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Power Finance & Risk

Exclusive Insight on Power M&A and Project Financing

By the publisher of GlobalCapital

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Deutsche Asset & Wealth Management is planning to launch a fund with a focus on North American renewables early next year. Page 2

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Rockland Capital has hired **BNP Paribas** to arrange a refinancing of the 125 MW gas-fired Michigan Power project in Ludington, Mich. Page 6

Platts' 17th Annual Financing U.S. Power
Competition for debt for projects in PJM is hotting up, say panelists at **Platts**' conference in New York. Page 5

Panda Seals Close to $1B For Hummel

Olivia Feld

Panda Power Funds has secured close to $1 billion in financing for the 1 GW Hummel combined-cycle gas-fired project in Snyder County, Pa.

The deal represents the first time the Dallas-based sponsor Panda has employed a hybrid structure for its debt financing, combining both an institutional term loan B and a bank market term loan A.

Goldman Sachs, **ICBC** and **Investec** arranged the 7-year term loan B, which closed on Oct. 27. The $460 mil- PAGE 6 »

An artist's impression of the 1 GW project. Credit: Panda Power Funds

Macquarie Infrastructure Opposes Talen Sell-off Plan

Olivia Feld, Richard Metcalf

Macquarie Infrastructure Corp. is challenging **Talen Energy**'s latest plan to meet the conditions imposed on its formation last year by selling a portfolio of assets in PJM.

MIC is seeking to acquire the 158 MW Bayonne facility in New Jersey, one of the facilities that Talen would have had to sell under two plans already approved by the U.S. **Federal Energy Regulatory Commission**. Bayonne is not listed in the third plan, which is pending approval.

Talen has already agreed to sell all of the assets on the third list to various buyers, and is considering bids for the remaining assets listed in its PAGE 10 »

Q&A: Jean-Pierre Boudrias, Goldman Sachs

As v.p. and head of project finance at **Goldman Sachs**, **Jean-Pierre Boudrias** has worked with **Panda Power Funds** on a succession of deals, most recently the term loan B backing the Hummel project. Goldman was left lead on the deal, which was arranged in tandem with a term loan A, representing a new structure for the sponsor.

At Goldman, Boudrias has led financings for projects in North America in a variety of formats, including project bonds, term loan Bs, high yield bonds, mezzanine debt and equity, for sponsors such as **Cheniere Energy**, **SunEdison** and **TerraForm Global**.

Boudrias joined the New York-based investment bank in 2013, after nine years at **Credit Suisse**, where he advised and arranged financing for energy clients. Before that, Boudrias worked in the leveraged finance group at **CIBC World Markets**.

Boudrias sat down with *PFR* managing editor **Olivia Feld** in New York to discuss Goldman's appetite for deals, the impact of recent market PAGE 8 »

● **POWER UP:** CHECK OUT A SELECTION OF THE WEEK'S POWER AND UTILITY NEWS ON TWITTER PAGE 5

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AT PRESS TIME

Credit: Fotolia

Deutsche Plans North American Clean Tech Fund

Deutsche Asset & Wealth Management is preparing to launch its first clean technology fund focused on the U.S. and Canada early next year, say market sources.

The fund will seek to acquire majority stakes in development stage renewable generation assets.

Deutsche has entered into initial talks with developers and offtakers, say the sources, although projects being financed now will be too advanced in their development by the time the fund begins to build its portfolio.

It is not the first time that **Deutsche Bank**'s private equity affiliate has launched a clean tech fund.

In January 2010, the firm partnered with **Masdar Capital** to launch a global fund with a focus on power production and transmission, energy storage, water and waste management and energy and material efficiency projects across Asia, Europe and North America.

Masdar Capital is the private equity and venture capital arm of the Abu Dhabi government's development company, **Mubadala**.

The DB Masdar Clean Tech Fund reached $265 million after its first close. It subsequently grew to $290 million. Investors in the fund include Siemens, the **Japan Bank for International Cooperation**, **Inpex Corp.**, **Nippon Oil Corp.**, the **Development Bank of Japan** and **General Electric**.

DB Masdar Clean Tech Fund's investment period ended in December last year, and its managers are pursuing exit strategies. The fund did not invest in generation assets in North America, but did acquire waste management and recycling projects in the U.S.

Deutsche will be the sole manager of the forthcoming North American fund.

Officials at Deutsche Asset & Wealth Management in New York declined to comment on the proposed fund. ■

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

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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
Arclight	Michigan Power (125 MW Gas)	Ludlington, Mich.		Rockland Capital has agreed to acqcuire the project with a group of minority investors (PFR, 10/26).
CarVal Investors, Merrill Lynch Credit Products, Värde Partners, other financial investors	Granite Ridge (745 NW Gas)	Londonderry, N.H.		Calpine has agreed to acquire the project for $500M (PFR 10/19)
Entergy Corp.	Rhode Island State Energy Center (583 MW Gas)	Johnston, R.I.		The Carlyle Group has agreed to acquire the facility for $490M (PFR 10/19)
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 (see story, page 11).
Green Gas Americas	Pioneer (8 MW Landfill Gas)	Birdsboro, Pa.	Shearman & Sterling (legal)	Fortistar has agreed to acquire the projects after closing a $150M financing for its LFG to energy portfolio (PFR, 10/12).
	Port Charlotte (3 MW Landfill Gas)	Punta Gorda, Fla.		
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)
Korea Western Power Americas	Townsite (180 MW Solar)	Clark County, Nev.		Skylar Resources has acquired the project to service a 50 MW 25-year PPA with Glendale (CA) Water & Power (PFR, 10/12).
LS Power	Portfolio (4,300 MW Gas)	U.S.	Citi, Morgan Stanley	LS Power has taken second round bids (PFR, 9/28).
MACH Gen creditor group	Athens (1.08 GW Gas)	Greene County, N.Y.		Talen Energy aims to raise $400M with a term loan B towards the $1.175B purchase price it has agreed to pay for the portfolio (PFR 10/19)
	Millenium (360 MW Gas)	Charlton, Mass.		
	Harquahala (1.092 GW Gas)	Maricopa County, Ariz.		
Pacific Northwest Solar	Moores Hallow (10 MW Solar)	Malheur County, Ore.		Blue Earth has acquired the project, which is one of a portfolio of six projects owned by Pacific Northwest Solar that have obtained energy sales agreements from Idaho Power (see story, page 11).
Petrobras	Pipeline Network (4038-mile)	Brazil		First Reserve is mulling a bid for an interest in the assets (PFR, 8/17).
Piedmont Natural Gas	Cardinal (Gas pipeline)	North Carolina	Barclays (buyer), Goldman Sachs (seller)	Duke Energy has acquired Piedmont Natural Gas for $4.9 billion (see story, page 12).
	Constitution (Gas pipeline, 24%)	Pennsylvania, New York		
	Atlantic Coast (Gas pipeline, 10%)	W. Virginia, Virginia, N. Carolina		
Renovalia	Portfolio (418 MW Wind)	U.S., Canada, Mexico		Cerberus has acquired Renovalia for $1 billion (PFR, 10/26).
	Portfolio (105 MW Solar)	Chile		
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 (see story, page 12).
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.		Talen has initiated a sales process for the facility (PFR 10/19)
	C.P. Crane (399 MW Coal)	Middle River, Md.		
Talen Energy	Sapphire Portfolio (655 MW Gas, Oil)	New Jersey, Pennsylvania		Talen is taking bids for the assets and may sell any, all or none of them (PFR 10/19)
Tenaska Capital Management	Portfolio (4,900 MW Various)	U.S.	Barclays	Arclight has emerged as the buyer (PFR 10/19)
Sigma Engineering	Alterra (approx 50 MW)	British Columbia, Canada		Alterra is acquiring the four early stage development projects (PFR, 10/26).
Upstate New York Power Producers	Somerset (668 MW Coal)	Somerset, N.Y.		Riesling Power (Blackstone) is acquiring the projects in a transaction expected to close in December (PFR, 10/5).
	Cayuga (312 MW Coal)	Lansing, N.Y.		

New or updated listing

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

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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
Apex Clean Energy	Grant (151 MW Wind)	Grant County, Okla.	BayernLB, KeyBank, Siemens Financial Services	Construction	$216M	Approx 1-yr	Southern Power has agreed to acquire the project on completion (PFR, 9/14).
Cemig	Unnamed Project (Capacity Unknown)	Minas Gerais, Brazil	TBA	Debt	TBA	TBA	The sponsor intends to seek debt for the project, which is pegged at a cost of $1.14B (PFR, 8/17).
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).
	Fairview (980 MW Gas)	Cambria County, Pa.	TBA	TBA	Debt, Equity	TBA	The sponsor will be in the market for debt when the deal launches in Q3'16 (PFR, 6/15).
Conergy	Portfolio (27 MW Solar)	North Carolina	Solar Construction Lending (MMA Energy Capital, Fundamental Advisors)	Construction, Term	$55M	TBA	A portion of the debt will convert into a term loan (PFR, 10/12).
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).
Energy Transfer Partners	Comanche Trail (195-mile pipeline)						
Innergex Renewable Energy	Mesgi'g Ugju's'n (150 MW, Wind)	Avignon, Québec	National Bank Financial Markets, SunLife Assurance Co. of Canada	Construction, Term Loan	C$103M	C+9.5-yr	The C$49.2M tranche will be repaid with the proceeds of a reimbursement by Hydro-Québec for the electrical substation. The deal also included two letter of credit facilities totalling $38.4M (PFR, 10/5).
					C$159.5M	C+19.5-yr	
					C$49.2M	Construction	
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).
Invenergy	Portfolio (2 GW Gas)	U.S., Canada	Morgan Stanley, ICBC	Sen. Secured Term Loan	$340M	7-yr	Chicago-based sponsor has closed financing for the porfolio in a deal lead by Morgan Stanley (PFR, 10/26).
				Sen. Secured RCF	$70M	5-yr	
				Second Lien Term Loan C	$200M	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).
Moxie Energy	Freedom (900 MW Gas)	Luzerne County, Pa.	BNP Paribas, Citigroup, GE EFS, MUFG Union Bank	Debt	$600M	TBA	The deal, which is likely to be oversubscribed, is priced at 325 basis points over Libor (PFR, 9/21).
NextEra Energy Resources	Breckinridge (98 MW Wind)	Garfield County, Okla.	JPM Capital Corp, Wells Fargo	Tax Equity	TBA	TBA	JP Morgan has taken 75% of the Class B shares and Wells Fargo 25% (PFR, 9/14).
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).
Panda Power Funds	Hummel (1 GW CCGT)	Snyder County,Pa.	Goldman Sachs, ICBC and Investec	Term Loan B	$460M	7-yr	Loan was priced at 600 basis points over Libor with an original issue discount of 96 and a 1% floor (see story, page 1).
			ICBC and Investec	Term Loan A	$250M	6.5-yr	Deal closed with term loan priced at 375 bps over Libor (see story, page 1).
Recurrent Energy (Canadian Solar)	Mustang (100 MW Solar)	Kings County, Calif.	Santander	Construction, Term, Tax Equity Bridge	$165M	TBA	Santander plans to syndicate the loan in the coming weeks (PFR, 9/14).
			U.S. Bancorp	Tax Equity	101M	TBA	
Recurrent Energy (Canadian Solar)	Tranquillity (200 MW Solar)	Fresno County, Calif.	NordLB, Rabobank, Santander, KeyBanc, CIT, CIBC	Construction, Letters of Credit, Term	$337M	TBA	The deal has closed (PFR, 9/14).
Rockland Capital	Michigan Power (125 MW CCGT)	Ludington, Mich.	BNP Paribas	Term Loan	TBA	TBA	BNP Paribas will launch the financing in a few weeks (see story, page 6)
Ares EIF	St Joseph Energy Center (700 MW CCGT)	New Carlisle, Ind.	BNP Paribas	Term	$400M	TBA	The deal has launched and price talk is 325bp over Libor (PFR, 10/5).
sPower	Eden Solar (48 MW Solar)	Richmond County, N.C.	U.S. Bancorp	Tax Equity	$52.6 M		U.S. Bancorp has taken federal tax equity in the project (PFR, 10/26).
SunEdison	Comanche (120 MW Solar)	Pueblo, Colorado	First Reserve Warehouse	Warehouse facility	$253 million	TBA	SunEdison drew on its $1.5 billion First Reserve Warehouse facility for the construction financing (PFR, 8/30).
			Wells Fargo	Tax Equity	TBA	TBA	

New or updated listing

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CONFERENCE COVERAGE

Platts: Competition for Financing Hots Up

An influx of deals in PJM, ongoing market dislocation and the upcoming 2016 presidential election were all up for discussion at *Platts 17th Annual Financing U.S. Power conference* at the New York Marriot Marquis in Times Square.

Competition for debt among the large number of gas-fired projects under development in **PJM Interconnection** was discussed by panelists including **Robert Simmons**, partner at **Panda Power Funds**, who recently closed a financing deal for the Hummel project (see front page). "We don't have a big balance sheet that we can lean on," said Simmons. "We rely on time-after-time relationships." The Hummel debt and equity financing was "one of the hardest deals I've ever had to do," he added.

Financing for **Moxie Energy** and **Caithness Energy**'s 900 MW Freedom CCGT project in Pennsylvania is likely to be the next large scale gas-fired deal to close, said Simmons, adding that more deals will likely follow before investors fill up on their PJM risk profile.

The volume of gas-fired projects in PJM is leading to sponsors to look elsewhere for development-stage assets. New Jersey-based **PSEG**, which is developing the 755 MW Keys Energy Center CCGT in Prince George County, Md., has appetite to acquire more projects outside the region, said **Shahid Malik**, the company's president in energy resources and trade.

Panelists pondered the future for yield companies, given the tumultuous few months in the equity markets. A combination of pressure on master limited partnerships, the global economic outlook and a few bad investment decisions in the sector are to blame for the downturn, said **John Ketchum**, senior v.p. in finance and soon to be cfo of **NextEra Energy**. But there is reason to be optimistic. "To expect this will continue long term is unrealistic. Market volatility is driven largely by commodity prices," he added.

Panelists debated how the 2016 presidential election will affect the implementation of new U.S. **Environmental Protection Agency regulations**. "Whoever takes the White House will have a big impact on what happens with the Clean Power Plan," Malik said, referring to the 2020 start of the CPP compliance period.

"We need a policy. A mix of generation capacity," said Simmons. "Coal is dead, but it needs to be part of the mix." He added that Panda will continue to build plants and "take advantage of dysfunctions in the market place." **Sherman Knight**, chief commercial officer at **Competitive Power Ventures** went further, predicting that "in 10 to 15 years natural gas will be considered as evil as coal."

Ending dependency on tax incentives for renewable assets could be beneficial for the financiers, said **Will Marder**, director and global product manager for project finance at **Deutsche Bank**. The production tax credit and investment tax credit have "created some interesting structures. Who would ever come up with a partnership flip structure without having to!" ■

PFR #PowerTweets

For more news and coverage, follow @PowerFinRisk on Twitter, as well as @RichMetcalf and @OliviaFeld.

@WashTimes
Dept. of Energy urges kids to dress as solar panels for #Halloween washingtontimes.com/news/2015/oct/… #Energyween #costumeideas pic.twitter.com/WeJWiSBFI9

@AriPeskoe
Competitive Power Ventures, the gas-fired generator at issue in upcoming SCOTUS case, files affidavit in support of Clean Power Plan case

@davemildenberg
Citigroup analyst pans Duke/Piedmont NatGas merger as too costly by any measure - blogs.barrons.com/stockstowatcht…

@Alex_Verbeek
World's Largest #Solar Farm Built Near Sahara Desert http://ow.ly/2bvZ2z #renewables

@StateDept
.@JohnKerry: strong Paris deal would transform global energy economy & help avert worst effects of #climatechange. http://go.usa.gov/cx3Xx

@Shell
Shell's Q3 2015 CCS earnings, including identified items, were $-6.1bn, down from $5.3bn in Q3 2014 #ShellResults

@AmericanBanking
Dynegy Bonds Trading 4% Lower Analyst $DYN ift.tt/1S8q5Xy

@wef
Which countries generate the most power from #renewables? http://wef.ch/1LnYI77 #energy

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PROJECT FINANCE

Panda Closes Hummel Financing

« FROM PAGE 1

lion deal was priced at 600 basis points over Libor with an original issue discount of 96 and a 1% floor.

PRICING WIDENS

Price talk had been around 550 bps to 575 bps but widened to 600 bps at final pricing, with deal watchers blaming market conditions. "The B loan market is volatile," says a deal watcher. "There's a lot of paper and not enough money."

Difficult market conditions are having a "tremendous impact on everyone", another deal watcher tells *PFR*. The challenging conditions in the institutional debt market led **Talen Energy** to pull its term loan B (see story, page 10). Deal watchers also cited market volatility as one of the reasons **Invenergy** withdrew and reconfigured its term loan B offering in August (PFR, 8/13).

Investec and ICBC arranged the term loan A tranche of the deal backing Hummel, in tandem with the term loan B. The $250 million 6.5-year loan priced at 375 bps over Libor.

Besides the $710 million in term loans, Panda also secured mezzanine finance from **Ares Management** and preferred equity from institutional investors including **Siemens Financial Services**.

Ares provided an equity bridge loan for between $50 and $100 million, subordinated to the term loans A and B.

Several large institutional investors took preferred equity in the project, including Siemens, which invested $125 million.

The financing also included letters of credit, a revolving credit facility and working capital totaling $50 million, bringing the size of the full package into the region of $1 billion.

Panda's strong record of developing merchant and quasi-merchant projects drew a number of repeat investors, notes the second deal watcher. Panda's relationship lenders were clamoring to arrange the deal (PFR, 9/16).

On Sept. 22, **Standard and Poor's** gave the project's senior secured facilities a preliminary BB- rating and a preliminary 1 recovery rating.

Panda Power Funds launched the financing on Sept. 18, after waiting for the results of delayed **PJM Interconnection** capacity auction (PFR, 9/16). The capacity auction, which had originally been due to happen in May, finally took place in August.

Siemens Energy and **Bechtel Power** have won contracts to build the Hummel project on a turn-key basis.

Panda is co-developing the project with **Sunbury Generation** on the site of the recently retired 400 MW Sunbury coal-fired project.

The deal closed almost a year after Panda sealed a $571 million package backing the 778 MW Stonewall combined-cycle project in Loudoun County, Va. The $300 million term loan launched at 600 bps over Libor but came down to 550 bps as a result of strong investor demand (PFR, 11/17).

Representatives for Panda, Goldman Sachs, ICBC and Investec either declined to comment or did not respond to inquiries. ■

Rockland Hires BNP Paribas to Refinance Michigan Facility

Rockland Capital has hired BNP Paribas to arrange a term loan to refinance the debt associated with the Michigan Power project in Ludington, Mich., according to a person close to the deal.

Rockland recently agreed to acquire the plant from **ArcLight Capital**.

The 125 MW gas-fired combined-cycle facility's existing debt amounts to about $125 million, says the source.

BNP Paribas will launch the financing in a few weeks, and the deal is expected to close by the end of the year, concurrently with the acquisition.

Rockland will own 76% of the project once the deal is complete, with a group of passive investors owning the rest (PFR, 10/22).

Michigan Power has a power purchase agreement with **Consumers Energy Co**. for all of its output until October 2030. The plant also sells steam to a chemical plant owned by **Occidental Chemical Corp**.

A spokesperson for BNP Paribas did not respond immediately to a request for comment. ■

STRATEGIES

Canadian Solar Refinances Bridge Loan for Recurrent

Canadian Solar has closed a $100 million senior secured term loan to retire a bridge loan used to finance its acquisition of **Recurrent Energy**.

The terms of the loan include the option to extend the facility by a further $100 million.

Credit Suisse's Singapore branch arranged the term loan, which has a two-year tenor, according to a statement issued by the Guelph, Ontario-based solar manufacturer and developer.

The Swiss bank was Canadian Solar's advisor on the $265 million acquisition of Recurrent from **Sharp Corp**. and arranged the $150 million one-year senior secured bridge loan which is to be repaid with the proceeds of the new loan (PFR, 2/6).

In May, Canadian Solar obtained a three-year $210 million loan and a $40 million letter of credit from Shanghai-based **China Minsheng Bank**, which it said would be used to finance the acquisition as well as to fund the construction of utility scale solar projects (PFR, 5/18).

The acquisition of Recurrent almost doubled Canadian Solar's global solar project pipeline, bringing it to 8.5 GW. It has since grown to over 9 GW.

Canadian Solar had planned to launch a yield company to hold its operating assets, but after shares in existing yieldcots took a beating over the summer, **Michael Potter**, the company's cfo, said the company would monetize its assets through alternative plans if required (PFR, 8/20). ■

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- Increased coverage of Mexico and Latin America
- The PPA Pulse and Yieldco Sweep
- Q&As with corporate, banking, legal and investment executives who are leading the industry

Q&A: Jean-Pierre Boudrias, Goldman Sachs

« FROM PAGE 1 volatility on terms and pricing and the rush to get renewable financing sealed before the expiration of tax credits.

PFR: When you joined Goldman Sachs the bank was looking to arrange more traditional project finance debt along with institutional loans and bonds. How does that fit into the group's current strategy and appetite?

Our general approach at Goldman Sachs is really focused and centered around clients, so the goal has always been to bring something that is client centered. I want the definition of what we do to be that we raise capital for projects. We raise it in the bank market when it makes sense. We obviously arrange it in the institutional market. But we also arrange junior capital, so we've raised mezzanine, we've raised equity and we've sold projects. It's a little more fulsome a mandate than, say, just someone who works at a competing bank where the only thing they do is arranging project finance debt, so it's a little bit more broad and it really provides the full needs that a project may have.

PFR: How, in your time at Goldman Sachs and your wide experience working in project finance, have you seen your clients' needs change?

The 800-pound gorilla in our market in project finance are the banks. Historically, banks provided about three quarters of the debt financing for new construction projects, with the balance from other institutional sources in the project bond markets and other markets like term loan B and others.

Over time, all the big shifts, if one goes back, are about how much appetite there is in the bank market. In times like today, where there is a lot of appetite, and quite frankly not enough deals, what you see happening is banks dialing up risk a little bit, trying to branch out from their traditional areas, so they can actually put the dollars out to work. If anything, we don't have the data for the last year or so, but my suspicion is if you were to look, banks have actually increased their market share in the last two years.

Jean-Pierre Boudrias

When you put yourself in the position of running a project finance group for an investment bank, sometimes we will be involved but most times we won't. We've always had a focus on the 25% that historically has gone to institutional sources. With less of that happening, we're probably doing more non-traditional capital raises as a result than we were doing three or four years ago.

PFR: Over the last few months PFR has reported on a significant number of large-scale projects being developed in PJM. Some of the bankers I've been speaking to are warning of an oversaturation of the market. Do you think all of these projects will get financed?

I think it's always important to take a step back. Whenever one develops a project, there are a number of areas that can act as a constraint on development. You need to get permits, you need to get the hedge, you need to get the equity and, lastly, you need to get the debt. Our sense is that the last part is likely not going to be a constraint.

The comment I made earlier about the banks looking for deals to do, if you had asked me three years ago, will all these banks do all these quasi-merchant deals — or partially contracted as someone recently termed them— in PJM, the answer would have been: Not really. It would be a little outside of their mandate. Now, you have 15 institutions that have been part of one or two of these financings to date. Our sense is, ultimately, the debt is not going to be the constraint. It's going to be something else. It's going to be either the availability of equity dollars or it's going to be the availability of hedges.

> **"Obviously, there's been a number of projects. Every single time a new one comes, it doesn't seem like they have that difficult a time getting the debt arranged."**

PFR: Do you think there is enough appetite in the banks to raise debt financing for these projects?

I think that's right. Obviously, there's been a number of projects. Every single time a new one comes, it doesn't seem like they have that difficult a time getting the debt arranged.

PFR: Do you think there is more competition now in terms of securing hedge agreements and raising the equity needed? Why do you think that's where the issues may lie for these projects?

We've raised equity for some projects. The market, while there's a number of participants — a lot more than, say, two years ago — it's not a very deep market. If you look at who has been providing the equity for all these projects, a number of the usual players that would have provided capital have already been represented in these projects. How much appetite they have to put more dollars at risk is questionable in certain cases.

I think that there is going to be a little bit more of a constraint on the hedging side. There's only a few market participants that will provide these long-term hedges. Obviously all these hedges, at least for financial institutions, consume a lot of credit. How much concentration exposure are people looking for? And some of the non-traditional, non-financial institutions, there is only so much risk they are willing to take for a market that has not been generally known to be super liquid.

PFR: Goldman Sachs is known as one of the go-to investment banks for term loan Bs, and your latest for Panda Power Funds is said to be quite innovative. How do you think these loan structures have evolved?

What's interesting is, if you look back at the first construction transaction PAGE 9 »

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« FROM PAGE 8 done in the institutional market — the Astoria plant in Queens in 2004 — and others since, these are just bank deals that have been packaged for institutional investors. The structures are roughly the same, the terms are very similar, at least to the actual infrastructure of the transaction. If you look over time, the terms have not varied all that much. They have been very similar, there have been tweaks around the edges, certain things that have moved to be more investor friendly and less investor friendly over time, but the overall structure has remained relatively similar.

What we did with Hummel was introduce a term loan A/term loan B structure. It's obviously not the first time that's been tried, but I think the difference was, early on we identified to our client that the ability to tap into the appetite in the bank market could be interesting and could reduce the overall cost of going in and pursuing the financing. The one we did previously for them, Panda Stonewall, was entirely done in the institutional market, and this time we felt it was worth trying. It probably ended up saving quite a bit to our client in terms of overall financing costs.

PFR: Last week, Talen Energy pulled its term loan B citing difficult market conditions. Invenergy also modified its recent term loan B offering. What do you think is behind the difficult conditions, and how are they affecting deal flow?

I won't comment on these transactions directly; we're not involved in them, so I don't know. Essentially what I would say is that we've seen volatility in markets since August, and I think difficult market conditions are just a continuation of what we've seen happening in the world since August. Ultimately, these are capital markets. In capital markets things go up, capital markets things go down, and investor appetite will ebb and flow with larger macro trends, and not necessarily specific to a transaction or a sector. If appetite for risk goes down globally, it's going to happen in the institutional market as well.

PFR: But as a bank arranging these term loans, are you concerned about what impact the volatility will have on your deal flow?

Fundamentally, when you think about how far ahead we think about some of these projects— we were talking about Hummel last spring — markets were in a different place than they are now. Ultimately, what you try to do as an arranger, is try to position your transaction so that it's ready to go and access favorable markets. You don't always have the choice, but that is certainly the goal.

> **"If appetite for risk goes down globally, it's going to happen in the institutional market as well."**

PFR: With that in mind, do you think you will be a little bit quieter in terms of launching new deals right now?

The answer is that it depends. Some deals are able to go, some deals have the luxury of being able to wait. Those that have the luxury to wait will wait and those that can go now will go shortly.

PFR: Goldman Sachs backed a $1 billion warehouse for SunEdison. How do you see these warehouses being further utilized?

Our colleagues in the infrastructure funds made that commitment. I think we expect to see a little more of warehouses. It obviously addresses a very specific need. A lot of the other yieldcos don't have that need, because the function of the warehouse is effectively provided by the sponsor. **NextEra Energy Resources** doesn't need one and **NRG Energy** probably doesn't need one. But for developers who are more pure developers, warehouses are useful and I think you probably are going to see a few more.

> **"Some deals are able to go, some deals have the luxury of being able to wait. Those that have the luxury to wait will wait and those that can go now will go shortly."**

PFR: You touched upon the wider growth of the renewable market. How do you see the expiry of the PTC and the ITC step down impacting renewables deal flow in the U.S?

Historically, if you look at the year when there was no PTC, installations went way down. We expect you are probably going to see that. That being said, I think developers are doing more work to prequalify certain pieces of equipment to be able to take advantage or extend the window on PTC eligible projects. I think it's going to take a little bit longer for the number of projects to dry out. But it certainly will have an impact. Every single time that the PTC has not been renewed, installations in the U.S. have gone down.

PFR: We're currently in the PTC safe harbor period. What I've been told by people in the market is that there will be an upturn in activity before there is a downturn, and that there might be a rush before the end of this year to get financing in place for projects so that they can qualify for the PTC. Is that something you expect to see?

We've heard rumblings, but sometimes people are just trying to rush projects to market when they're not really ready, so time will tell if it will really happen. That being said, a lot of that activity happens in the bank market before we ever see it. So I suspect that my colleagues that work at commercial banks will see a lot more of that than we have. We've seen bits and pieces, but it's clear that some of the people who have spoken to us are just trying to rush projects to market. We may not be able to get there, just because the projects were not necessarily ready other than them trying to rush them.

On the ITC, we still have a year before the step down. If they want to go commercial in 2016, they should be starting construction right about now. I think on the large-scale projects, there's probably not as much tailwind as we will see for the ones that can go faster — which are distributed generation and residential. We predict a pretty big year in 2016 for those projects for people that are trying to get ahead of the stepdown in ITC in 2017. ■

Check back next week for the second instalment of this Q&A.

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MERGERS & ACQUISITIONS

Macquarie Infrastructure Opposes Talen Sell-off Plan

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first two divestiture plans.

"We have not ruled out the possibility of selling all the identified assets, going beyond FERC's divestiture requirement, depending on the offers we receive," a spokesperson for Talen told *PFR* on Oct. 15, (PFR, 10/15).

BATTLE FOR BAYONNE

Talen filed the third plan on Sept. 25, citing "changed conditions" at the combined-cycle dual fuel Bayonne facility in Bayonne, N.J.

International Matex Tank Terminals, a subsidiary of MIC, owns the land Bayonne is built on and leases it to the facility under an agreement which expires on Oct. 31, 2018. In October 2014, IMTT notified Bayonne that it did not intend to renew the lease.

Bayonne and Talen's predecessor's subsequent negotiations with IMTT to attempt to extend the lease were unsuccessful, according to Talen's filing describing the third divestment package.

Bayonne has cleared PJM's forward capacity auctions for delivery years through May 31, 2018, and is slated for retirement on Nov. 1 of the same year.

"Accordingly, divesting the Bayonne facility could prove challenging," Talen's filing reads.

MIC filed a motion of protest against the third plan with FERC on Oct. 19, the last day that comments on the submission were due.

In its filing, MIC declares its willingness to acquire Bayonne, and asserts that Talen's claim that there have been material changes in circumstances since it filed its initial two divestiture options is incorrect.

"Putting aside the fact that the termination date of Bayonne's lease already had been established at the time Bayonne was first included in the mitigation proposal, Talen does not and could not claim that this termination was not foreseeable at the time that Talen and its predecessors committed to the Commission to divest Bayonne," reads MIC's motion.

FAST FACT

1.47 GW

Talen has sold assests totaling 1.47 GW to comply with a FERC order issued in December.

MIC has offered to acquire the facility from Talen at a price based on the net present value of revenues that Talen's predecessors projected Bayonne would generate until the lease expires in 2018, according to the filing.

If it acquired Bayonne, MIC says it would keep the plant in operation beyond 2018 "at the same time PJM is facing impending threats of capacity shortages."

MIC would also consider investing more capital in Bayonne to increase both its efficiency and its capacity, if it were allowed to buy the facility.

In February, MIC agreed to buy another gas-fired facility in Bayonne, N.J., from **ArcLight Capital Partners**. MIC is paying $720 million for the 512 MW Bayonne Energy Center, including the assumption of $510 million in debt. The facility is located near Talen's Bayonne project on land also owned by IMTT (PFR, 2/4).

Allentown, Pa.,-based Talen is the result of the merger of **PPL Corp.**'s unregulated generation business with a portfolio of generation assets owned by private equity firm **Riverstone**. The newly formed entity was ordered by FERC in December 2014 to sell a number of assets in **PJM Interconnection** as a condition of its formation.

Talen submitted three possible divestiture plans to FERC, the first and second of which have been approved.

The third plan, which has not yet been authorized, proposes the sale of a gas-fired facility and two hydro plants in Pennsylvania, and a coal-fired plant in Maryland, all four of which Talen has already found buyers for.

TransCanada has agreed to buy the 778 MW gas-fired Ironwood facility in Lebanon, Pa. while **Brookfield Renewable Energy Partners**, jointly with institutional partners, is buying the 252 MW Holtwood project on the Susquehanna River in Holdwood, Pa. and the 40 MW Lake Wallenpaupack facility in Hawley, Pa. (PFR, 10/8). An affiliate of hedge fund **Avenue Capital Group** has agreed to acquire the 399 MW C.P. Crane coal-fired project in Baltimore (PFR, 10/23).

MIC and Talen remain in active negotiations for the Bayonne project, says a deal watcher. A spokesperson for MIC declined to comment. ■

Talen Pulls Term Loan B

Talen Energy has withdrawn its $400 million term loan B, blaming market conditions. The company has announced over $1.6 billion in pending asset sales in the last few weeks.

"While we had the ability to syndicate a full $400 million issue, the required rate and terms no longer make it an attractive piece of capital," said the company in an e-mailed statement. "We have a strong liquidity position and ample liquidity to support our operations. In addition, as previously announced, we have committed debt financing sufficient to fund the consideration for the acquisition."

Talen launched the senior secured term loan B earlier this month to finance its acquisition of **MACH Gen** (PFR, 10/15). **Citigroup**, the financial advisor on the acquisition, led the deal. **MUFG Union Bank**, **Credit Suisse**, **Deutsche Bank**, **Barclays** and **RBC Capital Markets** were joint arrangers. **UBS**, **Mizuho**, **Key Bank** and **Crédit Agricole** were co-managers.

The Allentown, Pa.-based company capped off a string of asset sales in recent weeks with the announcement that it would sell the 399 MW C.P. Crane coal-fired project in Baltimore to an affiliate of the hedge fund **Avenue Capital Group**. Talen sold the project for approximately $100 million, according to figures obtained by *PFR*.

A spokesperson for Citigroup declined to comment. ■

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Rating Agencies React to Duke's Piedmont Acquisition

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PIPELINE DEVELOPMENT

Piedmont owns the Cardinal natural-gas pipeline in North Carolina and is developing two further interstate pipelines through joint ventures, one with Duke.

The natural gas company also holds a 24% stake in the Constitution pipeline, which will carry 650 Mdt/day 120 miles between Pennsylvania and New York. The project is expected to cost $900 million to construct and is slated to be in service in the fourth quarter of 2016.

Duke and Piedmont are jointly developing the Atlantic Coast natural-gas pipeline, which is under consideration by the U.S. **Federal Energy Regulatory Commission**. Duke has a 40% stake in the pipeline, while Piedmont holds 10%.

The pipeline, will transport 1.5 Bcf/day 550 miles between West Virginia, Virginia and North Carolina. The project is slated to cost between $4.5 and $5 billion to build and is expected to be in service in November 2018. How the companies plan to finance construction could not be established.

Dominion was selected in September 2014 to build and operate the Atlantic Coast pipeline, after Duke and Piedmont issued a request for proposals. Duke's increasing reliance on natural gas for generation facilities, coupled with Piedmont's growing customer demand, prompted the request (PFR, 4/7/2014).

Spokespeople for Duke Energy and Piedmont, both in Charlotte, N.C., declined to comment on the terms of the transaction or plans to finance the Atlantic Coast and Constitution pipelines. ■

Blue Earth Acquires Oregon Solar Project

Nevada-based developer Blue Earth has acquired a 10 MW solar project near Ontario in Malheur County, Ore., from **Pacific Northwest Solar**, and plans to acquire five more from the same sponsor.

The project, named Moores Hallow Solar, will sell power to **Idaho Power Co**. through an energy sales agreement.

The project is scheduled to enter construction in the first quarter of next year and is due to be online by Dec. 31, 2016.

"We look forward to continuing to work on finalizing the acquisition of the remaining 44 MWp across five projects from Pacific Northwest Solar," said Blue Earth's president, **Ruben Fontes**, in a statement.

Moores Hallow is one of a portfolio of six solar projects developed by Pacific Northwest in Malheur County, Ore., which have obtained standard energy sales agreements from Idaho Power under the Public Utility Regulatory Policies Act, according to a filing with the **Public Utility Commission of Oregon** dated Oct. 2.

The other projects under development are the 5 MW Arcadia Solar project near Nyssa, the 10 MW Evergreen Solar project near Ontario, the 4 MW Jamieson Solar project near Vale, the 5 MW John Day Solar project near Vale, and the 10 MW Little Valley Solar project. All six facilities are slated to be online by the end of the year.

The purchase price could not be learned. Officials at Portland, Ore.-based Pacific Northwest and Henderson, Nev.-based Blue Earth did not immediately respond to a request for comment. ■

Solar Frontier Sells First Solar Project from Gestamp Portfolio

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in 2012, adding the 20 MW Apex Solar project and the 30 MW Spectrum project, both in Clark County, Nev., and the 2.5 MW Granville project in Granville County, N.C. to its portfolio (PFR, 10/1/12) (PFR, 10/18/12).

The joint venture's fifth and largest acquisition to date is the 139 MW Campo Verde project in Imperial County, Calif., which it bought from First Solar in 2013 (PFR, 4/24).

In 2014, the partners purchased the 20 MW Adobe project in Kern County, Calif. from SunEdison and the 55 MW Macho Springs project in Luna County, N.M. from First Solar (PFR, 11/11/13) (PFR, 3/13/14).

A spokesperson for Southern Co. declined to comment on whether the company's joint venture with Turner was interested in acquiring other projects from the Gestamp portfolio. Officials at Solar Frontier were not available for comment. ■

Scatec Takes Stake in Second Honduras Solar Project

Norwegian independent solar power producer **Scatec** and the Norwegian state-owned investment fund for developing countries, **Norfund**, have acquired a 53 MW solar project in Honduras.

The Los Prados project, located in the Choluteca region, is projected to cost $100 million to construct, $25 million of which will take the form of equity from Scatec and Norfund. Scatec will own 70% of the project and will build and operate the facility. Norfund will hold the remaining 30%.

The **Central American Bank of Economic Integration** and **Export Credit Norway** will provide $75 million of non-recourse project debt, guaranteed by the **Norwegian Export Credit Guarantee Institute**, to finance the rest of the project costs.

Fotovoltaica Los Prados, which developed the project, secured a 20-year power purchase agreement with state-owned utility **Empresa Nacional de Energía Eléctrica** in April.

Scatec also owns a 40% stake in the operational 60 MW Agua Fría project in Nacaome, in the Valle department of Honduras. Agua Fria also has a 20-year PPA with ENEE. The other owners are Norfund and local developer **Pemsa**.

Los Prados is expected to produce about 110,000 MWh annually, generating revenues of about $15 million, according to a statement issued by Scatec, which would make the price of electricity just under $0.14/kWh.

That price includes a subsidy tariff funded by the state, says **Mikkel Tørud**, Scatec's cfo in Oslo, Norway. The government will also guarantee the PPA.

The financing is expected to close in early 2016, with grid connection slated for the third quarter of 2016. ■

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MERGERS & ACQUISITIONS

Rating Agencies React to Duke's Piedmont Acquisition

Rating agencies have reacted unfavorably to **Duke Energy**'s $4.9 billion acquisition of **Piedmont Natural Gas**, with some of the two companies' ratings facing possible downgrades. Duke will assume approximately $1.8 billion of Piedmont's debt under the terms of the deal.

On Oct. 27, **Standard & Poor's** revised its outlook for Duke and its subsidiaries from stable to negative following the news of the acquisition. **Moody's Investors Service** placed its long-term ratings for the Charlotte, N.C.-based utility and its subsidiaries on review for downgrade. S&P and Moody's rate Duke A- and A3 respectively.

S&P also placed Piedmont's corporate credit rating and the ratings of its senior unsecured and short-term debt on CreditWatch negative. S&P gives Piedmont an A rating. The agency said the move was reflective of the potential for lower ratings following for the close of the acquisition. **Moody's Investors Service** affirmed the gas company's stable A2 rating.

ACQUISITION FINANCE

Duke will finance the transaction with a combination of debt, between $500 million and $750 million of newly issued equity and other cash sources. In the meantime, **Barclays** is underwriting a bridge facility for Duke.

Duke plans to raise the equity "fairly quickly," company executives said on conference call with analysts on Oct. 26. The deal is slated to close by the end of 2016.

Piedmont shareholders will receive $60 in cash for each share of common stock once the deal closes, representing a 40% premium to Piedmont's closing stock price on Oct. 23.

Barclays served as financial advisor to Duke, and **Goldman Sachs** advised Piedmont. PAGE 11 »

Solar Frontier Sells First Solar Project from Gestamp Portfolio

Southern Co. subsidiary **Southern Power** and **Turner Renewable Energy** have acquired the 15 MW Morelos del Sol solar project in Kern County, Calif., from **Solar Frontier Americas**.

The project is part of a 280 MW project pipeline that Solar Frontier acquired from Spanish developer **Gestamp Solar** in April this year (PFR, 3/12).

The facility, which is under construction, has a 20-year power purchase agreement with **Pacific Gas & Electric Co**.

The purchase price could not be learned.

Solar Frontier Americas is the U.S. affiliate of **Solar Frontier**, which is wholly owned by Tokyo-listed **Showa Shell Sekiyu**. **Royal Dutch Shell** and **Saudi Aramco** own 35% and 15% respectively of Showa Shell Sekiyu.

The company's acquisition of Gestamp's solar development pipeline of 10 projects marked its entry into the North American renewables market.

Solar Frontier will not raise project finance debt for the portfolio, but will seek tax equity investors, a spokesperson told *PFR* in April. Whether Morelos de Sol has tax equity backing could not immediately be established.

Morelos del Sol is the eighth joint solar acquisition by Southern Power and Turner Renewable Energy.

The duo have been acquiring solar assets together since 2010, when they jointly purchased the 30 MW Cimarron project in Colfax County, N.M., from Tempe, Arizona-based **First Solar** (PFR, 1/27).

The partnership made a series of acquisitions from **SunEdison** PAGE 11 »

ALTERNATING CURRENT

Creatures of the Night Win Respite

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Bats are observed more frequently at wind turbines on moonlit nights, looping, diving, hovering and chasing each other. They also visit wind farms more often in low wind speed conditions, according to the latest scientific research.

This is one of the reasons behind a new voluntary operating protocol announced by the **American Wind Energy Association**. Wind operators that implement the protocol will slow the rotation of their turbines in low wind speed conditions during the fall bat migration season.

Duke Energy Renewables is one of the companies that has begun implementing the policy. It has already applied the protocol fully at 11 of its wind farms. Work is in progress at its remaining five sites, and the procedures will be programmed into future turbines.

photo: Fotolia

"We're on the leading edge of addressing this," says **Tim Hayes**, a biologist and environmental director for Duke, who was part of the AWEA committee which developed the rules. "Whatever the environmental issue, Duke prides itself in meeting it head on."

AWEA expects the protocol to reduce the impact of wind turbines on bats by up to 30%, at the potential cost of millions of dollars of lost electric generation.

Is it worth it? Some people may find bats ugly, irksome, or even terrifying, but Hayes says they play an important role.

"One benefit is they consume enormous amounts of insects, but they've got a bad image and most people think they're creepy," he says. "There's not another critter I can think of that provides more value to people." ■

QUOTE OF THE WEEK

"We don't have a big balance sheet that we can lean on. We rely on time-after-time relationships."

Robert Simmons, partner at **Panda Power Funds** speaking at the Platts 17th Annual Financing U.S. Power Conference in New York.

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