's were slated to participate in a debt financing backing **Genesis Power** and Ares-EIF's 755 MW Keys Energy Center earlier this year, says the deal watcher. The

financing backing the gas-fired project in Brandywine, Md., was scrapped when the project was sold to **PSEG Power** (PFR, 6/19).

Earlier this year, BNP Paribas and Crédit Agricole worked together to arrange debt financing for the **NTE Energy** 525 MW Middletown combined-cycle gas-fired project in Butler County, Ohio (PFR, 7/31). In October the sponsor announced it

had sealed \$402 million in various senior secured credit facilities backing the project.

Ares-EIF has an 80% equity stake in the St Joseph project and **Toyota Tsusho Corp.** has the remaining 20% stake.

A spokesperson for Ares-EIF in New York declined to comment. Spokespeople for BNP Paribas and Crédit Agricole did not respond to inquiries. ■

# GE, MetLife Invest Tax Equity in EDF Wind Project

**EDF Renewable Energy** closed a deal to sell tax equity in its Pilot Hill wind project to subsidiaries of **General Elec-**

**tric** and MetLife on Nov. 16, according to a filing with the U.S. **Federal Energy Regulatory Commission**.

Pilot Hill, a 175 MW facility located 60 miles southwest of Chicago in Kankakee and Iroquois counties, Ill., went online in September 2015. The turbines are supplied by Denmark-based **Vestas** Wind Systems and GE.

**EFS Renewables** and **MetLife Renewables**, wholly-owned by GE and MetLife respectively, purchased equal

shares of Pilot Hill's tax equity, taking 50% each of the passive class A interests in the project.

EDF RE, which purchased the project from developers **Vision Energy** and **Orion Energy Group** in July 2014, retains ownership of all the cash equity in the project (PFR, 7/24/14).

The project sells its output to **Microsoft**, whose Chicago data center is situated on the same grid, under a 20-year power purchase agreement. ■



Photo: Fotolia

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



## GENERATION AUCTION &amp; 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
ArcLight	Michigan Power (125 MW Gas)	Ludlington, Mich.		Rockland Capital has agreed to acquire the project with a group of minority investors (PFR, 10/26).
ArcLight, Maine Public Employees Retirement System, Treasurer of the State of North Carolina, the State of Texas	Woodbridge Energy Center (725 MW Gas)	Middlesex County, N.J.		Investors are selling their combined 38.8% stakes in Competitive Power Ventures' project back to CPV. John Hancock and Toyota remain minority owners (PFR 11/23).
CarVal Investors, Merrill Lynch Credit Products, Värde Partners, other financial investors	Granite Ridge (745 MW Gas)	Londonderry, N.H.		Calpine has launched a \$550M secured loan to back its acquisition of Granite Ridge (PRF, 11/16).
Community Energy	Amazon Solar Farm U.S. East (80 MW Solar)	Accomack, County		Dominion Energy has acquired the project, which will sell power to Amazon Web Services (PFR 11/23).
DTE East China (DTE Energy)	East China (350 MW Gas)	East China, Mich.		DTE Electric, another affiliate of DTE Energy, acquired the facility for \$69 million after an RFP process (PFR, 11/9).
EDF EN Canada	Rivière-du-Moulin (350 MW Wind)	Fjord-du-Saguenay, Québec, Canada		Manulife, Industrial Alliance Insurance and Financial Services and Desjardins have purchased EDF EN Canada's stake in the project (PRF, 11/16).
● EDF Renewable Energy	Spinning Spur 3 (194 MW Wind)	Oldham County, Texas		BlackRock acquired 50% of Spinning Spur 3, a 194 MW wind farm in Oldham County, Texas from EDF Renewable Energy (see story, page 5).
Entergy Corp.	Rhode Island State Energy Center (583 MW Gas)	Johnston, R.I.		The Carlyle Group is raising \$375 million of debt and contributing \$207 million of sponsor equity to acquire the project (PRF, 11/16).
Fotovoltaica Los Prados	Los Prados (53 MW Solar)	Choluteca region, Honduras		Scatec and Norfund have acquired the project, which has an expected construction cost of \$100 million (PFR, 11/2).
Greenleaf Power	Eel River Project (28 MW Biomass)	Humboldt County, California		Humboldt Redwood Co. has purchased the facility to generate steam and electricity to power its sawmill operations (PFR, 11/16).
IFM Investors	Portfolio (1.08MW Gas, Oil, Hydro)	U.S.	Morgan Stanley	IFM has launched the sale of its Essential Power portfolio (PFR, 8/31)
LS Power	Portfolio (4,300 MW Gas)	U.S.	Citi, Morgan Stanley	The auction for the assets is in an "extended second round" according to a deal watcher (PRF, 11/16).
MACH Gen creditor group	Athens (1.08 GW Gas)	Greene County, N.Y.		The deal has closed. Talen Energy pulled a planned \$400M term loan B in connection with the \$1.175B acquisition (PFR 10/23).
	Millenium (360 MW Gas)	Charlton, Mass.		
	Harquahala (1.092 GW Gas)	Maricopa County, Ariz.		
Northwest Power Services	Red River (52 MW Hydro)	Rapides Parish, La.		Private equity-owned FFP New Hydro has acquired the project (PFR, 11/9).
NRG Energy	Shelby County Generating Station (352 MW Gas)	Neoga, Ill.		A subsidiary of NRG Energy is selling the project to a fund managed by Rockland Capital (PFR 11/23).
Olympus Power	York Haven Hydro Station (20 MW Hydro)	York County, Pa.		I Squared Capital subsidiary Cube Hydro Partners has purchased the project (PFR 11/23).
Piedmont Natural Gas	Cardinal (Gas pipeline)	North Carolina	Barclays (buyer), Goldman Sachs (seller)	Duke Energy has acquired Piedmont Natural Gas for \$4.9 billion (PFR, 11/2).
	Constitution (Gas pipeline 24%)	Pennsylvania, New York		
	Atlantic Coast (Gas pipeline 10%)	W. Virginia, Virginia, N. Carolina		
● Riverstone Holdings and U.S. Renewables Group	Bottle Rock (55 MW geothermal)	Lake County, Calif.		AltaRock Energy subsidiary Baseload Clean Energy Partners has purchased a 55 MW dry-steam facility in Lake County, Calif. (see story, page 5).
Solar Frontier Americas	Morelos del Sol (15 MW Solar)	Kern County, Calif.		Southern Power has acquired the project, which was part of a 280 MW solar portfolio that Solar Frontier bought from Gestamp Solar in April (PFR, 11/2).
Talen Energy	Ironwood (778 MW, Gas)	Lebanon, Pa.	Credit Suisse, Kirkland & Ellis (legal)	TransCanada has agreed to acquire the project for \$654M following an auction (PFR, 10/12).
	Holtwood (252 MW, Hydro)	Holtwood, Pa.	RBC Capital Markets, Simpson Thacher & Bartlett (legal), Morrison & Foerster (legal, buyer)	Brookfield Renewable Energy and institutional partners have agreed to acquire the assets for \$860 million (PFR, 10/12).
	Lake Wallenpaupack (40 MW Hydro)	Hawley, Pa.		
	C.P. Crane (399 MW Coal)	Middle River, Md.		
● TAQA (Abu Dhabi National Energy Co.)	Lakefield Wind Project (206 MW Wind 50%)	Jackson County, Minn.		Abu Dhabi National Energy Co. subsidiary TAQA Energy Solutions is selling a 50% stake in the 206 MW Lakefield Wind Project to Nebras (see story, page 5).

## ● New or updated listing

The accuracy of the information, which is derived from many sources, is deemed reliable but cannot be guaranteed.



## 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
Ares EIF	St Joseph Energy Center (700 MW Gas)	New Carlisle, Ind.	BNP Paribas	Term	\$400M	TBA	The deal has closed (see story, page 1).
Calpine	Mankato Power Plant (365 MW gas-fired)	Mankato, Minn.	MUFG, Crédit Agricole, CoBank, Siemens Financial Services, CIC, SMBC and Associated Bank	Debt	\$460M	4-yr	The deal has closed (see story, page 1).
	Freeport Energy Center (250 MW gas-fired)	Freeport, Texas					
Competitive Power Ventures	Towantic (805 MW Gas)	Oxford, Conn.	GE EFS, ING, Natixis, MUFG, NordLB, Mizuho	Debt	TBA	TBA	The sponsor is in the market for debt and is in talks with the lenders listed here (PFR, 8/17).
Citizens Energy Corp, ClearGrid Energy	Portfolio (Capacity Unknown, Solar)	Massachusetts	TBA	Debt, Tax Equity	TBA	TBA	Sponsors will seek tax equity and debt financing for a number of community solar projects (PFR, 10/26).
EDF Renewable Energy	Slate Creek Wind Project (150 MW Wind)	Sumner County, Kan.	TBA	Tax Equity	TBA	TBA	A subsidiary of EDF RE is selling tax equity in the 150 MW Slate Creek Wind Project to MUFG Union Bank (PFR, 11/23).
Energy Transfer Partners	Trans-Pecos (143-mile Gas Pipeline)	Pecos County, Texas, to Presidio, Mexico	BBVA, Mizuho, MUFG, SMBC	TBA	\$646.9M	20-yr	ETP has closed \$1.16 billion in debt financing for two natural gas pipelines that will connect Texas' Waha hub to the Mexican border (PFR, 11/23).
Energy Transfer Partners	Comanche Trail (195-mile Gas Pipeline)	Pecos County, Texas, to El Paso, Mexico	BBVA, Mizuho, MUFG, SMBC	TBA	\$508.2M	20-yr	
GE, MetLife	Pilot Hill Wind Project (175 MW Wind)	Kankakee and Iroquois counties, Ill.	TBA	Tax Equity	TBA	TBA	The deal has closed with GE and MetLife taking 50% each of the passive class A interests in the project (see story, page 2).
Hunt Consolidated	Southline Transmission	New Mexico, Arizona	TBA	TBA	TBA	TBA	Hunt has cleared two major regulatory hurdles towards financing its \$800M project (PFR, 11/16).
Invenergy	Clear River (900 MW+ Gas)	Burrillville, R.I.	TBA	TBA	TBA	TBA	The project is slated to cost \$700M to develop (PFR, 8/10).
LS Power	University Park North (540 MW Gas)	University Park, Ill.	TBA	TBA	TBA	TBA	LS Power is refinancing three gas-fired peakers that are part of larger portfolio of assets up for sale (PFR, 11/16).
	University Park South (300 MW Gas)	University Park, Ill.	TBA	TBA	TBA	TBA	
	Riverside (856 MW Gas)	Zelda, Ky.	TBA	TBA	TBA	TBA	
Magnolia LNG	Magnolia LNG (80 mtpa LNG)	Lake Charles District, La.	TBA	Debt	<=\$3B	TBA	Teasers are likely to be sent out in early October (PFR, 8/10).
NextEra Energy	Carousel (150 MW Wind)	Kit Carson County, Colo.	JP Morgan, Wells Fargo	Tax Equity	TBA	TBA	JP Morgan and Wells Fargo are investing tax equity in the project (PFR 11/16).
NRG Energy	Carlsbad Energy Center (632 MW Gas)	Carlsbad, Calif.	TBA	TBA	TBA	TBA	The sponsor is "exploring financing options" for the \$850M project (PFR, 11/9).
Panda Power Funds	Panda Sherman (1,200 MW Gas post expansion)	Grayson County, Texas	TBA	TBA	TBA	TBA	The 450 MW expansion project is pegged at a cost of \$200M to \$300M (PFR, 8/30).
Pattern Energy	St. Joseph (138 MW Wind)	Manitoba, Canada	TBA	TBA	TBA	TBA	Pattern is refinancing the project's 20-year loan sealed in 2010 (PFR, 11/9).
Recurrent Energy	Astoria (100 MW Solar)	Kern County, Calif.	Santander, Nord LB, Rabobank, Key Bank, CIT Bank	Construction, Term Loan	\$260M	TBA	Recurrent Energy has sealed \$260M in debt and tax equity for the project, which has a 15-year PPA (PFR, 11/23).
			GE Energy Financial Services	Tax Equity	TBA	TBA	
RET Capital	Coram (102 MW Wind)	Kern County, Calif.	Capital One	Tax Equity	TBA	TBA	Renewable Energy Trust Capital has requested authorization for a tax equity investment from Capital One for the project (PFR, 11/23).
Rockland Capital	Michigan Power (125 MW Gas)	Ludington, Mich.	BNP Paribas	Term Loan	\$216M	7-yr	Price talk on the term loan is said to be around Libor plus 375 basis points (PFR, 11/23).
				Credit Facility	\$47M	5-yr	
sPower	Eden Solar (48 MW Solar)	Richmond County, N.C.	U.S. Bancorp	Tax Equity	\$52.6 M	TBA	U.S. Bancorp has taken federal tax equity in the project (PFR, 10/26).
sPower	Latiga (62 MW Wind)	San Juan County, Utah	EFS Renewables	Tax Equity	TBA	TBA	sPower is seeking authorization for tax equity investments for a wind and solar project (PFR, 11/9).
sPower	Sandstone (45 MW Solar)	Florence, Ariz.	Wells Fargo	Tax Equity	TBA	TBA	
Samsung	Windsor (50 MW Solar)	Windsor, Ontario	TBA	Tax Equity, Debt	TBA	TBA	Samsung Renewable Energy seeking debt and equity financing for two Canadian solar projects (PFR, 11/23).

### New or updated listing

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## PROJECT FINANCE ●

## Calpine Seals \$460M Refi Deal

◀ FROM PAGE 1

power producer wanted to push out the loan's maturity by a few years and bring the pricing in line with other similar recent financings, says the deal watcher. Several banks that had participated in the initial financing, including **HypoVereinsbank** and **HSB Nordbank**, were not involved in the latest deal.

It is the second time that the projects have been refinanced. In 2009, **Calyon** and **WestLB** wrapped a \$498.5 million eight-year loan priced at 287.5 bps over Libor in a reverse flex deal. Price talk had been 300 bps over Libor (PFR, 11/23/09).

CoBank and Calyon led the original \$503 mil-

lion financing backing the portfolio in 2005. The five-year loan was priced at 175 bps over Libor, rising to 200 bps as it matures. The deal won *PFR's* Americas deal of the year, partly because it was structured when the sponsor was seen as a candidate for bankruptcy (PFR, 5/19/06).

**Northern States Power** has a 20-year power purchase agreement with the Mankato project. **The Dow Chemical Co.**, has a 25-year power and steam purchase agreement for 200 MW with the Freeport project. **Calpine Energy Services**, an affiliate of Calpine, has an index-based power purchase agreement with Freeport for the remaining 50 MW.

Calpine considered selling the Mankato proj-

ect in 2011, but later decided to hold on to it and instead almost double the project's size. The sponsor invited bids for the project but decided to shelve plans to sell after receiving first round bids that were too low (PFR, 8/3/11).

The sponsor plans to expand the Mankato project by 345 MW to serve a 20-year PPA with **Xcel Energy** (PFR, 4/4/14). The new capacity could come online any time from June 2018 onward, according to Calpine's website. Plans to finance the expansion could not be learnt by press time.

Spokespeople for Calpine in Houston and MUFG in New York did not immediately respond to inquiries. ■

## MERGERS &amp; ACQUISITIONS ●

## BlackRock Invests in Third EDF Wind Project

BlackRock has acquired 50% of Spinning Spur 3, a 194 MW wind farm in Oldham County, Texas, from **EDF Renewable Energy**, as part of an infrastructure partnership announced in February.

The two companies have so far announced five acquisitions under the partnership, of which Spinning Spur 3 is the third to close.

BlackRock announced the acquisition of 50% of the 200 MW Hereford wind project in Deaf Smith County, Texas, in February, and the purchase of half of the 200 MW Longhorn wind project in Floyd and Briscoe counties, Texas, at the end of September (PFR, 10/1).

The value of the transactions has not been disclosed.

Spinning Spur 3, which EDF RE acquired from **Cielo Wind Power** in 2014, went online in September. The project sells 26% of its output to

**Garland Power & Light** and 74% to **Georgetown Utility Systems** under long-term power purchase agreements.

BlackRock has also agreed to acquire stakes in the 250 MW Roosevelt project and the 50 MW Milo project, both in Roosevelt County, N.M., once construction and tax equity financing is in place. EDF RE has requested authorization to sell tax equity stakes in Roosevelt and Milo to **BAL Investment & Advisory** and **Allianz of America**, according to a filing with the U.S. **Federal Energy Regulatory Commission**, dated Oct. 30.

Roosevelt and Milo are expected to produce test power by the end of the year. Roosevelt will sell all of its output to the **Southwest Public Service Co.** under a long-term power purchase agreement, while Milo will sell its output into the SPS's wholesale market. ■

## AltaRock Acquires Geothermal Facility

**Baseload Clean Energy Partners**, a subsidiary of Seattle-based geothermal developer **AltaRock Energy**, has purchased a 55 MW dry-steam facility in Lake County, Calif. From **Riverstone Holdings** and **U.S. Renewables Group**.

The project, called Bottle Rock Power, is one of many geothermal plants located in the Mayacamas Mountains of northern California.

U.S. Renewables Group acquired the project in 2005 and sold a 50% stake to Riverstone the following year.

The project has a long-term power purchase agreement with **Pacific Gas & Electric**, but was not operational in July, according to a filing with the U.S. **Federal Energy Regulatory Commission**.

BCEP intends to add energy storage facilities to the project, said the company's ceo **Aaron Mandell** in a statement.

The purchase price was not disclosed. Representatives for AltaRock, Riverstone, and U.S. Renewables Group did not immediately respond to inquiries. ■

## Qatari Investor Takes Stake in Minnesota Wind Farm

**Abu Dhabi National Energy Co.** subsidiary **TAQA Energy Solutions** is selling its 50% stake in the lessee of the 206 MW Lakefield wind farm in Jackson County, Minn. to Qatari investment company **Nebras Power**.

TAQA initially purchased its stake in the project from **EDF Renewable Asset Holdings**, a subsidiary of **EDF Renewable Energy**, in 2013 (PFR 1/15/13). The remaining 50% is held by an indirect subsidiary of **Marubeni**.

Nebras was formed in 2014 as a partnership between **Qatar Electricity and Water Co.**

(60%), **Qatar Petroleum International Limited** (20%), and **Qatar Holding** (20%), three government-owned entities.

Canadian pension fund manager **OPTrust** Union Bank became the owner and lessor of the project as part of a tax equity sale and lease-back transaction in October 2011, according to a filing with the **Minnesota Department of Commerce**.

The facility, which has a 20-year power purchase agreement with **Indianapolis Power & Light**, went online in Oct. 2011. ■



## ● Q&A: SANTOSH RAIKAR, STATE STREET - PART II

# Q&A: Santosh Raikar, State Street - Part II

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much as they can. At least, that is our business strategy. We are open for business and we are lining up as many deals as we can. From that perspective there are going to be a lot more deals in the market, there will be a lot more construction happening, there will be a lot more deal flow that will be seen coming to fruition.

**PFR:** With that in mind, a number of sponsors have said they are holding on to their own tax equity and choosing to use the credits themselves. Are you seeing more of this strategy in the market?

I don't see a material change in that. There have been certain segments of the market that have self-absorbed the tax capacity. It has been so and will remain so in 2016, and I don't see any uptick or downtick in that particular segment. In fact, I think it's the other way around, in the sense that the marginal projects, which otherwise would have gone to the strategics, are coming to the market for tax equity because you can get one more deal done through the tax equity route, as opposed to going back to your limited strategic pockets.

**PFR:** It's been widely reported that there have been fewer and fewer power purchase agreements available. How does that affect tax equity lenders like yourself looking at backing quasi- or even fully merchant projects?

We wouldn't do merchant solar projects at State Street. We are not necessarily looking into projects with 25-year PPAs alone. We are willing to go down to 15-year PPA, 10-year PPA, but we won't go below 10 years. So we haven't looked at hedge deals either.

On the wind side, there is a market for hedged wind deals and that market segment is well supported, meaning there is enough supply and enough demand for this product. We have not participated in hedged wind deals, and it is not for a lack of interest. There is nothing in our investment guidelines that says we cannot do hedged wind deals. But the reason we haven't done hedge wind deals is purely economic.

What happens in typical hedged wind trans-

actions, for example, there are certain turbine manufacturers who are willing to put in the tax equity. Furthermore, there are also commodity hedge providers who are willing to put in tax equity. We are a pure play tax equity investor. If the turbine manufacturer puts in tax equity, they already have made money on the turbine sales. If the commodity hedge provider is willing to put in tax equity, they already made money on the commodity hedges. I have worked with the commodities traders during my investment banking career and so I know how lucrative those deals can be. So for a pure play tax equity investor, what is there for us?

That has been the problem, because the deals are not attractive enough for us to be interested, and at the end of the day we have a finite bandwidth and we are focused more on solar than on wind, so what happens is we end up rejecting those deals or end up doing PPA deals on the wind side.

**PFR:** Google recently took tax equity in a wind project. What impact are those types of corporate entities having on the market right now?

There are two ways they can play. The first one is that they can participate in tax equity. We have partnered with Google in the past, which is public knowledge. From our perspective, although we are a long standing tax equity investor, we think that more players is better. Google has been a tax equity investor for a long period of time. There are newer players and we welcome their participation.

The second way corporates play into the market is by being an offtaker. We have a track record with one of the largest retailers in the U.S. and we like those deals. We don't have too many of those corporate PPA deals, but we do get inquiries and we see more and more of those inquiries than in the past. We're looking at those deals favorably because many of these corporates have very good credit ratings. Moreover, they have a genuine desire and need for green power and this is a very good entry

into the market for the PPAs.

**PFR:** You mentioned you have partnered with Google. What kind of other partners and co-investors are you working with?

On the wind side, we have mostly done club deals. Again, there is nothing in our investment guidelines that says we have to do club deals. However, the size of wind deals is large enough to necessitate syndications. On the solar side, we have done primarily bilateral deals, with a couple of exceptions.

Part of the reason is that solar deals are small enough that we can do it ourselves. Also, working on a syndicated ITC deal is a little more difficult than a syndicated PTC deal. On the PTC side, there is a revenue procedure, on the ITC side there is no revenue procedure. Different institutions have different requirements and guidelines, so putting them together is bit difficult. On the PTC side, on the

wind side, we have done work with all the major players. A lot of this information is in the public domain so you can look it up and see whom we are partnered with. Most of them have been financial investors as opposed to the corporates.

**PFR:** In the time that State Street has been involved in this market - since the 1990s - how have the tax equity structures evolved?

Unfortunately, it has been a one trick pony. We have done almost exclusively unlevered partnership flip structures. It is not for the lack of desire or appetite for other structures, but it has just been like that.

We can do solar sale and lease back structures. When I joined State Street, early on we saw a lot of deal flow in that market, but as the solar market has matured we have seen less and less of those deals. So the structural preference is more market driven than our appetite. If we can get a sale leaseback deal in the solar sector, we will be happy to do it.

As for the inverted lease back structure, we



Santosh Raikar



## Q&amp;A: SANTOSH RAIKAR, STATE STREET - PART II ●

have dabbled in that, spending a lot of time on it. Again, the kind of deal and structures that were put in front of us were not congruent with our risk appetite on the tax side, which has been the main impediment in doing inverted lease structures. We have been spending a lot of time this year assessing what the step down of the ITC will do to our product offering, and through that reassessment we have figured out what structures would work in 2017, if the ITC goes down to 10%, but it's harder to pinpoint given the deal flow we are busy with.

**PFR: With that in mind, and as we are seeing solar securitizations slowly creep up in terms of prevalence in the market, how would you respond to lenders who say tax equity structures pose difficulties for ABS and wider back leverage?**

I'll answer that question in a broader way, because back leverage matters both for residential and utility scale projects. On the residential side, our investments haven't been part of the securitizations we have seen in the market. Part of the reason is that most of the deals that have been securitized were in inverted lease structures, and we haven't done that structure, as I just mentioned.

Our investments have been part of back leveraged facilities, which are basically back leveraged loans, for both residential solar and utility scale solar and wind projects. Some of the issues that come forth under the securitization side also come under the back leveraged lending side. The difference is, when you compare to securitization, back leveraged lenders are a lot more malleable, more flexible, they understand the risks better, compared to the rating agencies, and there is an evolution and an education part that needs to happen for the unleveraged partnership flip structure for it to make its way to securitization.

I don't want to say that tax equity is not a constraint to back leveraged loans, but there are banks that are flexible and they are smart about tax equity and they have been able to step up and understand the tax equity structure and work within the constraints imposed by the tax equity itself. We have been proud participants in certain back leverage facilities, and if you look into who the lead underwriters are, I would say they are smart enough to be part of those back leveraged facilities.

**PFR: A question I'm keen to ask you is - and you alluded to - how do you plan for the impending ITC and PTC deadline?**

For now, the ITC stepdown matters to us a lot more than the PTC shutdown because the credit delivery is different. In an ITC deal, the credits are upfront, so let's say we are doing X number of deals and getting X hundred million dollars of tax credit, then going from 30% to 10% is a big jolt, whereas on the PTC side a similar number of credits are delivered over a 10-year period, which works to the tax bottom line on an incremental basis.

If the wind PTC were to go away, the incremental impact would be somewhat muted. That's the difference between the two credits. So for the ITC we have ramped up our execution capability. Since I've joined here, we have executed 15 deals, so we have gotten better and better in terms of execution risk assessment, origination and all that, so we now have a smooth functioning machine that we have been ramping up for this day and for this year.

What happens in 2017? The ITC goes down from 30% to 10%. That means if you have the same amount of tax capacity, you have to do roughly three times more deals, right? What we do see is that the supply and demand will be a lot more balanced compared to what it is now. That means some sponsors will have better appetite to self absorb some of the credits, and that means they will not need tax equity. Also, certain tax equity investors who entered the market with the allure of the 30% tax credit might find it less lucrative to monetize tax credits at a 10% rate, so they might go away.

Finally, as I discussed before, the ITC step down would necessitate newer structures, and certain tax equity investors may not be comfortable with the risk reward balance. But overall, what will happen is there will be a lot more balance in terms of the supply and demand and by virtue of that there will be more rationalization on some of the terms, both economic and legal. So far as State Street is concerned, we will continue deploying tax equity despite the ITC step down.

**PFR: Can you elaborate on what you might be trying?**

We have been spending a lot of time on that. I'm still hoping for the extension of the credit, which

means life will be the same, so therefore I don't want to get the genie out of the bottle and give the impression that we are open to some of the other structures that today we are saying 'no' to.

**PFR: We have talked a lot about wind and solar. Are there any other generation assets that you look at that qualify for the PTC or ITC? I'm thinking of storage, for example, which people are saying can become more pertinent to the financing community, and also other types of renewable generation assets such as geothermal or others.**

We have done biomass projects in the past but what we are finding is that solar PV and wind are a lot easier to execute, a lot easier to understand, with fewer variables, plus there has been enough to go around. So why would one kill oneself to do something else when you can get ITC or PTC, which another generation technology will give? With these tools, you cover a pretty large swath of projects, so we really have not been pursuing biomass or geothermal generation projects.

Energy storage is different and more interesting. We have been watching that market fairly closely, but we haven't been close to doing any deals yet. It's also a function of how much credit is available, and there are scalability issues and technology maturation that we need to see, but if the market changes in solar from 30% to 10%, that might be the area we might be looking at more proactively.

**PFR: Finally, what's your outlook for next year?**

For 2016, we are chasing a lot of deals. As I've said, we have had a lot less done than we had anticipated, partly for the same reasons we talked about: the PPA issues, the sponsors changing course. But we are very active and we would like to get as many deals as possible locked up by the end of this year, through letters of intent or term sheets. Then we can solely focus on execution next year. We are primarily looking at solar ITC deals as of now. Wind PTC will be different next year. We will be doing wind PTC deals too, but we would like to defer it until next year, until we are clear on our ITC deals, clear about our tax appetite and filling our tax capacity, and then we'll look into the wind projects. ■



## ● PEOPLE &amp; FIRMS

## Domenech Out at SunEd Yieldcos

**Carlos Domenech** has left his position as ceo of **TerraForm Power** and **TerraForm Global** at the request of the yield companies' boards. His last day was Nov. 20, a **SunEdison** spokesperson tells *PFR*.

**Brian Wuebbels**, SunEdison's cfo, has replaced Domenech as president and ceo of SunEdison's two yieldcos. He remains cfo of the parent company. "We are very confident in Brian's ability to manage the capital needs, strategy and alignment of the companies," says the spokesperson, adding that the new management structure is typical for many master limited partnerships and yieldcos.

**Emmanuel Hernandez** has been promoted from chairman of SunEdison to executive chairman.

The changes are aimed at shifting the focus of the companies away from third party acquisitions, and placing greater emphasis on the yieldcos acquiring projects from their sponsor, according to statements issued by TerraForm Power and TerraForm Global.

**SunEdison's** share price has been sliding downward from \$31.66 on July 20 when the company announced its acquisition of Utah-based residential rooftop solar provider **Vivint Solar** (*PFR*, 7/20). The stock rallied to \$3.30 following the announcement of Domenech's departure, but later closed at \$2.99 a share on Nov. 23.

"SunEdison seems to be priced for potential bankruptcy, and complexities abound," wrote **Paul Coster**, analyst at **JP Morgan**, on Nov. 18, adding that he did not see an im-

mediate liquidity issue. "We believe the firm can avoid bankruptcy," he added in a later note on Nov. 20.

Coster highlights negotiations with **Vivint Solar** and **Renova Energia**, two recently announced acquisitions by SunEdison and TerraForm Power, as key risks. The volatility in the company's share price should abate once the discussions are concluded and all outstanding merger and acquisition activity is closed, he adds. For its share price to rebound, SunEdison will have to successfully restructure the Vivint deal, he says.

The company has announced that it will seek to rewrite or scrap a number of planned acquisitions (*PFR*, 11/13). Besides Vivint, the company is also acquiring 830 MW of operating wind, solar and hydro assets in Brazil from Renova and a 930 MW wind portfolio from Chicago-based developer **Invenergy** (*PFR*, 7/7), (*PFR*, 7/8).

**Moody's Investors Service** lowered TerraForm Power's corporate credit rating from Ba3 to B2 and TerraForm Global's rating from B1 to B2 on Nov. 23, both with a negative outlook. TerraForm Power and TerraForm Global's unsecured debt ratings were both lowered to B3, from B1 and B2 respectively.

"The rating downgrades reflect the strained

liquidity and financial position at parent SunEdison as well as additional capital raising requirements on TerraForm Power beyond what was originally expected to fund the pending Invenergy and Vivint acquisitions," reads the Moody's report.

"We recently laid out our liquidity at the end of the quarter and believe we are well positioned to execute on our initiatives," says the

SunEdison spokesperson in response to a request for comment on market speculation about a potential bankruptcy.

In a further reshuffling of management, **Rebecca Cran-na** has been appointed cfo of TerraForm Global, replacing **Alejandro Hernandez**, who was promoted to the post in September (*PFR*, 10/13). Cran-na was most recently senior v.p. and cfo of global asset management for SunEdison. She joined the company in 2014 from **Silver Ridge Power**, where she was cfo for four years.



Carlos Domenech

Three new independent directors have been added to the boards of TerraForm Power and TerraForm Global. Four board members resigned.

Domenech could not be reached for comment. The spokesperson for SunEdison did not comment on the reasons for his departure. ■

## ● STRATEGIES

## Google Enrolls in Duke Renewables Scheme

**Duke Energy Carolinas** will buy the output from a 61 MW solar project to be constructed in Rutherford County, N.C., after **Google** enrolled in the utility's Green Source Rider program.

The deal will allow Google to meet a portion of the demand of its expanded data center in Lenoir, N.C. with renewable energy, according to a statement.

Duke customers who participate in the scheme continue to purchase energy and capacity from the utility under the applicable rate schedule, but will also be billed for the cost of renewable energy and renewable energy certificates, according to a filing with the **North Carolina Utilities Commission** dated Nov. 15, 2013.

The scheme is only available to non-residential customers that have added at least one megawatt of load to Duke Energy Carolina's system since June 30, 2012.

"Google was a driver behind Duke Energy seeking approval for the Green Source Rider," said **Rob Caldwell**, senior v.p. for distributed energy resources at Duke, in the statement. "Having Google as the first company to publicly announce its participation is extremely satisfying. We

believe this will lead to similar announcements in the future."

The project, which is being developed by Santa Monica-based **Cypress Creek Renewables**, has but is expected to go online before the end of 2016. How the developer plans to finance the construction of the project could not immediately be learned.

A spokesperson for Cypress Creek Renewables did not immediately respond to inquiries. ■