Power Finance & Risk

The weekly issue from Power Intelligence

www.powerintelligence.com

Q1 League Tables: Deutsche Snags Top Spot Pointing To European Revival

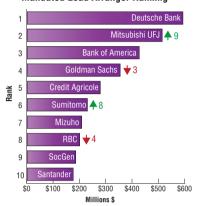
Deutsche Bank has topped league tables for the first quarter of 2014, highlighting a resurgence of European lenders in power and energy project finance in the U.S. and Canada. A total of \$5.258 billion was lent across 25 projects in the quarter, according to data from *PFR* affiliate **Dealogic**.

Deutsche Bank arranged \$592 million across six deals, including a \$320 million deal with **SunEdison**, for a 12.6% market share (PI, 1/3). It is joined in the top ten with three other European banks: fifth placed **Crédit Agricole**, ninth placed **Société Générale** and tenth placed **Banco Santander**. Those four lenders combined for a 26.1% market share.

"A lot of banks are now coming back, including European banks, which has created more liquidity in the market and spreads are compressing," **Bhaswar Chatterjee**, head of infrastructure and energy finance in the Americas at **Deutsche Bank**, told *PFR*.

(continued on page 11)

Q1 2014 North America Mandated Lead Arranger Ranking



Arrow indicates how the firm moved from Q1 2013 rankings Source: Dealogic

TIAA-CREF, Advanced Power Partner On N.Y. Plant

TIAA-CREF has invested in a \$1.4 billion combined cycle project in New York being developed by **Advanced Power NA** — the first of what is expected to be a series of partnerships.

TIAA-CREF has taken a 35% equity stake in the 1 GW Cricket

Valley CCGT project in Dover, N.Y., which is moving toward the financing process. Advanced Power CEO **Tom Spang** says that he and his team are keeping an eye on bank deals for uncontracted gas-fired projects in PJM East that are moving through the financing market. They are also tuned into term loans 'B' that have financed recent greenfield projects.

Advanced Power, based in Boston,



Lisa Ferraro (continued on page 12)

DOE Pitches Tweaked \$4B Loan Guarantee Program

The U.S. **Department of Energy** is seeking applications for up to \$4 billion of innovative renewables and energy efficiency projects in the latest iteration of the loan guarantee program. The solicitation, which is in draft form, is the focus of several public meetings hosted by the DOE in Denver, Arlington, Va., Minneapolis and Austin, Texas in the next few weeks. The last meeting is on May 6.

In a departure from previous solicitations, the DOE has outlined five types of projects that could be eligible for this call, including advanced grid integration and storage, bio-refineries that produce fuel, waste-to-energy, additions to existing renewable or energy efficient facilities and energy efficiency improvements. "It's trying to fill in some areas and touch upon a broad range of bases. Basically, they're saying that there are a lot of (continued on page 11)

Cast A Ballot

Vote in PFR's annual **Deals & Firms Of The Year Awards**, recognizing excellence in the power industry in 2013

See page 5

Stay Fresh

Check out a selection of the week's power and utility news on Twitter.



See #PowerTweets, page 11

Generation Sale ■ DATABASE

Check out the latest asset trades in *PI's* weekly calendar, compiled from our exclusive Generation Sale Database.

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THE BUZZ

he pool of cash dog-eared for the distributed solar market is deepening as the sector matures. Rooftop solar was a driver of the financing arranged by banks in the first quarter, as portfolios reach scale that whets lenders' appetites. The number of funds dedicated to distributed generation are popping up as partnerships between a variety of players across several sectors of the technology, power and financing fields. Google and SunPower have established a nationally focused fund while Hannon Armstrong Sustainable Infrastructure Capital has teamed up with Sol Systems to raise a \$100 million fund (see stories, page 5).

European banks make a strong showing in the first quarter league tables with Deutsche Bank ousting Mitsubishi UFJ Financial Group for the top lead arranger slot. A total of \$5.258 billion was lent across 25 projects in the quarter in the U.S. and Canada. For full results, see page 1.

The U.S. Department of Energy's loan guarantee program has resurfaced after a hiatus, sporting some minor changes. In this iteration, the DOE will decide how much of the credit subsidy—a required loss reserve held by the U.S. Treasury for all federal loans and guarantees—a winning applicant must fork out in this latest \$4 billion solicitation. It has also spotlighted five types of facilities that it wants to see submitted, although all innovative renewable energy and energy efficient facilities could theoretically qualify (see story, page 1).

LS Power swooped in on a 3.5 GW of gas-fired assets in the Southeast from Calpine Corp. (see story, page 6). The deal coupled with the sale of a set of ArcLight Capital Partners peakers in Georgia is setting the region up for having its most bustling year of M&A in recent memory.

TELL US WHAT YOU THINK!

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

> Feel free to contact Holly Fletcher, managing editor, at (212) 224-3293 or hfletcher@iiintelligence.com.

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Generation Sale DATABASE

I GENERATION AUCTION & SALE CALENDAR

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

Seller	Assets	Location	Advisor	Status/Comment	
AES Corp.	Stakes (DPL Energy Coal, Gas, Oil)	Various	Barclays	Indicative bids due early March; likely to overlap with Duke (PI, 2/24).	
Acciona	Portfolio (Wind, Solar)	Various	Lazard	First rounds bids submitted (PI, 3/31).	
Advanced Power Systems	Cricket Valley (1 GW CCGT)	Dutchess County, N.Y.	Whitehall & Co.	TIAA-CREF has taken a stake (see story, page 1).	
ArcLight Capital Partners	Juniper Generation (Cogen portfolio)	Various, California	McManus & Miles	Sale relaunched after several PPAs were extended (PI, 3/17).	
	Peakers (2 GW Gas)	Various, Georgia	TBA	Carved peakers out of Southeast PowerGen to sell (PI, 3/24).	
	Stake (106.5 MW Cogen)	Orange, Texas	None	Rockland is buying its stake (PI, 3/31).	
	Victoria (330 MW CCGT)	Victoria, Texas	UBS	Sale is near launch (PI, 4/7).	
Calpine	Portfolio (3.5 GW Gas)	Various		LS Power is buying the fleet in the Southeast (see story, page 6).	
Corona Power	Stake (Sunbury, 900 MW Repowering)	Shamokin Dam, Pa.	Perella Weinberg	First round offers due April 14 (PI, 3/31).	
Duke Energy	Portfolio (6.6 GW Coal, Gas, Oil)	Various	Citi, Morgan Stanley	Teasers hit the market (PI, 4/21).	
Earth by Design	45-Mile (5 MW Hydro)	Jefferson County, Ore.		Apple bought it (see story, page 7).	
EmberClear	Portfolio (660 MW CCGT developments)	Good Spring, Pa.	CCA Capital	Tyr has partnered on the development assets (PI, 3/31).	
Entegra Power Group	550 MW Stake (2.2 GW Union Station CCGT)	Arkansas	Bank of America	Gearing up to sell the unit that has a tolling agreement (PI, 3/31).	
Essar Group	Algoma (85 MW CCGT)	Algoma, Ontario	Barclays	Teasers are on the market (PI, 1/13).	
FGE Power	FGE Texas (726 MW CCGT)	Westbrook, Texas	Fieldstone	Fieldstone is advising on equity hunt in tandem to debt raise with Goldman.	
JPMorgan	Jackson (540 MW Gas)	Jackson, Mich.	JPMorgan	Consumers Energy is buying it (PI, 2/17).	
LS Power	Columbia (20 MW Solar)	Pittsburg, Calif.	Marathon Capital	Process is in the second round of due diligence (PI, 7/1).	
LS Power	Stake (417 MW Hydro)	Pennsylvania	None	Brookfield is buying 33% for \$289M (PI, 2/17).	
Maxim Power Corp.	CDECCA (62 MW Gas)	Hartford, Conn.	Credit Suisse	Rockland is seeking to terminate its deal to buy the assets (PI, 12/9).	
	Forked River (86 MW Gas)	Ocean River, N.J			
	Pawtucket (64.6 MW Gas)	Pawtucket, R.I.			
	Pittsfield (170 MW Gas)	Pittsfield, Mass.			
	Basin Creek (53 MW Gas)	Butte, Mont.			
NRG Energy	Various (Gas, Solar)	Various	None	Dropdowns to NRG Yield (PI 4/14).	
NextEra Energy Resources	Pheasant Run II (75 MW Wind)	Huron County, Mich.	None	DTE Electric is considering buying the farm via a PPA option (PI, 3/3).	
Norvento USA	Bloom (180 MW Wind)	Dodge City, Kan.	TBA	Capital Power bought the project (PI, 3/24).	
Ontario Teachers Pension Plan Board	Stake (Northern Star Generation)	Various	Citigroup	CalPERS, Harbert emerge as frontrunners (see story, page 6).	
Optim Energy	Portfolio (1.4 GW Coal, Gas)	Texas	Barclays	Mulling a sale via bankruptcy filing (PI, 3/10).	
Power Resources Cooperative	Stake (605 MW Boardman Coal)	Boardman, Ore.		Portland General is upping its stake as retirement, refueling loom (see story, page 6).	
Project Resources Corp.	Rock Aetna (21 MW Wind	Minnesota	Alyra Renewable Energy Finance	Looking for a buyer with access to turbines to qualify for PTC (PI, 1/13	
Ram Power Corp.	Geysers (26 MW Geothermal)	Sonoma County, Calif.	TBA	U.S. Geothermal has bought it (4/14).	
Recurrent Energy	Portfolio (139 MW Solar)	California		Dominion is buying the assets (PI, 4/7).	
Terra-Gen Power	Alta (947 MW Wind)	California	Citigroup, Morgan Stanley	Management presentatios are set to begin week of 3/24 (PI, 3/24).	
TransAlta	Wailuku (10 MW Hydro)	Hawaii	TBA	MidAmerican Energy Holdings is buying TransAlta's stakes for \$193M (PI, 3/3).	
	Fleet (327 MW Geothermal)	California			
	Fleet (867 MW Gas)	Various			
We Energies	Presque Isle (425 MW Coal)	Marquette, Wis.	None	No buyers submitted proposals in RFP (PI, 3/10).	
Wind Capital Group	Osage (150 MW Wind)	Osage, Okla.		TradeWind Energy sealed its purchase (see story, page 6).	

New or updated listing

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

PROJECT FINANCE DEAL BOOK

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

Live Deals: Americas

Sponsor	Project	Location	Lead(s)	Loan	Loan Amount	Tenor	Notes
BluEarth Renewables	Renewable Projects	Canada	TBA	TBA	~C\$300	TBA	Sponsor looking for debt backing wind, hydro and solar projects in Canada (PI, 2/17).
Cameron LNG	LNG Export Facility	Hackberry, La.	TBA	TBA	~\$4B	TBA	Sponsor is shooting for pricing of L+175 bps (PI, 3/10).
Cape Wind Associates	Cape Wind (420 MW Wind)	Nantucket Sound, Mass.	BTMU, Natixis, Rabo	TBA	TBA	TBA	Sponsor adds Natixis and Rabo as leads with BTMU (PI, 3/31).
Cheniere Energy	Sabine Pass Trains 3 & 4 (Trains)	Sabine Pass, La.	TBA	TBA	\$4.4B	TBA	Sponsor ups the original bank loan to \$4.4 billion and taps Korean entities for a further \$1.5 billion (PI, 6/3).
Competitive Power Ventures	St. Charles	Charles County, Md.	GE EFS	TBA	~\$600M	TBA	Sponsor is looking to tighten pricing following on from the Woodbridge deal (PI, 4/14).
Dalkia/Fengate	Merrit (40 MW Biomass)	Merrit, B.C.	BTMU	TBA	\$168M	TBA	Sponsor aims to wrap the financing early next year (PI, 12/2).
Duke Energy	Los Vientos III & IV (Wind)	Starr County, Texas	TBA	TBA	~\$600M	TBA	The sponsor is slated to look for bank debt (PI, 10/7).
EDP Renewables North America	Headwaters (200 MW Wind)	Randolph County, Ind	ТВА	Tax Equity	\$350-400	TBA	The sponsor is looking to secure both equity and tax equity investment (PI, 6/24).
FGE Power	FGE Texas (726 MW Gas)	Westbrook, Texas	Goldman Sachs	TBA	TBA	TBA	The sponsor is close to lining up equity and will tap Goldman Sachs to launch a B loan (PI, 1/27).
First Wind	Oakfield (147 MW Wind)	Aroostook County, Maine	TBA	TBA	\$300M	TBA	The sponsor is shooting for pricing of L+225 bps (PI, 3/24).
Freeport LNG	Freeport (LNG Export Termial)	Freeport, Texas	Credit Suisse, Macquarie	TBA	~\$4B	TBA	More than 20 lenders are eyeing the deal, with some offering tickets of \$600M (PI, 2/10).
GDF Suez/Marubeni	GNL del Plata (LNG Re-gas)	Montevideo, Uruguay	BBVA	TBA	TBA	TBA	GDF brings in Marubeni and taps BBVA to lead the financing (PI, 8/12).
Innergex	Three projects (153 MW Hydro)	B.C., Canada	TBA	TBA	\$590M	40-yr	Innergex wrapped on one of its hydro facilities, the 17.5 MW Northwest State River (PI, 6/3).
Invenergy	Nelson (584 MW Gas)	Rock Falls, III.	GE EFS	TBA	TBA	TBA	Sponsor is looking for a bank loan backing the merchant facility (PI, 9/2).
KSPC, Samsung	Kelar (517 MW Gas)	Chile	Natixis	TBA	TBA	TBA	The JV appoints Natixis as lead on the deal (PI, 1/13).
Lake Charles Exports	Lake Charles (LNG Export Facility)	Lake Charles, La.	ТВА	TBA	TBA	TBA	Sponsor begins preliminary financing search for the potentially \$11B project (PI, 8/26) .
Magnolia LNG	Magnolia LNG (LNG Export Facility)	Lake Charles, La.	BNP, Macquarie	TBA	\$1.54B	TBA	Sponsor expected to mandate leads by year end (PI, 12/9).
New Generation Power	NGP Texas (400 MW Wind)	Haskell County, Texas	TBA	Construction/ Term/Tax Equity	~\$700M	TBA	This is the sponsor's largest deal to date (PI, 4/14).
NTE Energy	Multiple Gas-fired	U.S.	Whitehall	TBA	TBA	TBA	Sponsor is looking to line up equity investors and then debt backing three projects in the U.S. (PI, 3/10).
Pattern Energy	Panhandle II (TBA Wind)	Carson County, Texas	Credit Ag, NordLB, BayernLB	Construction	~\$500M	С	The deal will likely be a "copy, paste" of the Panhandle I deal, say observers (PI, 11/18).
Radback Energy	Oakley (586 MW Gas)	Contra Costa County, Calif.	BTMU	Term	\$990M	4-yr	Deal is temporarily put on hold following an appellate court decision (PI, 11/11).
Sempra U.S. Gas & Power	Energía Sierra Juárez (156 MW Wind)	Baja California, Mexico	BTMU	TBA	~\$250M	TBA	A club of banks and agencies are near close on the deal (PI, 3/24).
SolarReserve	Rice (150 MW Solar Thermal)	Blythe, Calif.	Morgan Stanley	TBA	\$450M	TBA	Sponsor taps Morgan Stanley to secure debt, tax equity and equity (PI, 8/26).
Tenaska	Imperial Solar Energy Center West (150 MW CPV)	Imperial County, Calif.	TBA	TBA	TBA	TBA	The company has started talking to banks as it looks to line up debt for the facility (PI, 9/23).
Transmission Developers	Champlain Hudson Transmission Line	New York State	RBC	TBA	~\$1.6B	TBA	Sponsor is aiming to line up the debt by year-end (PI, 3/3).

New or updated listing

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PROJECT FINANCE

Hannon, Sol Systems Create Solar Fund

Hannon Armstrong Sustainable Infrastructure Capital and Sol Systems have created a \$100 million fund to develop distributed solar projects. Hannon Armstrong is the sole lender to the fund and will use the capital for construction and term loans.

Hannon Armstrong is based in Annapolis, Md., and makes investments in sustainable infrastructure projects. Sol Systems is an advisory shop based in Washington, D.C., that offers project finance solutions for developers.

The fund will focus on the U.S., and is also eyeing opportunities in Ontario, the Virgin Islands and Puerto Rico, according to a spokeswoman for Sol Systems in Washington, D.C. The loans will have tenors of up to 17 years, giving the fund a competitive advantage over what developers would likely get in the bank loan market, notes a deal watcher. Pricing on the loans could not be learned by press time.

"We are open to invest in anything that fits our sustainability thesis as well as our credit and return profiles," says **Jeff Eckel**, ceo at Hannon Armstrong, adding that the smaller size of distributed generation calls for a re-consideration on how those projects are financed. "It really is not about project finance, but program finance for distributed generation."

The fund will target individual projects and portfolios. Larger projects could be up to 50 MW, notes the spokeswoman. The fund is near

close on three deals. The purpose of the fund is to streamline the project financing process, standardize documentation, allow for smaller loan size requirements, lower transaction costs and to offer flexible terms, according to a Hannon Armstrong statement.

Google, SunPower Partner On National Solar Resi Fund

SunPower has teamed up with tech giant Google on a \$250 million fund that will buy residential rooftop solar installations across the U.S.

The two companies are establishing the fund to "make it easier for thousands of households across the U.S. to go solar" by buying the solar systems that are installed on homes, Google said in a company blog post. SunPower, which will use its own solar panels, will provide the upfront capital to install the modules. Residential customers will enter a lease with the company to buy the power. SunPower launched its solar lease program in 2011 and said 20,000 homes have opted for the leases.

Google is committing \$100 million and SunPower is contributing \$150 million.

This is not Google's first foray into residential solar. It invested \$280 million in **SolarCity** and \$75 million in **Clean Power Finance** in 2011. It is Google's 16th overall renewable energy investment.

Calls placed to SunPower officials in San Jose were not returned by press time. Google officials were not available for comment.



PGE Ups Coal-Fired Stake As Retirement, Refueling Loom

Portland General Electric is in the process of consolidating its ownership of a coal-fired plant in the eastern part of Oregon as it evaluates whether to retire the facility or convert to biomass.

Portland General has agreed to buy out a 10% stake from Power Resources Cooperative, a retail power cooperative in Portland, Ore., in the 605 MW Boardman coal-fired plant in Boardman, Ore. The purchase and sale agreement follows a deal earlier in the year when the company bought out Bank of America Merrill Lynch's 15% stake in the plant. PGE now owns 90% of the plant and has "not set out on a strategy to acquire additional ownership," a spokesman told PFR in statement. Idaho Power owns 10%.

As part of the deal with PRC, the co-op is paying PGE to take over its ownership in Boardman and cover the co-op's portion of the \$68 million decommissioning costs. Boardman is on track to be taken offline as a coal-fired plant in 2020. Regulatory approval is needed for the acquisition from PRC.

PGE, based in Portland, Ore., will address the decommissioning and replacement or refueling of Boardman in its next integrated resource plan in 2017. It's currently researching the possibility of a coal-to-biomass conversion and trying to accumulate enough feedstock for a test burn on 100% biomass next year.

The test burn will give the utility information to use in its evaluation of cost to customers compared with other renewables. A biomass-fired Boardman facility is anticipated to only run seasonally and would not replace baseload generation, according to the spokesman.

Duo Angles For Northern Star Stake

CalPERS and Harbert Management Corp. have emerged as the joint frontrunner in the auction of Ontario Teachers' Pension Plan Board's stake in Northern Star Generation.

The duo emerged as a joint buyer in the final around with other bidders including **First Reserve** and **Fortistar**, say deal watchers. **UBS International Infrastructure Fund** is co-owner along-side OTPPB and is not selling its stake (PI, 3/14).

CalPERS is increasingly interested in direct investments and invested alongside Harbert when the private equity shop bought **Energy Investors Funds**' 33.3% stake in the 550 MW Astoria Energy II combined cycle plant in New York (PI, 10/17).

Houston-based Northern Star Generation owns, or has stakes in, eight facilities totaling about 1.4 GW comprised of natural gas, coal, waste coal, and fuel oil. Northern Star inked a \$146 million term loan B in December 2012 refinancing the balance on a loan from 2007, with some proceeds earmarked for a dividend recapitalization. The pricing on the seven-year loan came in at LIBOR plus 350 basis points.

MERGERS & ACQUISITIONS I

A spokesman for Citi declined to comment. A Harbert spokesman did not respond to an email or call while a member of CalPERS media team did not respond to an inquiry.

LS Snags Calpine Portfolio

LS Power is buying 3.5 GW of gas-fired assets from **Calpine Corp**. for \$1.57 billion in cash.

LS is buying six gas-fired facilities in Alabama, Oklahoma, Louisiana and South Carolina—states that Calpine does not consider core markets. The following portfolio will be owned by LS affiliate NATGEN Southeast Power, LLC:

- -1,134 MW Oneta facility in Coweta, Okla.;
- -501 MW Carville cogeneration facility in St. Gabriel, La.;
- -795 MW Decatur facility in Decatur, Ala.;
- -237 MW Hog Bayou facility in Mobile, Ala.;
- -225 MW Santa Rosa facility in Pace, Fla.; and the
- -606 MW Columbia cogeneration facility in Calhoun County, S.C.

LS and its affiliates, including hedge fund Luminus

Management, are large shareholders of Calpine and have agreed not sell off stock until the acquisition is closed, which is slated for the second quarter. LS through affiliates LS Power Fund II, the original LS Power fund and Luminus, held at least 9.54% of Calpine's stock at the end of the year, according to filings.

Calpine still owns at least 1,374 MW of facilities, including the 117 MW Auburndale and 537 MW Osprey in Auburndale, Fla., and the 720 Morgan in Decatur, Ala., that it will either try to contract or sell.

Proceeds could be used to pay down debt, fund acquisitions or development or possibly share buybacks according to Calpine. White & Case is Calpine's legal counsel on the deal.

How or when LS is going to finance the acquisition could not be immediately learned. Neither an LS official or spokesman immediately responded to inquiries.

TradeWind Inks Osage Purchase

Wind Capital Group has completed the sale of its 150 MW Osage wind project in Osage County, Okla., to **TradeWind Energy** for \$60 million.

The project, which has been valued at \$160 million, began construction last fall and is expected to start commercial operation in 2015. It has a long-term power purchase agreement with Springfield, Mo.-based **Associated Electric Cooperative Inc**. TradeWind, based in Lenexa, Kan., will take on the debt associated with Osage.

Wind Capital Group is a subsidiary of **NTR**, a renewable investment group out of Dublin. TradeWind is an affiliate of **Enel North America**.

How the project is being financed could not be immediately learned. An official at TradeWind could not immediately comment on financing plans.

MERGERS & ACQUISITIONS I

Apple Buys Ore. Hydro Project

Apple, Inc., has bought a hydro project in central Oregon from developer **Earth by Design** that is near one of its data centers in Prineville, Ore.

Apple is now the owner of the \$9 million, 5 MW run-of-canal hydro project that will use irrigated water from the Deschutes and Crooked Rivers in Jefferson County, Ore. The deal was published in the **Federal Register** earlier this month and referenced in filings with the U.S. **Federal Energy Regulatory Commission**. Apple and **EBD Hydro**, **LLC**, a subsidiary of Earth by Design in Bend, Ore., filed notice of the transfer with FERC in December.

The Cupertino, Calif.-based computer giant is developing a 20 MW solar and fuel cell project in Maiden, N.C., near a data center so

the power will be used at its Prineville, Ore., center. Apple has also looked at making tax equity investments but has not publicly disclosed any investments (PI, 12/16/11).

The project was awarded a \$7.2 million loan guarantee for 80% of its cost in 2011 from the U.S. **Department of Agriculture**'s **Rural Energy for America Program**. Whether construction has been finished could not be immediately learned.

Law firm **Stoel Rives** counseled Apple on applications with FERC, according to filings.

Jim Gordon, managing member of Earth by Design, was not immediately available to comment on the status of the loan guarantee or construction of the project. An Apple spokesperson did not immediately respond to an inquiry.

STRATEGIES I

Abengoa Closes On LatAm Transmission Refi

Abengoa subsidiary **Abengoa Transmission Sur** has closed a \$432 million 144A bond refinancing of the 500 kV transmission project in Peru. **BNP Paribas** and **HSBC** are joint lead managers (PI, 3/26).

The deal has a coupon price of 6.875%, with a 30-year tenor. The original issue discount is 99.995. The notes will be used to repay a senior secured term loan, repay related party subordinated debt, fund the debt service reserve account, pay transaction fees and expenses, fund the operation and maintenance reserve account and terminate an interest rate swap. The fully amortizing, fixed-rate debt matures one year prior to the cessation of the transmission line's 30-year contracted term with Peru's **Ministry of Energy and Mines**.

The original project budget was just over \$404 million. The notes will be used to repay a \$344 million limited recourse debt refinancing from January 2012. Proceeds from that took out an outstanding \$144 million bridge loan from Bancolombia, BCP, CAF, Corporacion Interamiericana para el Financiamiento de Infraestructura, HSBC and ING that closed in August 2010.

The Chilca Nueva-Marcona Nueva-Ocoña-Montalvo 2 consists of three 500 kV transmission lines and three substations, extending along 550 miles. The transmission line connects the Chilca substation, located nearly 37 miles south of Lima to the Poroma, Ocona and Montalvo substations in southern Peru, along with two short 220 kV transmission lines linking to existing substations. The project commenced commercial operation on Jan. 17.

Abengoa recently filed an F-1 with the intention of starting a yieldco with its global assets and this transmission line would be included in that vehicle (PI, 4/16).

Standard & Poor's and Fitch Ratings both rate the bonds BBB-.

N.C. Shop Launches Solar RFP

Solar developer **FLS Energy** is looking to buy up to 100 MW of solar photovoltaic projects in the **Duke Energy** or **Dominion North Carolina Power** service territories. The Asheville, N.C.-based company is targeting shovel-ready projects with power purchase agreements in a request for proposals process.

"We've never tried it before, but it is a new way to approach project development," says **Bru Weber**, project manager at FLS. "We think

Recent Solar Requests For Proposals

Issuer	MW
FLS Energy	100
Georgia PSC	495
Xcel Energy	150
Duke Energy	300

Source: Power Intelligence

it is proactive and unique and we wanted to give it a shot."

Projects larger than 2 MW hit the sweet spot. It would purchase a 100 MW project, but is realistically looking to purchase a number of smaller facilities, notes a company spokeswoman in Asheville, N.C. The

projects will be constructed, owned and operated by FLS Energy.

All proposals must be received on or before the close of business on May 1. FLS intends to complete the purchase of projects in winning bids within the next 12 months. The company has already received a number of inquiries, according to the spokeswoman, and intends to respond to all proposals by May 16. Purchases will be funded through the company's investors, the spokeswoman says, declining to identify them.

Founded in 2006, FLS Energy is a solar developer that owns and operates a portfolio of solar energy assets throughout the U.S. The company takes projects from conception to commissioning and does in-house system design, engineering, construction, financing and development. It has developed nearly 100 solar projects.

INDUSTRY CURRENT

Outlook for Utility Scale Renewables in California - Part I

THIS WEEK'S INDUSTRY CURRENT is written by Laura Norin, senior project manager, Julia Getchell, associate, and Heather Mehta, principal, with power and energy consultancy MRW & Associates in Oakland, Calif.

Near-term surpluses of renewable energy, a sharper focus on costs and heightened concerns over environmental impacts are the new realities in the California market for utility scale renewable power.

California's largest investor-owned utilities are expected to slow the rate at which they procure renewable energy in the near term as they meet or draw near to meeting their regulatory mandates under the state's renewable portfolio standard.

As the cost of renewable resources has fallen, regulators and utilities have both sharpened their pencils when it comes to new projects, and only projects that are competitive with the new market realities are winning in utility solicitations.

Finally, regulators are more rigorously evaluating the environmental impacts of large-scale solar and wind projects, and projects with significant environmental impacts face an uphill battle to win regulatory approval.

California is not turning away from renewable energy, but developers are likely to find a more competitive marketplace in the near term. Projects that can offer a cost or technology advantage will fare better in this tight market. Looking farther out, demand could rebound once regulators and legislators define the post-2020 renewable portfolio standards.

Meeting the 33% RPS Mandate

California's renewable portfolio standard of 33% renewable power by 2020 has led to a decade-long boom in renewable energy project development. However, the state's largest utilities

— Pacific Gas & Electric, Southern
California Edison and San Diego Gas &
Electric — have over-procured renewable power
for the near term and claim to have enough
projects under contract to meet most or all of the
2020 RPS mandate.

Presently, the utilities are exceeding annual renewable energy targets and are banking or selling off their surpluses to draw upon in later years. PG&E anticipates that it will not need to draw on its banked RPS credits until 2019 and will have enough banked credits to meet a 33% RPS requirement through late 2023. To continue meeting a 33% annual RPS target beyond 2023,

PG&E forecasts that it will need an average of 9,500 additional GWh per year from 2024 through 2030.

SDG&E similarly anticipates that it will continue to contribute

ongoing contracts and banked RPS credits, it has enough contracted resources to meet a 33% RPS requirement through 2025. SDG&E estimates that it will need an average of 2,000 GWh of incremental renewable power each year from 2026 through 2030. SCE's surplus is not as large as PG&E's or SDG&E's. SCE

surplus RPS credits to the bank through 2019 and that, between

SCE's surplus is not as large as PG&E's or SDG&E's. SCE anticipates tapping into its banked reserves by 2017, exhausting its balance in 2020, and needing an additional 7,300 GWh of renewable energy in 2020 to meet the 33% RPS requirement for that year. SCE forecasts an increasing procurement deficit post-2020, with a need, on average, for an additional 13,000 GWh of renewable procurement per year to meet a 33% RPS requirement from 2021 through 2030.

The utilities' assessments suggest limited contracting opportunities for renewable projects coming on line before 2020. However, these numbers do not tell the whole story because uncertainty associated with the utilities' forecasts may increase or decrease the forecasted need for additional renewable procurement. These uncertainties affect both the demand and supply sides of the equation.

On the demand side, the primary uncertainty is the level of future electricity sales. If sales (i.e., consumption) are higher than anticipated in the RPS assessments, then RPS requirements will be correspondingly higher and the utilities will draw down banked credits more quickly. The need for new procurement would occur earlier than currently anticipated. This is a symmetrical risk, as lower electricity sales would reduce the RPS requirement and delay the need for new procurement.

In addition to the utilities' preferred RPS procurement forecasts presented above, the utilities also developed alternate forecasts that use sales assumptions from the **California Public Utilities Commission**. Under the alternate sales forecasts, PG&E would have less need for incremental renewable procurement than in its preferred forecast (with PG&E's RPS procurement deficit delayed from late 2023 to 2025), and SCE would have greater need for incremental renewable procurement than in its preferred forecast (with SCE's RPS procurement deficit starting in 2019 instead of 2020).

On the supply side, there is the risk that some contracted projects will fail to achieve commercial operation or will be delayed. Projects under development face any number of hurdles in financing, permitting, interconnection and completion of construction.

"There is a possibility, as well, that the CPUC will modify the risk assessment approach that is used in the calculation of need for new renewable procurement. The CPUC is concerned that the utilities' assumptions of project risk are insufficient."

INDUSTRY CURRENT

Delays and cancellations are not uncommon. Historical project failure rates have been as high as 30% to 40%. While failure rates appear to have fallen significantly in recent years, project delays and failures remain a concern.

Many of the projects included as existing contracts in the utilities' procurement plans remain under development. For example, as of December 2013, only about half of the 74 renewable energy projects included in SDG&E's plan to meet its 2020 RPS were operational, with nine projects under construction and 27 projects in the preconstruction phase. SDG&E has acknowledged that some of these projects are experiencing project development-related issues that may affect their ability to meet commercial operation deadlines or even to come on line.

Development risk is accounted for in the utilities' procurement plans to varying extents. SDG&E assigns a probability of success to each individual project, with an average success rate of 75% for approved projects that have not yet begun delivering energy. SCE uses project-specific, risk-adjusted success rates for large, nearterm projects that are not yet on line and a success rate of 50% for projects with commercial operation dates more than three years out. PG&E assigns a success rate of 0% to high-risk projects and assigns a success rate of 100% to all other projects. PG&E defines high risk projects as those that have failed to meet contractual deadlines or have certain known issues that place them at risk for doing so, as well as projects that were operating in the past but have ceased operation. Accordingly, it appears that PG&E would assign a success rate of 100% to a newly-contracted project that had not yet received CPUC approval as long as that project had no known financing, permitting or interconnection issues. To the extent that this assessment or the other utilities' risk assessments underestimate project failures and delays, there may be a need for

FAST FACT

The utilities' assessments suggest limited contracting opportunities for renewable projects coming on line before 2020. additional renewable procurement to replace contracts that do not deliver as planned.

There is a possibility, as well, that the CPUC will modify the risk assessment approach that is used in the calculation of need for new

renewable procurement. The CPUC is concerned that the utilities' assumptions of project risk are insufficient. The utilities' confidential assessments have not been bench- marked against actual project success, and the utilities have been unwilling to provide data publicly that would allow such benchmarking.

In February 2014, the CPUC staff proposed formal benchmarking of utility risk assessments through an independent analysis of projects under development using a public methodology that assesses a project's risk based on the following weighted project viability categories: project technology (10%), the developer's experience (15%), site control status (25%), permitting status (25%) and interconnection progress (25%).

Under the proposal, the CPUC staff would assign each project a viability score based on a standard rubric that assesses each of these elements using pre-determined metrics. (This rubric would be a simplified version of the existing "project viability calculator.") For example, the score for developer's experience would be assessed as follows: 50 points for no demonstrated experience developing renewable energy projects, 75 points for any demonstrated experience developing renewable energy projects, 90 points for demonstrated experience developing renewable energy projects of similar size and technology, and 100 points for demonstrated experience developing renewable energy projects of similar size and technology in the utility's service territory. The CPUC staff would use the project viability score to adjust a utility's entire portfolio of RPS projects under development for risk. Staff would then benchmark the staff's risk adjustment scores against each utility's own risk adjustment to determine if there are any outliers that the utility would be required to justify in its annual RPS plan.

The CPUC is expected to issue a decision on this matter in the second quarter of 2014. It is too early to predict whether the decision will increase contracting opportunities.

Additional contracting opportunities could also emerge if the utilities sell some of their surplus renewable power to third parties with near-term need for renewable energy credits. For example, if an entity with the need for RECs in 2015 purchases some of PG&E's banked RECs, PG&E's need for new power contracts could advance by several months or more in the early 2020s when it currently anticipates relying on banked credits to meet its RPS requirements. This situation would open up new opportunities for competitively-priced renewable energy projects that are not already operational (i.e., projects that could not meet the near-term REC need directly but could meet the replacement power need in the early 2020s). The utilities have said that they will sell banked credits only if the sales price is higher than the replacement power cost. This is possible given the steep decline in renewable prices in recent years; however, opportunities are likely to be limited.

Check back next week for the authors' discussion on pricing, environmental impacts and new opportunities for generation and storage development in the second installment of this industry current.

California's three investor-owned utilities have built a surplus of renewable energy as they work to meet the state's 33% renewable by 2020 target. That surplus won't last for long.

Here's when each will need more renewable generation.

Southern California Edison2020Pacific Gas & Electric2024San Diego Gas & Electric2026

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Deutsche Snags (Continued from page 1)

Pattern Energy, for example, inked a C\$850 million (\$757.78 million) package for its K2 wind project in Canada at LIBOR plus 175 basis points (PI, 3/24).

Mitsubishi UFJ Financial Group, the top lender for the whole of 2013, comes in second, with lending heavyweights Bank of America, Goldman Sachs, Sumitomo Mitsui Financial Group, Mizuho Financial Group and Royal Bank of Canada rounding out the top ten. Credit Suisse and Barclays, which were first and second in the first quarter of 2013, are absent from the top ten.

A driving force for much of the financing sector is the maturation of the rooftop and distributed solar sector, evidenced by the growing menu of options available to it. "We have had a fairly long engagement in the solar space and this quarter there has been a lot of activity in this sector," says Chatterjee adding that, "The debt offerings now include the residential space, which allows for more diversified facilities."

Chatterjee expects that solar—which accounted for 11 of the 25 deals in North America—will continue to keep financiers busy. Developers with wind projects that have qualified for the production tax credit will also be in the market looking for construction loans

that will get taken out by tax equity, Chatterjee says. The term loan B market will also continue to be strong for both greenfield developments and refinancing.

In Latin America, local banks featured prominently with **Banco do Brasil** topping the list with \$139 million lent. Banco Santander, **BPCE**, Mizuho and Sumitomo Mitsui rounded out the top five. It was a relatively slow quarter in LatAm, however, with only \$975 million in commitments. This is down markedly from the \$5.077 billion from the corresponding quarter last year. — *Nicholas Stone*

DOE Pitches (Continued from page 1)

other things that could qualify, but this is what we'd like to see," says an attorney in Washington, D.C. of the DOE's strategy in the latest call.

Winning applicants will be at least partially responsible for paying the credit subsidy associated with the loan guarantee—a cost that could represent more than 11% of the total project's cost. In past solicitations the credit subsidy, which is the required loan loss reserve held by the U.S. **Department of Treasury** for any federal loan or guarantee, has either been totally covered by appropriations or wholly funded by the applicant. The **Federal Financing** Bank will

POWER TWEETS

The #Power Tweets feature tracks trends in power project finance and M&A in the Americas on **Twitter**. For more news and coverage, follow @power_intel on Twitter, as well as Managing Editor @Holly Fletcher, Editor @SaraReports and Senior Reporter @NicStone.

@ NicStone: US adds 584 MW of solar in first quarter, reaches 8.67 GW in March: pv-magazine: http://www.pv-magazine.com/news/details/beit-

 $rag/us-adds-584-mw-of-solar-in-first-quarter--reaches-867-gw-in-march-_100014864/\#. U1aHoRwzWsE.twitter \dots$

@billmckibben: Solar jobs growing at 10x national average https://joinmosaic.com/blog/solar-jobs-growing-10-times-national-average/?utm_source=Mosaic+Newsletter&utm_campaign=dbc588c0bb-Apr_Newsletter_4_22_2014&utm_medium=email&utm_term=0_0e152f2d87-dbc588c0bb-317845501...

@ MeisterWorks: Great to see #energystorage playing a role in @ WhiteHouse #solar plans | Supporting Solar Deployment and #Jobs http://www.whitehouse.gov-/the-press-office/2014/04/17/-fact-sheet-building-progress-supporting-solar-deployment-and-jobs ...

@nrgenergy: FACT: #Solar adoption grew 41% in '13. This & more at our #solarisnow chat on 4/29 w/ @ENERGY

@chadbourneparke: The latest #projectfinance newswire is out! Outlook for utility-scale #renewables in Calif., #NY green bank & more http://bit.ly/1IBKEen

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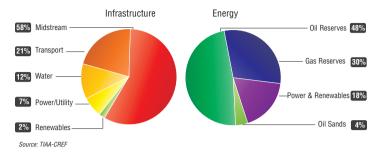
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@genscape #NatGas Basis: Northern Border Natural #Gas Flow into US Decreased by 1 Bcf Per Day As #AECO-Midcon Spread Collapse http://gensca.pe/1jVHroP

TIAA-CREF Power (Continued from page 1)

TIAA-CREF Equity Portfolio



wants to close the financing for Cricket Valley by year-end and is evaluating its financial options. "Power markets are starting to get tighter. People on the other side are beginning to want to see new generation," says Spang. "That's where we come in." It hasn't hired a financial advisor.

Cricket Valley does not have a power purchase agreement at the moment although it was bid into the **New York Power Authority** request for proposals to replace Indian Point nuclear plant if it goes offline. That process is on hold however, and Advanced Power is planning to move forward with the financing with or without a contract. If a contract does not emerge from the NYPA process, then the company will take a route that includes a hedge and merchant tail.

TIAA-CREF prefers contracted projects or operational assets but is open to the merchant tail on Cricket Valley because the project is in the NYISO, a market that offers greater clarity into its future demand and pricing than other markets. "I can't say I have a huge appetite for merchant energy plants. I like to be opportunistic, but I much prefer contracted power," says **Lisa Ferraro**, managing director and head of energy & infrastructure portfolio management at TIAA-CREF in New York.

GE Energy, the equipment supplier for the project, has a 40% stake in Cricket Valley alongside **Marubeni** with 20%. Advanced Power owns 5%. The equity roster in Cricket Valley is likely to shift around by the time it reaches financial close, says Spang, noting that GE Energy is expected to bring in a partner. Marubeni is keen to remain a co-owner, he notes. **White Hall & Co.** advised on the equity raise that brought in TIAA-CREF (PI, 7/12).

Looking Ahead

Ferraro and Spang are in the process of formalizing an agreement that gives TIAA-CREF the opportunity to invest in other Advanced Power projects as well as partner on acquisitions. The duo would be open to acquisitions of operating assets, too. Advanced Power's 700 MW Carroll CCGT project in Carroll County, Ohio, is quickly moving through the development process, notes Spang.

TIAA-CREF has an existing equity portfolio that it began building in 2008 and has investments in the U.S., Canada, Europe and Australia.

Advanced Power NA is a subsidiary of Swiss developer **Advanced Power**. - Holly Fletcher

DOE Pitches (Continued from page 11)

provide loans garnered under the latest call, at rates that are below those commercially available.

The DOE has yet to clarify how it will decide to apportion the credit subsidy costs. **Peter Davidson**, the executive director of the loan guarantee program, was not available for comment and a spokeswoman for the DOE in Washington did not respond to inquiries

These costs combined with increased application fees and a historically complex process and term sheets, could deter some potential applicants, the attorney notes. The part 1 application fee is \$50,000 dollars, while part 2 will be \$150,000 for projects seeking up to \$150 million and \$350,000 for projects with a higher price tag, a steep rise from the roughly \$18,750 to \$50,000 required for both rounds of earlier solicitations. Deadlines for the latest call have not been officially announced, but observers peg part 1 to be due before year-end.

Some developers, especially in energy storage arena, are still enthusiastic about the latest solicitation. "It's energy, money and time consuming. But, the advantages of getting a guaranteed loan outweigh all of that," says **Joe Spease**, founder of compressed air energy storage and renewables developer **WindSoHy** in Kansas.

The solicitation is a descendent of the 1703 program, which had its most recent call for projects last year. The funds for that \$8 billion call, which focused on advanced fossil fuel projects, have been recycled into this latest call because it did not yield any successful applicants.

- Sara Rosner

PEOPLE & FIRMS

CS Adds Managing Director From Deutsche

Credit Suisse has hired **Jonathon Kaufman** from **Deutsche Bank** as a managing director.

Kaufman will be in the power and renewable group and will work with U.S. co-heads **John Cogan** and **Ahmad Masud**, according to an internal memo. He starts in the New York office in July.

Kaufman was most recently a managing director in the global natural resources group for Deutsche Bank in New York where he worked with independent power producers, utilities and private equity shops.

This is Credit Suisse's second hire in the recent weeks. **Frank Napolitano** is currently on gardening leave before joining the firm as its global head of power and renewables in June (PI, 3/20). Napolitano was managing director and head of U.S. power and utilities investment banking team for **Royal Bank of Canada** in New York.

A Credit Suisse spokesman confirmed the contents of the memo. Kaufman could not be reached for comment.