

# Power Finance & Risk

Exclusive Insight on Power M&A and Project Financing



## PFR HEDGING & OFFTAKE STRATEGIES ROUNDTABLE 2021. *Page 8*

### ● MERGERS & ACQUISITIONS

#### Altus merges with CBRE SPAC, goes public

**Altus Power** has merged with a **CBRE Group**-sponsored special-purpose acquisition company, triggering its debut as a publicly traded company. *Page 5.*

### ● LATIN AMERICA

#### Sponsor to sell Chilean renewables platform

A sponsor has launched the sale of a portfolio company in Chile, which owns 332 MW across operational wind farms. *Page 16.*

### ● PEOPLE & FIRMS

#### Credit Suisse snags new head of power, renewables

**Credit Suisse** has hired a new global head of power and renewable energy investment banking from rival **Bank of America**. *Page 18.*

## Consortium closes gas-fired asset debt in Panama

Carmen Arroyo

A consortium led by **InterEnergy** has reached financial close on a debt package that will finance a 656 MW LNG-to-power project in Panama.

**Natixis** and **SMBC** had reached out to banks to syndicate the \$786 million seven-year financing for the Gatun gas-fired project on October 6. At the time, ten banks joined the syndication, with the financing closing on November 29. They were:

- **Société Générale**
- **Scotiabank**
- **Sabadell**
- **Intesa Sanpaolo**
- **Bank of China**
- **ICBC**
- **Mega International Commercial Bank**
- **Banco Nacional de Panama**
- Panama's **Caja de Ahorros**
- **Banco Aliado**

The funds were disbursed on December 10. *PAGE 17»*



## Sponsor clinches debt for Texas peaker

Alfie Crooks

A **ProEnergy** subsidiary has closed on a project finance deal to support a 288 MW gas-fired peaking plant in Texas.

In late October, **Wattbridge Energy** secured the \$219 million debt package to finance the Brotman peaker plant, located in the ERCOT Houston Zone in Brazoria County.

The plant's financing is split between:

- \$97.5 million term loan
- \$85 million heat-rate call-option letter of credit
- \$29.5 million letter of credit facility
- \$7 million revolver

The package's tenor lasts seven years after the project's *PAGE 7»*

## Sale for Boston-based solar platform in second round

Alfie Crooks

A sale process for a distributed generation solar and storage platform is entering its second round, with additional bids due at the end of January.

The potential buyers are vying for a simple majority stake in Boston, Massachusetts-based solar developer **BlueWave**, **PFR** understands. The stake would be purchased through a combination of primary and *PAGE 6»*

## Buyer emerges for Macquarie's Savion

Alfie Crooks

A winning bidder has emerged for a **Macquarie Capital's** solar and energy storage development platform, **Savion**.

**Shell New Energies**, the renewable energy business of oil and gas giant **Shell**, has agreed to purchase the platform from Macquarie's **Green Investment Group** following a two-stage auction process (*PFR, 9/9*).

**Savion** launched *PAGE 5»*



## ● IN THIS ISSUE

### MERGERS & ACQUISITIONS

- 5 | Altus merges with CBRE SPAC, goes public
- 5 | Apex inks 1 GW solar deal
- 5 | DIF completes Bernhard acquisition
- 6 | Standard Solar buys Oregon community solar
- 6 | Goldman Sachs to buy Maine solar portfolio
- 6 | South Korean investor buys stake in Rev Renewables
- 6 | CPP Investments buys equity in renewables retailer

### PROJECT FINANCE

- 7 | Crypto mining developer seals debt, equity financing
- 7 | Solar developer receives additional funding from NEC

### PFR ROUNDTABLE

- 8 | PFR Hedging and Offtake Strategies Roundtable 2021

### LATIN AMERICA MERGERS & ACQUISITIONS

- 16 | Sponsor to sell Chilean renewables platform

- 16 | Canadian Solar offloads Brazilian project
- 16 | MPC, Leclanche partner for St. Kitts project
- 16 | Chilean, Uruguay duo partner for green hydrogen
- 16 | Details emerge on ISA bond issuance

### LATIN AMERICA PROJECT FINANCE

- 17 | Ecuador launches power tender trio
- 17 | Bridge financing for Colombian assets nears close

### PEOPLE & FIRMS

- 18 | Credit Suisse snags new head of power, renewables
- 18 | White & Case adds partner from Jones Day
- 18 | Machado promotes Machado

### DEPARTMENTS

- 3 | Generation Auction & Sale Calendar
- 4 | Project Finance Deal Book

## ● PPA PULSE

### SCOUT LANDS PPA FOR REPOWERING WIND PROJECT

Scout Clean Energy, a Quinbrook Infrastructure Partners portfolio company, has secured a power purchase agreement for the output of a wind project in California that the firm is planning to repower.

Peninsula Clean Energy, a Californian community choice aggregator, will purchase 76.35 MW of the Merced County-based Pacheco Pass project's output under a 15-year PPA.

The Pacheco Pass project, which was originally built almost 40 years ago, has a capacity of 18.4 MW but the repowering will see it increase to 147.5 MW. In conjunction with the repowering, the project will be renamed the Gonzaga Ridge Wind Farm.

Construction on the repowering is expected to begin in late 2023 and will also add a 50 MW/ 200 MWh battery storage facility to the wind project. The repowered project is due online by October 2024. Scout purchased the project in 2018 from International Turbine Research.

"The increase in renewable energy generated from this overall project helps demon-

strate the potential for more of these type projects in the future," said Michael Ruckner, CEO of Scout. "With some of the aging infrastructure, especially in California, we hope this serves as an example for repowering projects across the country."

### LISARB INKS WIND PPA IN BRAZIL

Brazilian developer Lisarb Energy has inked a 12-year power purchase agreement with an energy trading company for a wind farm in Brazil.

Tradener will buy 97 MW from a Lisarb-owned wind farm in Rio Grande do Norte, which is currently under development, starting in early 2024. The project, which will produce 4.4 TWh of electricity per year, will come online during the summer of 2023.

Lisarb will invest R\$244.4 million (\$42.9 million) in the asset.

"This important deal with Lisarb Energy will help us to reach our goal to supply 1 GW of sustainable energy to our customers," said Jorge Caliar, Tradener's commercial director.

Lisarb has inked other PPAs with corporate offtakers before, such as one with Raizen. ■

## PFR Power Finance & Risk

### EDITORIAL

Taryana Odayar  
Editor  
(212) 224 3258

Carmen Arroyo  
Reporter  
(212) 224 3256

Alfie Crooks  
Reporter  
(646) 841 3651

Kieron Black  
Sketch Artist

PRODUCTION  
Tim Huxford  
Manager

PUBLISHING  
Adam Scott-Brown  
Director of Fulfillment

Alyssa Yang  
Senior Marketing  
Executive

### SUBSCRIPTIONS

Guy Dunkley  
Senior Sales Manager  
(212) 224 3443

### ADVERTISING/ REPRINTS

Jonathan McReynolds  
Head of Business Development  
(212) 224 3026

### CORPORATE

Andrew Rashbass  
Chief Executive Officer

Jeffrey Davis  
Divisional Director,  
Financial & Professional Services

Isaac Showman  
CEO, NextGen Publishing

### Directors:

Leslie Van de Walle (Chairman)  
Andrew Rashbass (CEO)  
Wendy Pallot (CFO)  
Jan Babiak  
Colin Day  
Imogen Joss  
Tim Pennington  
Lorna Tilbian

### Customer Service

PO Box 4009, Chesterfield, MO 63006-4009, USA  
Tel: 1-212-224-3043  
Fax: 212-224-3886  
UK: 44 20 7779 8704 Hong Kong: 852 2842 8011  
E-Mail: mailto:customerservice@powerfinancerisk.com

### Editorial Offices

1120 Avenue of the Americas, 6th Floor, New York, NY 10036  
Power Finance & Risk is a general circulation newsweekly.  
No statement in this issue is to be construed as a recommendation to buy or sell securities or to provide investment advice.  
Power Finance & Risk © 2021  
Institutional Investor, LLC ISSN# 1529-6652  
Copying prohibited without the permission of the publisher.

**COPYRIGHT NOTICE:** All materials contained in this publication are protected by United States copyright law and may not be reproduced, distributed, transmitted, displayed, published, broadcast, photocopied or duplicated in any way without the prior written consent of Institutional Investor. Copying or distributing this publication is in violation of the Federal Copyright Act (17 USC 101 et seq). Infringing Institutional Investor's copyright in this publication may result in criminal penalties as well as civil liability for substantial money damages. ISSN# 1529-6652

### Postmaster

Please send all undeliverable Mail and changes of addresses to:  
PO Box 4009 Chesterfield, MO 63006-4009 USA

## 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 Taryana Odayar, Editor, at (212) 224-3258 or taryana.odayar@powerfinancerisk.com

## GENERATION AUCTION &amp; SALE CALENDAR ●

These are the current live generation asset sales and auctions, according to Power Finance and Risk's database.

## Generation Sale DATABASE

Seller	Assets	Location	Adviser	Status/Comment
8minute	Southern Bighorn (300 MW Solar, Storage)	Nevada	OnPeak Capital	Second round bids are being taken as of late October (PFR, 11/01).
Actis	Aela Energia	Chile	Credit Suisse	Binding offers were received on December 10 (see story, page 16).
AES Corp	Mountain View (67 MW Wind, 25%) Laurel Mountain (125 MW Wind, 25%)	California West Virginia		AIMCo has struck a deal to buy the interests as of early November (PFR, 11/8).
Altus Power	Altus Power	US	Citigroup, Fifth Third Bank, Morgan Stanley, JP Morgan	The firm has merged with CBRE Group and become a publicly-listed company as of early December (see story, page 5).
Beacon	Beacon Solar	US		BayWa r.e. has purchased the company as of early December (PFR, 12/13).
Bernhard Capital Partners	Bernhard	US	JP Morgan Securities, Macquarie Capital USA	DIF Capital Partners has closed the purchase of the firm as of early December (see story, page 5).
BlackRock	Crockett Cogeneration (240 MW Gas, 91.78%)	US	Guggenheim Securities	Hull Street Energy has agreed to buy the asset as of early November (PFR, 11/15).
BlueWave	BlueWave	Massachusetts	Scotiabank	The sale process has entered its second round, with bids due at the end of January (see story, page 6).
Biwo Renewables, LatSolar Energy Investments	Portfolio (200 MW Solar)	Chile		SUSI Partners has agreed to acquire the portfolio as of late October (PFR, 11/01).
Buenavista Renewables	Los Santos I (15.8 MW [DC] Solar)	Mexico		MPC Energy Solutions has agreed to buy the asset as of early November (PFR, 11/15).
BW Solar	Portfolio (1.3 GW/1.62 GWh Solar, Storage)	US		Capital Power has won the auction to buy the portfolio as of early December (PFR, 12/13).
Canadian Solar	Jaiba V (635 MW [DC] Solar)	Brazil		VTRM Energia Participações has bought the asset as of early December (see story, page 16).
Carlyle Group	Valcour (612 MW Wind)	New York	Nomura Greentech	AES Clean Energy has closed the purchase of the portfolio (see story, online).
Casa dos Ventos	Sento Se I, II (850 MW Wind)	US		Acciona has agreed to buy the assets as of late November (PFR, 12/6).
Castleton Commodities International	Granite Shore Power (1,110 MW, fossil fuel)	New Hampshire		The seller has agreed to sell its share in the fossil fuel joint venture to Atlas Holdings as of October 20 (PFR, 10/25).
Cemig	Renova Energia	Brazil		AP Energias Renovaveis has inked a deal to buy the firm as of November 12 (PFR, 11/22).
Clearway Energy	Clearway Community Energy	US	Bank of America, TD Securities	KKR & Co has struck a deal to purchase Clearway Energy's thermal power business as of late October. It will close in mid-2022 (PFR, 11/01).
Connecticut Municipal Electric Energy Cooperative	Al Pierce Generation (84 MW Gas)	Connecticut		Hull Street Energy has agreed to buy the asset as of mid-October (PFR, 10/18).
Dynamic Energy Solutions	Portfolio (70 MW Solar)	Maine		Goldman Sachs Asset Management's Renewable Power Group has agreed to buy the portfolio (see story, page 6).
esVolta	Project Monarch (900 MWh Storage)	California	Citi	Teasers were distributed in early October (PFR, 11/01).
Harbert Management Corp	Calhoun Generating Station (632 MW Gas, Oil)	Alabama		Alabama Power has agreed to buy the asset as of early November (PFR, 11/8).
Leclanche	St Kitts (the 35.7 MW Solar, 14.8 MW/ 45.7 MWh Storage)	St Kitts		MPC Energy Solutions has purchased a 40% stake in the asset as of early December (see story, page 16).
LS Power	Rev Renewables (10.7%)			SK E&S has closed the purchase of the equity as of early December (see story, page 6).
Macquarie Capital	Savion	US	Guggenheim Securities	Shell New Energies has emerged as the winning bidder for the platform (see story, page 1).
NextEra Energy Resources	Portfolio (2,520 MW Wind, Solar, Storage, 50%)	US	TD Securities	OTPP has agreed to buy the stake as of late November (PFR, 12/6).
Otter Tail Power Co	Coyote Station (420 MW Coal, 35%)	North Dakota		The company plans to sell its stake in the asset (PFR, 9/13).
Partners Group	Sentinel (850 MW Gas, 25%)	California	BNP Paribas	The sponsor will take first round bids in early November (PFR, 11/15).
Recurrent Energy	Gaskell West II (45 MW Solar, 20 MW/80 MWh storage)	California		Matrix Renewables has agreed to buy the assets as of mid-November (PFR, 11/22).
Rialma Administracao e Participacoes	Rialma Transmissora de Energia III	Brazil		Argo agreed to buy the company as of November 4 (PFR, 11/15).
Rockland Capital	Rabun Gap (18 MW Biomass)	Georgia	Thorndike Landing	Teasers were distributed earlier this month (PFR, 10/25).
Sowitec Operation	Wimke (76 MW Solar)	Colombia		Engie agreed to acquire the project as of early November (PFR, 11/15).
Undisclosed	Portfolio (10 MW Solar)	Oregon		Standard Solar has bought the portfolio as of early December (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 Taryana Odayar at (212) 224 3258 or e-mail taryana.odayar@powerfinancerisk.com

## PROJECT FINANCE DEAL BOOK

Deal Book is a matrix of energy project finance deals that Power Finance & Risk is tracking in the energy sector.

### Live Deals: Americas

Sponsor	Project	Location	Lead(s)	Deal Type	Loan Amount	Tenor	Notes
Arevon Energy	Townsite (193.95 MW Solar)	Nevada	Goldman Sachs	Tax Equity			The sponsor secured tax equity as of early December (PFR, 12/13).
Avangrid Renewables, Copenhagen Infrastructure Partners	Vineyard Wind (800 MW Wind)	Massachusetts	Bank of America, JP Morgan, BBVA, NatWest, Santander, Crédit Agricole, Natixis, BNP Paribas, MUFG	Construction loan	\$2.4b	C+7yr	The syndication was launched on October 7 (PFR, 10/18).
Castleton Commodities International	Riverview Power (1.4 GW Gas)	New York, Texas	Morgan Stanley	Term loan B	\$205m	7-yr	The deal, which will refinance the portfolio, was launched in mid-April (PFR, 5/3).
Celsia	Tesorito (198.7 MW Gas)	Colombia	SMBC, Santander	Bridge loan	\$90m		The banks expect to close the financing before the end of the year (see story, page 17).
	Portfolio (215 MW Solar)	Colombia	Bancolombia	Bonds	\$35m	12-yr	The bonds were issued in late November (PFR, 12/6).
Cox Energy America	Sol de Vallenar (308 MW (DC) Solar)	Chile					The sponsor is looking for debt for the asset as of February 12 (PFR, 2/22).
Daroga Power, Bloom Energy	Portfolio (33 MW Fuel cell)	US	Silicon Valley Bank, ING Capital, Rabobank	Construction-to-back-leveraged term loan	\$225m		The sponsor is raised financing over the summer (PFR, 10/25).
Enel Green Power	Wsyra I (132 MW Wind)	Peru	IDB Invest	Construction loan	\$85m	15-yr	IDB Invest is expected to review the financing on December 7 (PFR, 11/15).
Engie	Santo Agostinho (434 MW Wind)	Brazil	BNDES	Construction loan	\$262.3m	22-yr	The sponsor has inked the debt package as of early December (see story, online).
InterEnergy, AES Panama, Panamanian government	Gatun (656 MW Gas)	Panama	SMBC, Natixis, Société Générale, Scotiabank, Sabadell, Intesa Sanpaolo, Bank of China, ICBC, Mega International Commercial Bank, Banco Nacional de Panama, Caja de Ahorros, Banco Aliado	Construction loan	\$786m	7-yr	The sponsors reached financial close on November 29 (see story, page 1).
I Squared Capital	Atlantic Power portfolio (1,160 MW Gas, Biomass, Coal)	US	RBC Capital Markets, MUFG	Term loan B	\$360m	6-yr	The banks met on March 18, with commitments due on April 1 (PFR, 3/22).
				Ancillary facilities	\$45m		
Lucayas Solar Power	Grand Bahama (11 MW (DC) Solar)	Bahamas	IDB Invest	Construction loan	12m		The sponsor is looking for debt for the asset as of September 21 (PFR, 10/25).
Macquarie Infrastructure and Real Assets	Wheelabrator Technologies, Tunnel Hill Partners	US	Credit Suisse	Term loan	\$1bn	7-yr	The sponsor is combining and refinancing the portfolio companies, with commitments taken on March 19 (PFR, 3/15).
				Ancillary facilities	\$400m	5-yr	
Matrix Renewables	Portfolio (154 MW (DC) Solar)	Chile	BNP Paribas				The sponsor mandated the bank for a financing in February (PFR, 5/17).
National Grid Renewables	Prairie Wolf (200 MW Solar)	Illinois	Bank of America	Tax Equity	\$98m		The sponsor secured the financing as of early December (PFR, 12/13).
NextEra Energy Resources	Sky River (77 MW Wind)	California					The sponsor was arranging financing for the asset as of the third week of May (PFR, 5/31).
NextEra Energy Partners	Portfolio (1,260 MW Wind, Solar, Storage)	US	Apollo Global Management	Convertible equity	\$824m	10-yr	NextEra is dropping the portfolio into its yieldco, which will finance the assets once the purchase closes (PFR, 11/8).
Repsol, Ibereolica	Odessa (Wind, Solar)	Chile			\$220m		The sponsors were nearing financial close on the deal as of the first week of August (PFR, 8/9).
Rockland Capital	Port Comfort (100 MW)	Texas	Investec	Term loan			The sponsor is arranging the financing and expects to close it by the end of the year (PFR, 12/6).
	Chammon (100 MW)			Revolver	\$30m		
Soleco Energy	Jamaican DG solar portfolio (11.25 MW)	Jamaica	IDB Invest		\$25m		The sponsor is looking for debt for the asset as of August 27 (PFR, 10/25).
Soventix Guayana	Portfolio (2.5 MW [DC] Solar, Storage)	Guyana	IDB Invest	Construction loan	\$5m		The sponsor requested the debt as of late August (PFR, 11/8).
Wattbridge Energy	Brotman (288 MW Gas)	Texas	MUFG, Cobank, Nomura	Term loan	\$219m	C+7yr	The sponsor secured the debt in late October (see story, page 7).

#### 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 Taryana Odayar at (212) 224 3258 or email taryana.odayar@powerfinancerisk.com



## NORTH AMERICA MERGERS &amp; ACQUISITIONS ●

## Buyer emerges for Macquarie's Savion

◀FROM PAGE 1 the platform's sale process in September after mandating **Guggenheim Securities** to lead the process. At the end of October, bidders were asked to reevaluate and resubmit bids for the platform, as previously reported by *PFR* ([PFR, 10/26](#)).

The request to resubmit bids came after some of the original bids had been "quite aggressive," according to sources familiar

with the situation. A second round of bids was resubmitted in November.

The deal is expected to close before the end of the year.

Through the transaction, Shell will gain control of the over 18 GW project development pipeline of solar and battery storage assets that Savion owns. Savion also has more than 2 GW of projects that are operational, un-

der construction or contracted across 11 US states

"Savion's significant asset pipeline, highly experienced team, and proven success as a renewable energy project developer make it a compelling fit for Shell's growing integrated power business," said **Wael Sawan**, Shell's Integrated Gas and Renewables & Energy Solutions director. "As one of the fastest-growing, lowest-cost renewable energy sources, solar power

is a critical element of our renewables portfolio as we accelerate our drive to net zero."

Savion is the second US renewables platform that Shell will hold interest in after the company purchased a minority stake in **Silicon Ranch** in 2016. Savion was launched in November 2019, following Macquarie's **Green Investment Group's** acquisition of the solar and energy storage unit of **Tradewind Energy** ([PFR, 3/27](#)). ■

## Altus Power merges with CBRE SPAC, goes public

Blackstone-owned **Altus Power** has completed its merger with a **CBRE Group**-sponsored special-purpose acquisition company (SPAC), triggering its entry into the **New York Stock Exchange** as a publicly traded company.

Altus and **CBRE Acquisition Holdings** (CBAH), the blank check company sponsored by Dallas-based real estate company CBRE, announced plans to merge in July ([PFR, 7/14](#)). The decision was unanimously approved by CBAH's Board of Directors on December 6, with Altus entering the NYSE on December 10.

Under the terms of the deal, Altus has received \$636.5 million

comprised of funds from CBAH's former trust account and from a private placement in public equity (PIPE). The proceeds will go towards Altus Power's expansion as it seeks to grow its pipeline of commercial and industrial (C&I) and community solar projects.

The advisers on the merger are:

- **Citigroup** – financial adviser to Altus and placement agent on the PIPE to CBAH
- **Fifth Third Bank** – capital markets adviser to Altus
- **Morgan Stanley** – financial adviser and lead placement agent on the PIPE to CBAH
- **JP Morgan** – financial adviser and placement agent on the

PIPE to CBAH

- **Simpson Thacher & Bartlett** – legal counsel to CBAH
- **Ropes & Gray** – legal counsel to Altus

"As the C&I solar market expands, and energy storage and community solar offerings grow, we have the resources and expertise to make clean, cost effective, reliable power more widely available across the United States and beyond," said **Lars Norell** co-CEO of Altus. "The entire Altus Power team is focused on making this a reality by leveraging our digitally enabled, data-driven offering to unlock value for customers of all types every day." ■

## Apex inks a 1 GW solar, storage deal

**Apex Clean Energy** has signed a deal with a private timberland owner to develop 1 GW of utility-scale solar and solar-plus-storage projects.

Under the terms of the agreement, Apex will develop projects on land owned by **Weyerhaeuser Co.**, a firm that owns or controls around 11 million acres of timberlands in the US. The facilities will all be located in the Southeast US with the first ones expected to come online by early 2023.

"This significant portfolio of clean energy projects will be developed leveraging Weyerhaeuser's broad and geographically diverse landholdings and Apex's track record of bringing commercially viable clean energy projects to market," said **Ellen Balfrey**, Apex's senior vice president of finance. "This unique collaboration will create opportunities for all types of energy purchasers who are seeking to decarbonize their operations in the coming years." ■

## DIF completes acquisition of Bernhard

**DIF Capital Partners** has completed its acquisition of **Bernhard**, the largest privately-owned Energy-as-a-Service (EaaS) solutions company in the US.

DIF, through its fund DIF Infrastructure VI, bought the company from an affiliate of **Bernhard Capital Partners**. It announced plans to acquire the EaaS solutions company in October 2021.

Bernhard has provided solutions to its customers' energy and infrastructure needs for over

100 years. In 2014, it shifted its focus to become a EaaS provider.

As part of its business model, Bernhard enters into long-term turnkey concession contracts to upgrade, retrofit and service large existing building energy facilities to achieve substantial energy savings. Its clients are usually in the higher education and healthcare space.

Bernhard's senior management will retain a meaningful ownership position and continue working at the company.

Bernhard was advised on the transaction by:

- **JP Morgan Securities** – financial
  - **Kirkland & Ellis** – legal
- DIF was advised by:
- **Macquarie Capital USA** – financial
  - **White & Case** – legal
  - **Black & Veatch Management Consulting** – technical
  - **RWDI** – energy
  - **Deloitte Canada** – financial, accounting and tax
  - **Oliver Wyman** – commercial

## ● NORTH AMERICA MERGERS & ACQUISITIONS

# Sale for Boston-based solar platform in second round

◀ **FROM PAGE 1** secondary offering of equity in the company.

The sale process, codenamed Project Sunrise, kicked off in September after marketing materials were circulated by the financial lead, **Scotiabank**.

The platform is seeking “mission-aligned investors” who may be open to alternative deal structures that would facilitate BlueWave’s growth, according to marketing materials. The developer, which operates primarily in the

Northeast and Mid-Atlantic regions of the US, has built and sold over 200 MW of distributed solar since the company’s founding in 2010.

Despite having traditionally developed community solar

projects, BlueWave has begun exploring the energy storage market, amassing a 1.7 GW pipeline of battery storage projects. The company also owns an additional 618 MW pipeline of solar assets. ■

# Standard Solar buys Oregon community solar portfolio

**Standard Solar** has purchased a 10 MW three-project portfolio of community solar projects in Oregon from an undisclosed seller.

Construction on the projects will start in 2022, with the port-

folio serving customers in the **Portland General Electric** (PGE) and **Pacific Power** service territories once online.

“This latest acquisition underscores the company’s expansion in the burgeoning Oregon

market and across the US,” said **Mike Streams**, Standard Solar’s chief development officer. “These projects match our aggressive growth strategy, buying great projects that we will own for the long-term and tak-

ing strides to boost our nation’s clean energy transition and economy.”

In July, Standard Solar purchased another 35 MW portfolio of community solar assets in Maine ([PFR, 7/27](#)). ■

# Goldman Sachs to buy Maine solar portfolio

**Goldman Sachs Asset Management’s** Renewable Power Group has agreed to purchase a 70 MW portfolio of distributed solar assets in Maine.

Goldman Sachs will acquire the 11-project portfolio from **Dynamic Energy Solutions**, a commercial and utility-scale solar de-

veloper. The portfolio is spread across Corinth, Madison, Norridgewock, Enfield, Exeter, Glenburn, Gray, Guilford, Leeds, and Wales, and is expected to come online between 2022 and 2023.

The facilities were developed under Maine’s net energy bill credit program and will connect

to the **Central Maine Power** and **Versant** utility territories. They will sell their output to businesses in Maine under power purchase agreements.

“Achieving project financing agreements for these projects is an important milestone,” said **John Motta**, chief development

officer of Dynamic Energy Solutions. “Once completed, these projects will generate significant benefits for several of the largest employers in Maine as well as supplemental income streams for landowners throughout the state. We are grateful for each stakeholder who has supported these great projects and are proud to contribute to the State’s important renewable energy goals.” ■

# south korean investor buys equity in LS Power platform

South Korean investor **SK E&S** has closed on its purchase of equity in **LS Power’s** newly formed renewable energy platform, **Rev Renewables**.

SK E&S will make an initial \$300 million equity investment in Rev Renewables for a 10.7% voting share in the company through

its **Grid Solutions II** subsidiary.

As part of the deal, SK E&S, an **SK Group** affiliate, will also be able to purchase up to 25% of Rev Renewable’s equity for an undisclosed sum, as stated in a US **Federal Energy Regulatory Commission** (FERC) filing from October 18. The two companies

agreed to the deal in October ([PFR, 10/18](#)), but they closed it on December 13, according to a FERC filing.

Rev was unveiled in August with 2.4 GW of solar, wind and energy storage projects drawn from LS Power’s existing portfolio, as previously reported ([PFR, 8/11](#)).

The advisers on the deal were:

- **Morgan Stanley** and **RBC Capital Markets** – financial advisers to Rev Renewables
- **Bank of America Securities** – financial adviser to SK E&S
- **Willkie Farr & Gallagher** – legal counsel to Rev Renewables
- **O’Melveny & Myers** – legal counsel to SK E&S ■

# CPP Investments buys equity in renewables retailer

The **Canadian Pension Plan Investment Board** (CPP Investments) has made a \$300 million equity investment in a renewable energy retail company.

The investment is part of a long-term strategic partnership between CPP Investments and

**Octopus Energy Group**, under which CPP Investments will make additional capital commitments to the company further down the road.

The initial equity investment will go towards supporting the global expansion of Octopus

Energy’s technology platform, **Kraken**. Kraken is licensed to **Origin Energy**, **E.ON UK**, **Good Energy**, **Hanwha** and **EDF** and supports 3 GW of generation.

The investment was made through CPP Investments’ Sustainable Energies Group, led

by **Bruce Hogg**, which boasts around C\$19.5 billion (\$15.22 billion) in total assets, including investments in renewables, utilities, and power generation. CPP Investments combined its power and sustainable energy group with its energy resources group to form the Sustainable Energies Group in April ([PFR, 4/7](#)). ■

## NORTH AMERICA PROJECT FINANCE ●

# Sponsor clinches debt for Texas peaker

«FROM PAGE 1 construction is completed, which is scheduled for November 2022. Construction began in September.

The financing was led by **MUFG**, with **CoBank** and **Nomura** joining the Japanese outfit.

WattBridge began reaching out to lenders for the debt in September of last year with an eye on assembling a roughly \$150 million

package for the construction of the asset, as previously reported by *PFR* ([PFR, 9/24/20](#)).

When looking for potential lenders, the company proposed a margin of 250 bp over Libor for the loans, *PFR* learned. Pricing on the finalized debt package could not be learned by press time.

WattBridge plans to keep construction costs low by using re-

furbished simple-cycle turbines, in this case **General Electric's** LM6000 model. The plant has an estimated summer nominal heat rate of 9,725 Btu/kW.

## LASTING RELATIONSHIP

This latest transaction marks the third financing MUFG has participated in for a ProEnergy-owned plant over the last two years.

The bank was the bookrunner

on the \$160 million debt package for the 288 MW HO Clarke project, which is understood to have included a \$97 million construction-plus-seven-year term loan and ancillary facilities ([PFR, 4/7](#)). The financing closed on December 31, 2019.

MUFG also arranged the roughly \$200 million construction-plus-seven year loan to finance Topaz, which priced at around 375 bp over Libor and closed on May 15, 2020 ([PFR, 5/28](#)). ■

# Cryptocurrency mining developer seals debt, equity financing

**TeraWulf**, a company that develops and owns bitcoin mining facilities powered by renewable energy, has secured debt and equity financing to expand its operations by 200 MW.

The company secured a \$123.5 million three-year senior secured term loan and issued \$76.5 million in newly issued shares of

TeraWulf's common stock to the lenders.

The bitcoin firm, which is engaged in a renewable energy cryptocurrency mining joint venture with **Talen Energy** named **Nautilus Cryptomine**, will use the funds to add 200 MW of power to its operations before the second half of next year.

"TeraWulf's ability to raise private capital underscores the attractiveness of bringing a new paradigm for cryptocurrency mining to the public markets," said Paul Prager, chairman and CEO of TeraWulf. "Due to our seasoned team's energy infrastructure expertise, we expect to be able to quickly deploy capital

as we build a mining operation bigger than any other currently public bitcoin mining company and maintain attractive bitcoin mining economics."

**Moelis & Co** acted as the placement agent on the financing, while **Paul Weiss, Rifkind, Wharton & Garrison** worked as the company's legal counsel. ■

# Solar developer receives additional funds from NEC

Utility-scale solar developer **Geenex Solar** has secured additional financing from **New Energy Capital** (NEC) to supplement a deal from 2019.

The proceeds will give Geenex the ability to fund development and operating expenses for the

company's **PJM Interconnection**-based project pipeline, which has grown significantly since the previous financing almost three years ago.

Now, the developer boasts a project pipeline of more than 8 GW of solar and energy storage

projects across the Southeast and the Midwest.

"NEC is thrilled to continue our partnership with Geenex Solar," stated **Patrick Fox**, partner at NEC. "Geenex is a best-in-class developer comprised of an outstanding team of professionals

who really understand the utility-scale solar market and what it takes to make a project successful. We look forward to supporting them in the years to come."

Last year, Geenex sold a 4.5 GW pipeline of solar projects in the PJM Interconnection to **EDF Renewables North America** ([PFR, 10/16/20](#)). ■

## FUND NEWS ●

# Ares raises \$2.2bn for climate infra fund

**Ares Management Corp** has raised around \$2.2 billion through its inaugural Ares Climate Infrastructure Partners Fund to support energy transition.

The raise, which intends to support low carbon infrastructure development, is comprised of \$1.4 billion in capital commitments and an additional \$800 million in related transaction

vehicles.

The proceeds will be spread across the renewable energy, resource and energy efficiency, energy storage, vehicle electrification and transmission sectors and across the capital structure, with 50% of the funds raised having been already deployed.

Ares' raise attracted a broad range of investors including

pension funds, sovereign wealth funds, insurance companies, ultra-high net worth individuals, family offices and funds-of-funds. It is understood that 30% of the contributions made were from new investors.

"Our climate infrastructure strategy is focused on directly originating essential clean energy investments that have

a positive impact on our communities," said **Andrew Pike**, partner and co-head of Ares Infrastructure and Power. "We have developed differentiated ESG capabilities that we believe provide meaningful value-add across the investment lifecycle. We are proud that our strategy provides the opportunity to align our clients' investment objectives with their sustainability goals." ■



# Power Finance & Risk



## **PFR Hedging & Offtake Strategies Roundtable 2021**

Sponsored by: **BRACEWELL**



## PFR HEDGING &amp; OFFTAKE STRATEGIES ROUNDTABLE 2021 ●

## PARTICIPANTS:



**Joram Cukierman**, Head of US Power, Environmental Products, Industrials Sales, **Goldman Sachs**



**Jennifer Kan**, Director of Origination, **Algonquin Power & Utilities Corp**



**Danielle Garbien**, Partner, **Bracewell**



**Joan Hutchinson**, Managing Director, Offtake Advisory, **Marathon Capital**



**Taryana Odayar**, Editor, **Power Finance & Risk** (moderator)

**Taryana Odayar, PFR:** This past year has been riddled with supply chain constraints in addition to pandemic-related hold ups and interconnection delays. How have these challenges impacted the way that hedges and offtake contracts are negotiated and structured?

**Joan Hutchinson, Marathon:** **Joan Hutchinson, Marathon:** We have seen a couple of things. One, some projects have failed or needed to renegotiate offtake agreements because of timelines being missed or *force majeure* being declared. With new contracts, I see the biggest impact in the terms and conditions shifting to push risk on to the buyers. And that's happening for a couple of reasons; it's because the risks have become greater, and it's also because the supply to

demand ratio has changed. The sellers are oversubscribed with buyers wanting energy and RECs from their projects at the same time that they're suffering from these supply chain issues. So, they're in a position to say, 'Hey, can you help me with these risks?' and that has included price increases during the negotiations of a contract.

So, if you think about a traditional RFP process, usually sellers give their best and final price and the price doesn't change unless terms change. Now, in negotiations, prices have gone up since best and finals were provided, and terms and conditions have also shifted to be more onerous to the buyers. If the sellers don't get that from the buyers they're talking to, they can get it from the next set of buyers that are keener to get the output.

**Jennifer Kan, Algonquin:** From a renewable energy developer's perspective, it's been an interesting and crazy year. There has been strong renewable energy offtake interest from large corporate commercial and industrial customers, and that demand continues to grow. We're seeing competition between C&I renewable energy customers, banks, brokers and hedge funds looking to secure long-term renewable energy through power purchase agreements on new projects to meet their sustainability goals. Customers are inquiring about wind, solar and storage projects across a wide range of power markets, including in places where their physical electricity load is not located. There is also growing awareness of the renewable industry challenges and some customer flexibility in structuring and negotiating offtake contracts.

## ● PFR HEDGING & OFFTAKE STRATEGIES ROUNDTABLE 2021

There has also been a recent run-up in natural gas prices driving up short-term power prices, and growing customer demand driving up long-term PPA prices. However, that's only partially offsetting challenges that developers are facing with increased project capital costs from modules, supply chain, EPC, interconnection and transmission delays. Many risks that exist today for developers continue to be big unknowns for renewable projects in the future.

The other interesting thing is there's greater sophistication in how renewable energy buyers select their renewable energy development partners. Developers are being measured on environmental, social and governance (ESG), so PPA price and proven development track record are only a few factors that customers consider when signing long-term renewable energy PPA contracts.

**Danielle Garbien, Bracewell:** From a legal perspective, we are seeing market participants paying closer attention to change in law and market redesign provisions where allocation of compliance costs are being negotiated in offtake arrangements and renewable PPAs. This has become increasingly common, particularly where the deal involves an area of the law or market design that's relatively unsettled in some markets, like behind-the-meter.

With those increased costs as Jennifer mentioned, developers are trying to shift the exposure to a portion of these potential costs to the buyer, which typically the buyer wouldn't take on. So, there is that tension between trying to find a middle ground where both parties are satisfied with the terms of the deal given the uncertainty in the various markets, particularly in ERCOT, as well as changes and potential changes in laws that we have been seeing throughout this year.

**Joram Cukierman, Goldman:** I'm actually fascinated by this because I sit in a risk management role. So, for us, we are always concerned about risk transfer. There are the corporate offtakers, at times vPPAs, which take on a lot of operating risk for very long periods of time and it surprises me, and I would imagine that that pendulum will swing and in a different direction again.

We saw this before a few years ago with West Texas wind where corporates took wind risk into their books and suddenly had to deal with negative prices and similar impacts. There is a lot of commodity risk that is being transferred to corporates now that are not core to their business to solve for the energy transition or ESG goals.

The other thing to note, is if you look at the current market, the rising construction costs due to supply chains and a variety of other things really gets reflected strongly in the REC market and any of these ancillary markets in addition to the power that gets bought. So, we've seen a significant move up in all these emission-related products, whether it's RECs or CCAs in California. So, I think that is where any shortfall is being made up right now.

**Hutchinson, Marathon:** I think that's right; the REC market, the carbon market, becomes the balancing act between what peoples' long-term goals are and what their near-term capability is to meet them, so it's a really interesting barometer of how well the market is balancing.

But to your point on risk, I feel that the corporate buyers are trading commodity risk for ESG risk. They have these ambitious goals, and they must meet them in order to have a license to practice, in order to continue to have customers, to continue to meet regulatory requirements or their own targets that have been set for sustainability goals, to attract and retain staff, to hold credit ratings and access low-cost debt, and to attract equity investment. And so, the risk that they're trading off is that commodity risk for the risk of having poor performance in all the areas I just mentioned.

**Cukierman, Goldman:** That is the trade-off they're making. I think there's an underestimation of what that risk may be.

**Hutchinson, Marathon:** Every once in a while, we see that come to fruition!

**Cukierman, Goldman:** Sure, I mean if you needed physical power in February, you would have been pretty unhappy with your vPPA in Texas!

**Hutchinson, Marathon:** Yes, but in some cases the vPPA settled extremely well for the C&I buyers as long as there was generation. So, they were rewarded for taking risk that time.

**Cukierman, Goldman:** As long as there was generation.

**Hutchinson, Marathon:** Right. No generation, no settlement. So, they didn't get the downside like they did with hedges.

**Odayar, PFR:** Fixed-shape hedges seem to have somewhat fallen by the wayside in the aftermath of the Texas power crisis in February. What are some tweaks that might be made to this structure, if any? Are alternative structures being pursued? And how has tax equity tried to de-risk?

**Kan, Algonquin:** Our increasing preference has been to focus on unit-contingent or as-generated PPAs versus fixed price hedges. There are option products available and provided the structured products are not overly expensive, help manage risk and fit with project economics, then we may pursue these in the future.

**Cukierman, Goldman:** I can certainly speak to some of these products. We've seen a couple of interesting developments. Tax equity has thought of their investments as a fixed-income investment with very limited operating risk and they have learned that this is just not the case. This is a traditional problem in the power generation space with people trying to turn power generation assets into fixed-income investments and that doesn't seem to work. So, there is recognition that there is some risk management that needs to take place. We've seen a consolidation of projects to developers who have trading capabilities on the side, so a lot of the Europeans and US utilities who have large businesses and can risk-manage are taking on a lot more projects.

In addition to that, there is a desire for some new products. We feel pretty comfortable with fixed-shape hedges, but I understand why developers may not. So, the new products we are seeing include a put option structure that is very similar to what we do in

## PFR HEDGING &amp; OFFTAKE STRATEGIES ROUNDTABLE 2021 ●

the fossil power universe, which is creating a floor power price. The developer buys the put at NTP and the premium becomes part of the overall financing package. It's usually structured to provide tax equity with a minimum revenue amount so that they can underwrite their project. An incremental benefit of the put product is that developers who are developing because they're bullish on the market get all the merchant upside from the project. The downside is that these products are not cheap.

The other product that a lot of clients have asked us about and that we've spent a fair amount of time on, and this is really more in the context of restructuring existing hedges, are these end-of-month settlement products. So, instead of taking power into the delivery month, you settle them the same way that natural gas on exchanges settles, like two days prior to the delivery month, and then

you have the benefit on a forward basis your exposure to commodity price risk is protected, but in the delivery month itself you don't have some kind of obligation on the other side that you need to deliver on.

The benefit of that structure is it slots in fairly neatly without any kind of real cost when you convert existing fixed-shape hedges into that product. The downside is that the market is not particularly liquid and there is no kind of obvious index you can use like you can in natural gas. But those are those are two commodity hedge products that we see a lot of interest in.

And the other thing we've seen is a slightly different solution, which is a much stronger interest of corporates in participating as tax equity providers and taking the RECs and figuring out some kind of solution for the energy with a third-party like ourselves. Basically, no longer solving the ESG puzzle for the cor-

porate through the energy hedge, but rather through tax equity and RECs.

**Garbien, Bracewell:** We have seen a greater interest in proxy revenue swaps as they relate to wind projects and more recently solar projects. We are also seeing some projects bifurcate the projected output of a facility where a portion of the energy is sold under a vPPA at a hub price and the remainder is sold behind-the-meter or partially merchant.

**Hutchinson, Marathon:** I would agree with everything that's being said. I thought that was really well put. The other two things I would say, and this has been a longer-term trend, but we have been seeing some comfort with merchant projects, especially going through financing there's some potential upside that developers do want and so we have seen projects about 70-80% contracted be



Attorney Advertising

## We Know Energy®

Bracewell LLP is among the leading law firms in structured and standardized energy and commodities transactions involving both physical and financial products including power, gas, oil, capacity, renewables credits, ancillary services, and other related products.

Our team advises on structuring complex supply, offtake and hedging transactions in connection with thermal and renewable energy facilities. In addition, we advise clients on energy storage arrangements; carbon capture and sequestration projects, renewable energy development projects, credit facilities for retail and wholesale energy contracts and prepaid natural gas and electricity transactions.

# BRACEWELL

bracewell.com



## ● PFR HEDGING & OFFTAKE STRATEGIES ROUNDTABLE 2021

financed. Now, that's when the percent contracted is on an as-generated basis and not contracted with put options structures.

And then the last thing I would add is that some big balance sheet players have been willing to do a shorter-term hedge with an option to cover the balance of the tax equity duration, but they've been willing to indemnify or to securitize any losses that would flow through to tax equity using their balance sheet. So, they're basically putting their money where their mouth is and protecting the other participants in the project in a way that is great if you are a big, well-funded company.

**Odayar, PFR:** We could potentially see an upheaval in the way that renewable energy tax credits are doled out if Build Back Better passes in Congress. The package includes expansions and extensions to the ITC and PTC, as well as a direct-pay feature in lieu of tax equity. If passed, how might this change the way projects are financed and contracted?

**Garbien, Bracewell:** If the bill passes, it could be very advantageous for the renewable markets and energy transition initiatives. With increased opportunities in the tax equity market and potential direct-pay feature, developers should be better positioned to finance projects and provide more opportunities for hedge providers and offtakers.

**Odayar, PFR:** Jennifer, from a developer's perspective, what are your thoughts?

**Kan, Algonquin:** As developers, we believe Build Back Better will be valuable in helping transition the electricity grid to renewables in a reasonable timeframe. The PTC and ITC and direct-pay provisions can get a little complicated because there's multiple financial levers to consider, however we're hopeful that the final proposal when passed will help alleviate pressure around securing third-party tax equity on renewable energy projects.

**Odayar, PFR:** There are also some stipulations tied to the way the tax credits would be dished out in terms of domestic labor and equipment requirements. Any

thoughts around how that might impact financings?

**Hutchinson, Marathon:** I'll start with some comments on the broad question. There's a lot of competition for tax equity dollars. So, when you think about offshore wind, carbon sequestration, all of these demand tax equity investments as well and they're incredibly large. We've seen over the last handful of years that the market has been quite tight and it's about to double. So, to the extent that we can have direct-pay, that helps solve the problem of a limited supply of tax equity.

And, as has been mentioned, we have seen corporate customers come into the market to do tax equity plus RECs. Marathon advised Nestlé on that structure and it's a really nice structure for them plus gives them the ability to have the RECs for the accounting that's required for their targets. So, we're doing the best we can within the tax equity markets as they're structured now, but direct-pay takes away the bottleneck.

It will also be interesting because it should allow structures that are now restricted by tax equity's interest in them to be placed on projects. This may or may not be good from a risk perspective. People may be bolder without tax equity's requirements needing to be met, but it should definitely enhance the ability to get projects built, so overall that could be good.

I'm not sure what to say about the terms and conditions on Build Back Better. It's going to really matter on the details. I think the labor will be mostly a cost issue so long as we have the supply of labor to meet the requirements, and as for the requirement to have components from US manufacturing, it's a supply-demand question and maybe cost as well. Any constraints will flow right through to the price of power and to the timing of development.

**Cukierman, Goldman:** On our desk, we are agnostic to the tax environment and tend to try to solve for what our clients need. It will be what it will be. The reality is there's a huge amount of capital that is looking to invest in this space and to everyone's points, I just think that that capital is going to find its way into the market somehow.

So, the constraint that is tax equity today is a real constraint, and I would imagine that no matter what we're seeing and by having higher prices for both RECs and the power markets, if you really want to accelerate the build out of renewables to the aspirational levels, then you're going to have to find solutions outside of the tax equity market. The traditional direct-pay construct will allow you to replicate the structures we saw when we built out natural gas generation in the mid-2000s ride, which is kind of project finance constructs where the risk really sits with the lenders rather than the tax equity and they tend to have a much shorter duration of risk on. So, I think it would be perceived as more risk, but it's just going to be, in my opinion, shorter-duration risk.

I think we took a little bit of a step back in renewable development in 2021, but there's so much money looking to invest here that we will figure out a way regardless of tax regime, Build Back Better, etc.

**Odayar, PFR:** And Joram, have you seen any new entrants on the energy trading side who are expanding the types of structured products available or who have been pushing the limits over this past year?

**Cukierman, Goldman:** We've certainly seen new entrants in the environmental products space. We've not seen a huge amount of new entrants in the energy risk space. There is more risk-taking by balance sheet renewable developers who just have to manage risk. I think there's a lot of activity in the environmental space, whether that's REC trading on the back of what we're seeing or carbon trading. Joan brought this up at the beginning, but there's somewhat of a convergence of renewable energy focused into this broader and energy transition and decarbonization focus. We saw that institutional investors were very focused on that and we're seeing hedge funds and private equity firms all looking to invest in this space as well.

**Odayar, PFR:** ESG consciousness has certainly grown significantly over the last couple of years. Danielle, how would you say this has moved the needle in the ways that corporate offtakers do business?

## PFR HEDGING &amp; OFFTAKE STRATEGIES ROUNDTABLE 2021 ●

**Garbien, Bracewell:** We're seeing a significant uptick in the corporate PPAs. Many of the large oil and gas players with ESG requirements are getting more involved with the development and operations of renewable assets where they have the means to invest in those kinds of projects. So, certainly we're seeing an increase in development from various sectors that weren't traditionally in the market.

**Kan, Algonquin:** Corporate offtakers are demanding their partners have ESG performance that aligns with their ESG values. Algonquin has partnered with corporate, municipal, commercial and industrial energy customers to achieve their ESG and sustainability goals. I'm very proud to work for Algonquin, a company that makes ESG a strategic priority. Algonquin Power & Utilities Corp has declared a net-zero by 2050 target for scope 1 and 2 emissions. We've exceeded our goal of greater than 30% women in leadership, with 40% women on the executive team, and 33% women in the total workforce. Algonquin is recognized for ESG leadership through its MSCI AA leader rating, **S&P Global** evaluation, and Bloomberg Gender Equality Index. The board and senior management takes ESG seriously in the overall compensation model.

**Odayar, PFR:** When it comes to financing merchant renewable energy projects, how do equity and debt look at the re-contracting period? How much value is ascribed to the merchant tail after the contract expires?

**Hutchinson, Marathon:** We see such an incredible infusion of equity looking for a home in the US market, whether that is European or Asian companies wanting to establish themselves and have platforms here, or whether it's development companies that are looking to buy projects. The demand is incredible. We've seen **Apex** and other firms raise equity at great terms and conditions. So, there is no lack of equity for investment in projects and no lack of equity for investment in platforms.

Some of these companies that are looking to invest have started to invest in pipelines.

They're looking at DG, they're looking at ancillary services to the renewable energy space because there's so much money that they can't put it directly into the renewable energy space.

Debt has been pretty consistent. When we look at financing projects, one thing that we've seen move a little bit is that often debt was sized to the contract period, and now we see debt sized to the contracted period plus a little bit of merchant duration. You still will have a term that's shorter than the amortization of the debt, so you might have a seven-year term but 10- to 12-years and more on the debt. Then, of course, the linchpin tends to be the tax equity availability. Tax equity financial terms and conditions haven't changed too much over time – it's more the availability and the protections that are put into place. Like when can you do cash sweeps and so on to manage the risk that tax equity feels is in their projects.

I would like to emphasize that what Jen said is critical to the marketplace in that if you're a developer, it's not enough just to say, 'This is my project, these are my milestones.' You have to show that what you're doing with your projects meets the partners' objectives, so it's developing projects with ESG in mind, social justice in mind. We advise all our clients that you can't walk into a meeting with a corporate and just talk about the engineering aspects of your project. You have to talk about what good your project is doing inside that community. And then to Jen's point, that broadens not just your projects, but perhaps your entire corporation to show that you're in alignment with the entities that are buying your power.

**Cukierman, Goldman:** It's an interesting conundrum because we will have some corporates who have made decisions to contract for an asset through their sustainability group, but the Treasury department then gets tasked with risk-managing the asset. Those groups have very different concerns, so there's certainly a push and pull that is pretty unique and pretty new.

**Odayar, PFR:** There are various hedge products that have not been traded very often in certain markets like congestion

revenue rights as well as deal-contingent swaps. Might power trading desks see an uptick in any of these in the near future?

**Cukierman, Goldman:** Our participation in California congestion products is relatively new, but we are not entirely new to the risks as we've traded financial transmission rights for years in ERCOT and PJM. It's a complicated product in the context of long-dated renewable transactions because most of these congestion products really don't trade out further than three years or however long the longest auction for transmission is in any individual market.

And they're very, very complicated to understand, so I would be very hesitant pitching a transaction like that to a corporate customer because I think there's a sophistication of understanding required about power markets, which would require us to do a lot of educating to make sure that people know what they're entering into.

As for deal-contingent swaps, that is a common product in fixed-income, but I prefer not to use those. We've spent a fair amount of time thinking about it and I understand that at some point you would like to pin down a number so that you can pin down your other numbers. But the reality is, power is the least liquid and most volatile product, and the most complicated problem in renewables development. So, if you ask a commodity hedge provider to lock that price and make it contingent, I'm sure we can come up with a price, but I'm not sure that's the most efficient number to lock down because by definition that's going to be the most expensive product to lock down. But we have been asked about it and we are very hesitant.

**Odayar, PFR:** Let's talk about a product that is fairly popular and has been around for a while – gas netbacks. They offer protection and maintain positive margins, but because the size of the margin can shrink depending on the price of gas, it doesn't really provide a fixed margin to lever against. What does the future of hedging for quasi-merchant gas-fired projects look like?

**Garbien, Bracewell:** There continues to be

## ● PFR HEDGING & OFFTAKE STRATEGIES ROUNDTABLE 2021

interest in heat rate call options with a combination of a revenue put. Depending on the client, the way they balance out those risks, it varies based on individual portfolios.

**Cukierman, Goldman:** Danielle, the HRCO is the only product that has been around longer than I have! The gas netback structure was always very attractive as a story around gas production being co-located with gas-fired generation and prices being very low. The product as a whole has always been a very complicated product to understand, and you have to create boundaries around prices to make sure that the product works correctly. So, I haven't seen a whole lot of new activity. We still see a lot of appetite in revenue puts and still see principally an appetite in replacing both revenue points and gas netback transactions with HRCOs.

**Odayar, PFR:** Moving on to a different generation profile, energy storage, how do you think about hedging these assets and providing revenue contracts so that they get financed?

**Garbien, Bracewell:** We have seen a lot of interest within the energy storage sector to structure transactions outside of the traditional tolling and capacity arrangements that energy storage developers have entered into in the past along with an increase in financing opportunities for these projects. Rather than a toll or capacity arrangement, some developers are considering revenue puts and related products which leaves merchant optionality.

The market has grown more comfortable with energy storage in general and it's capabilities and the technology, such that the financing and offtake arrangements for storage projects – whether co-located or stand-alone – are becoming more fungible.

**Odayar, PFR:** Jennifer, what are the prospects of using combinations of hedges for solar or solar-plus-storage projects, similar to how large wind projects can obtain a traditional PPA combined with a corporate PPA or proxy revenue swap?

**Kan, Algonquin:** Solar projects have the same hedging and PPA contracting options

as wind projects. For storage projects, we're exploring tolling arrangements or partnering with customers to share in the profit from energy revenue and ancillary services. In some markets like California, storage helps manage the extreme volatility in prices where there is a lot of renewable energy with intermittent generation. We are also looking at developing projects where wind, solar and battery are co-located so that it can provide 24/7 renewable energy load-matching for customers in the future.

**Odayar, PFR:** There is a dizzying array of these various types of structured products. Volume firming agreements (VFAs), PPA settlement guarantees, solar revenue puts, proxy revenue swaps with the insurer as the swap counterparty, proxy PPAs, and so on. Are these all considered fairly established products now or are they still evolving?

**Kan, Algonquin:** I'm a big fan of simplifying customer offtake contracts during this renewable energy transition and fostering

## Power Finance & Risk

# Executive Roundtables

The *PFR* Editorial Team hosts monthly deep-dive discussions on hot-button issues & challenges in energy infrastructure development and project finance.

Roundtable discussions take place virtually and at *PFR*'s offices in midtown Manhattan; they are recorded, transcribed, and published online, in front of the pay wall, as well as in a special supplement to the *PFR WEEKLY*.

Roundtable reports are 8-12 pages in length, co-branded with the roundtable sponsors and aggressively promoted to the *PFR* audience.

**For more information on *PFR* Roundtables, please contact:**

**Taryana Odayar** Editor – Power Finance & Risk

• +1 212.224.3258 • [taryana.odayar@PowerFinanceRisk.com](mailto:taryana.odayar@PowerFinanceRisk.com)





## PFR HEDGING &amp; OFFTAKE STRATEGIES ROUNDTABLE 2021 ●

strong customer relationships. Unbundling energy and renewable energy certificates, while layering in lots of structured products, hasn't been required with strong customer demand for PPAs in the market. Behind the scenes from a trading perspective, we seek to layer in risk management products including swaps, options and congestion management products.

**Cukierman, Goldman:** It's an interesting problem, because if you think about the renewable space in particular, offtake arrangements that are really to satisfy tax equity have been somewhere around north of 10 years. And the interesting thing to us has always been that our market changes so much over the course of 10 years, that the ability to predict what works even five years from now is really difficult. And 10 years from now is almost impossible. So, simple is always better.

That said, when it comes to renewable energy transactions, no two transactions that we've done have looked alike. In the end, there's always some reason that you need to create some angle to make the deal work. My experience has been that all these contracts got restructured over time because the market changes and you must be aware of that as you go in to contract. There will be some event, whether it's a weather event or an operational event or the tax equity wants to get out of the deal or whatever it is, that requires a complete renegotiation of a deal.

**Garbien, Bracewell:** From my perspective, I have seen clients consider volume firming agreements in connection with entering into a vPPA to try to cancel out some of the risk, but I haven't seen one go forward in the sense that the economics aligned with entering into a VFA with the vPPA.

**Hutchinson, Marathon:** I think the problem with renewable energy is that it's variable energy and so with that level of uncertainty, when you try to put a swap or an option on it, that premium becomes incredibly high because you're not just dealing with price volatility, but volume volatility on an hourly basis and that granularity matters. I think that **RESurety** and **Allianz** did a good job finding a place where they could play and provide a revenue guarantee. It changes your

P50 expectations and saves you from some of the downside. It does have a cost to it, but it's very complicated to structure something that covers the volume variability in such a volatile price market.

**Cukierman, Goldman:** From what I understand, this is also a proxy. So, what is an interesting problem with this product is that the operational risk component of it is not transferred. If you think about a Uri-like event, you're settling against what your generation was supposed to be based on the model, not what it actually was. So, you're not reducing operational risk, you're merely dealing with a subset of the risk that you have.

**Hutchinson, Marathon:** Price and volume are covered, but the operation risk lives with the developer or the owner of the asset. So, that's exactly right. If the wind was blowing and your operations stopped, you're still measured on the wind blowing.

**Odayar, PFR:** Basis differential hedges are also important. Depending on the location of the project, the basis differential can be a significant risk, so being able to hedge against that would be valuable. Are you seeing such products in the market? Are they a good decision?

**Garbien, Bracewell:** In certain PPAs, I have seen the parties agree to share the basis risk between the node and the hub, both the upside and downside of the differentials. Formulas vary depending on the structure of the transaction, but the risk sharing is definitely negotiated.

**Hutchinson, Marathon:** It goes back to it being more of a seller's market. Sellers have had to take the basis risk. Now they're saying that the basis risk can be quite hard to get financed as tax equity is more sensitive to it, and they're in a position where they can negotiate with buyers to share that risk, and so that sharing is happening. If a project owner wants to contract with a third party to take basis risk, they have to pay them to take that risk and it's a really high cost because it's a variable resource. You don't know when it's going to generate and so it's a very complex analysis with respect to price. Often, the best

thing to do is for the projects to manage basis risk themselves, and hence we see storage in some projects because managing basis risk is one of their advantages.

**Kan, Algonquin:** As a renewable energy developer, we evaluate the basis risk of projects upfront. We look at transmission congestion risk, consider the available ISO-traded congestion products, and put on spread trades as required. We seek to actively manage the congestion risk with tradeable products and monitor the differential between the project's point of interconnection and the settlement hub.

**Cukierman, Goldman:** We generally advise our counterparties – and I'm not talking about renewable project counterparties, but all of our power counterparties – to hedge with the liquid product that is most closely related to the location where power is generated. If you have a West Texas Panhandle project, you're doing that because you want a higher price point, which generates better returns, but you are exchanging that for taking significantly more risk and that risk needs to be managed. This is a classic problem in power generation as a whole and is not new to the renewable space at all. It works until it doesn't, and when it doesn't, the tears are usually pretty big.

To me, the projects that do best are the ones that are selected carefully, that are in good locations, connected to large transmission lines and the economics allow them to take some of this risk in-house. You don't need to add incremental risk to make the economics work because those risks can very much outweigh the results over time, especially, for example, on a 10-year deal in Texas where the transmission system and basis market has been all over the place. So, in my opinion, it's not an advisable strategy.

**Kan, Algonquin:** I mean, ideally you would have generation located right where the load is but that often doesn't occur, so I'd be interested to know if there are any products to manage risk around line losses?

**Cukierman, Goldman:** FTRs, CRRs and the like don't address that. They only deal with congestion. ■

## ● LATIN AMERICA MERGERS & ACQUISITIONS

### Canadian Solar offloads Brazilian project

**Canadian Solar** has sold a 635 MW (DC) solar project in Brazil to renewable energy firm **VTRM Energia Participações**.

The asset changing hands is the Jaiba V project in the state of Minas Gerais, which is expected to be brought online in 2023. Construction is scheduled to begin in 2022.

The project is selling 40% of its output under long-term power purchase agreements, while the rest will be sold in the free market, noted Canadian Solar in a statement on December 14.

"We are pleased to partner with VTRM in this transaction for the Jaiba V project, which will meaningfully contribute towards Brazil's goal of obtaining 23% of its energy from non-hydro renewable energy sources by 2030," said Canadian Solar's CEO, **Dr. Shawn Qu**. "With the completion of this sale, Canadian Solar will have successfully monetized 1.6 GWp of utility-scale solar projects in Brazil and will continue to execute and monetize its remaining pipeline of more than 2.5 GWp of high-quality, contracted solar projects."

The project will be part of VTRM's 1.9 GW (DC) pipeline in hydro and solar projects. VTRM is a joint venture between **Votorantim** and **CPP Investments**.

Canadian Solar is becoming increasingly active in the country, having closed a debt package with **BTG Pactual** and **Itaú BBA** for a Brazilian solar portfolio over the summer ([PFR, 7/27](#)). ■

### Sponsor to sell Chilean renewable platform

A sponsor has launched the sale of a portfolio company in Chile, which owns 332 MW across operational wind farms.

**Actis** received binding offers on December 10 for a 100% stake of its portfolio company **Aela Energia** in Chile. The sponsor owns a 60% interest in the platform, while **Mainstream Renewable Power** holds the remaining 40%.

**Credit Suisse** is understood to be arranging the process, which

has three front runners, notes a source close to the process. Chilean independent power producer **Colbun** and **China Three Gorges Corp** are two of those bidders, *PFR* understands. The sponsor is expected to pick a preferred bidder before the end of the year.

Aela owns 332 MW across three wind farms, namely:

- the 33 MW Cuel asset in Biobio
- the 170 MW Sarco project in

Atacama

- the 129 MW Aurora facility in Los Lagos

The Cuel project has been operational since 2014, while construction on the other two wrapped up in 2019.

Established in 2013, the platform aimed to develop over 600 MW of renewable projects, both wind and solar.

Actis and Credit Suisse declined to comment. ■

### MPC, Leclanche partner up for St Kitts project

**MPC Energy Solutions** (MPCES) has reached a deal with battery storage developer **Leclanche** to build a solar-plus-storage project in St Kitts.

Leclanche secured financing in 2020 for the 35.7 MW St Kitts solar project, which comes with a 14.8 MW/ 45.7 MWh battery storage component. The sponsor began construction on the facility,

located in the island's Basseterre Valley, shortly after ([PFR, 12/16/20](#)).

MPCES purchased a 40% stake in the holding company that owns the \$74 million asset, with Leclanche owning the remaining 60% interest. MPCES agreed to invest up to \$17 million into the project.

The project is being built under

an engineering, procurement and construction contract by Leclanche, and is selling its output under a 20-year dollar-denominated power purchase agreement with the island's only utility **St Kitts Electric Co**.

The project is expected to provide between 25% and 30% of the country's power needs, replacing diesel-based sources of energy. ■

### Chilean, Uruguayan duo partner up for green hydrogen

Chilean firm **Empresas Gasco** has partnered up with Uruguayan firm **Hynewgen** to develop green hydrogen facilities in Chile.

The parties have established a new venture called **Hy2All**, un-

der which they will develop, finance, build, operate and maintain one or more green hydrogen projects in the South American country.

The Uruguayan partner, Hynewgen, was previously called **Am-**

**pres**.

Green hydrogen development is catching the eye of many sponsors in Chile, with firms such as **Total Eren**, **Solek** and **Statkraft** clinching deals to invest in the technology ([PFR, 2/12](#)). ■

### Details emerge on ISA's bond issuance

Further details have emerged on Colombian transmission firm **Interconexión Eléctrica** (ISA)'s first bond issuance in the international capital markets.

The sponsor issued a \$330 million 12-year financing on November 18, with the notes listed on

the Singapore Stock Exchange. The deal closed on November 26, as *PFR* previously reported ([PFR, 12/1](#)).

**BofA Securities** and **HSBC Securities** were the joint bookrunners and initial purchasers of the notes, which had an interest rate

of 3.825%.

ISA is using the proceeds of the bonds to repay its debt, aiming to diversify its sources of financing by 2030.

Legal counsel included:

- **Cuatrecasas** to ISA
- **Clifford Chance** to the banks ■

## LATIN AMERICA PROJECT FINANCE ●

# Consortium closes gas-fired asset debt in Panama

**◀FROM PAGE 1** The Gatun facility, previously known as Telfers, comprises a combined-cycle gas-fired facility and an LNG jetty with a floating storage regasification unit, located on the island of Telfers.

The project is owned by an InterEnergy-led consortium called **Group Energy Gas Panama**, which holds a 51% stake, with **AES Panama** and the Panamanian government holding a 24% and 25% interest, respectively.

The legal advisers on the deal include:

- **Paul Hastings** – international to the lenders
- **Icaza, González-Ruiz & Alemán** – local to the lenders
- **Shearman & Sterling** – international to the lenders
- **Morgan & Morgan** – local to the lenders

The facility will sell the majority of its output to three local distribution companies – **Em-**

**presa de Distribución Eléctrica Metro-Oeste, Empresa de Distribución Eléctrica Chiriquí** and **Elektra Noreste** – under a dollar-denominated 20-year power purchase agreement. A portion of the power will be sold in the spot market.

The deal has been in the works since 2019, but the banks did not move forward with the financing until the summer of 2021, when the project changed hands and

went to InterEnergy-led consortium. The seller was **LNG Group Panama**, which owned the project through its **Panama NG Power** subsidiary. It secured the PPA for the facility in 2013.

The financing for the project was shelved in 2014, coming back to the market in 2017 for a brief period and then being put to sleep again until two years ago, when the owner reached out to potential investors. ■

## Ecuador launches power tender trio

Ecuador's **Ministry of Energy and Non-Renewable Natural Resources** has launched three procurement processes for renewables, gas-fired and transmission projects in the country, which were announced in September.

The tenders are for the construction, operation and maintenance of projects expected to require a total investment of \$1,861 million, as previously reported by *PFR* ([PFR, 9/21](#)). Al-

though the ministry announced the tenders on September 20, it did not launch them until December 10.

Technical offers for the three tenders are due in September, 2022, while economic offers must be submitted by November of that year. The projects will be awarded following the bidding in December.

The first process is for 500 MW across renewable assets, including solar, wind, small hydro and

biomass projects. Developers will bid with their own projects, totaling \$875 million. The assets will be due online by 2024.

The second tender is for a \$600 million gas-fired asset with a capacity of 400 MW, which will be awarded a 25-year concession. The facility will inject its output into the grid to supply the city of Guayaquil. Given the location, natural gas can be imported from the ports of Posorja in Guayas and Monteverde in Santa Elena,

but it will be the winner's responsibility to secure that gas supply. The gas-fired unit is expected to start commercial operations by 2024.

The third and final process is for a transmission project in the provinces of Sucumbios and Orellana in northern Ecuador, which will be used to power the oil industry in the area. The \$386 million asset will comprise 290 km (180.2 miles) of transmission lines ranging from 230 kV, 138 kV and 69 kV. The winner will operate the asset for 30 years, starting in 2026. ■

## Bridge financing for Colombian asset nears close

Two international banks are nearing close on a bridge debt package for a roughly 200 MW gas-fired power plant in Colombia.

**Sumitomo Mitsui Banking Corp** and **Santander** expect to close an under \$90 million short-term financing before the end of the year for **Celsia's** 198.7 MW **Tesorito I** gas-fired project in the department of Córdoba.

The loan will bridge into a second package, which is yet to be arranged but expects to range between \$140 million and \$150 million in size. The second US dollar-denominated financing could be a loan or a private place-

ment, notes a source close to the deal.

The banks started working with Celsia in spring of this year to raise the debt for the asset ([PFR, 5/12](#)).

Celsia holds the majority stake in the project through its subsidiary **Empresa Energía del Pacífico** (EPSA). The sponsor acquired its 57.5% interest in May 2019, for \$6 million, from **Proeléctrica de San Andrés**, which supplies power to the San Andrés islands in the Caribbean.

Proeléctrica still holds a 32.5% interest in the plant, while oil

company **Canacol Energy** holds the remaining 10% stake. The plant will receive natural gas from Canacol's fields in Córdoba.

Celsia initially filed environmental paperwork for the project on March 20, 2020 ([PFR, 3/27](#)). The developer had estimated that the asset would require an investment of Ps435 billion (\$107.23 million at the time), according to paperwork filed with Colombia's **National Authority of Environmental Permits** (ANLA).

### Capacity contracts

The project was awarded 20-year Firm Energy Obligations

(*Obligaciones de Energía Firme* or OEFs) during Colombia's March 2019 grid reliability auction. The contracts are for 1.665 GWh per year.

Under these capacity contracts, the plant must be available to provide power to the grid to earn a fixed dollar-denominated price per kilowatt-hour. The mechanism was designed in 2006 to ensure reliable power supply during periods of drought, such as those caused by the El Niño phenomenon.

The OEFs for Tesorito will come into force on December 1, 2022. ■



## ● PEOPLE & FIRMS

# Credit Suisse snags new head of power and renewables from BofA

**Credit Suisse** has hired a new global head of power and renewable energy investment banking from rival **Bank of America** in New York.

**Mike Dunne** is set to take up his new role in March. He had been with BofA and predecessor firm **Merrill Lynch** since 2002 and was promoted to managing director in 2012. During that time, he has led on M&A transactions with a total combined value in excess of \$100 billion.

At Credit Suisse, he will report to **Rob**

**Santangelo** and **Randy Bayless**, the co-heads of Credit Suisse's global energy and infrastructure (GEI) investment banking group. Dunne's appointment reinforces a Credit Suisse franchise that was hit in summer by a wave of senior defections, including the former heads of the GEI group, **Jonathon Kaufman** and **Tom Greenberg**, global head of renewables **Ted Michaels** and vice-chairman of power, utilities and infrastructure **Craig Edgar** ([PFR, 8/13](#)).

## White & Case adds partner from Jones Day

Law firm **White & Case** has hired a partner from **Jones Day** to grow its global project development and finance practice.

**Serena Rwejuna** joins the law firm's Washington DC office after spending the last three years as an associate at Jones Day, where she worked on energy regulatory matters.

Rwejuna is bringing with her extensive experience advising utilities, generators, pipelines, natural gas distribution companies on compliance with **Federal Energy Regulatory Commission** (FERC) regulations. She has also worked with clients on project development, mergers and acquisitions, and administrative litigation and dispute resolution.

"Serena is an excellent addition to our global team," said **Mark Castillo-Berenaus**, global head of White & Case's project development and finance practice. "As energy companies around the world are focused on energy transition, we are expanding our depth in this sector, including building our resources in the renewable energy sector. Serena brings the ideal skills to serve our clients' complex energy regulatory needs in the US and around the world."

Rwejuna began her career in 2013 when she joined **Bracewell** as an attorney, focusing her practice on energy regulation and public policy matter. In 2018 she left the firm to join Jones Day. ■

## Machado promotes Machado

Brazilian law firm **Machado Meyer** has promoted **Paulo Machado** to partner in its infrastructure practice.

Machado specializes in project finance and structuring, as well as regulatory issues in the Brazilian electricity sector.

He works across all stages of infrastructure development with a particular focus on the negotiation of financing and EPC contracts. Machado's experience in-

cludes work on energy and renewables, as well as oil & gas and highways.

He has been at Machado Meyer since 2007, initially as an intern and most recently as a senior associate. He has also worked for **Mattos Filho** and **Milbank**, the latter as an international associate based in Tokyo.

Machado is based in Machado Meyer's São Paulo office. ■

## ● NEWS IN BRIEF

### ● M&A

#### AES CLEAN ENERGY CLOSES NEW YORK WIND PURCHASE

**AES Clean Energy**, a renewable energy platform co-owned by **AES Corp** and **Alberta Investment Management Corp** (AIMCo), has closed the purchase of a portfolio of wind projects from **The Carlyle Group**. The deal, which was agreed upon in August ([PFR, 8/18](#)), will see AES Clean Energy buy the 612 MW Valcour Wind portfolio, spread across New York state.

### ● LATIN AMERICA

#### IDB AND EPM IN TALKS OVER ITUANGO

Colombia's **Empresas Publicas de Medellin** is in talks with **IDB Invest** to determine the terms of the prepayment of the debt covering the sponsor's 2.4 GW Ituango hydro project in northern Colombia. The IDB has agreed to a prepayment of the financing, given the uncertainty of the "next milestones agreed in the loan contract," noted the bank in a statement.

#### CHILE AWARDS TRANSMISSION TENDER TO ISA-LED CONSORTIUM

Chile's **National Electric Coordinator** has officially awarded the tender for the Kimal-Lo Aguirre transmission project, connecting the northern and central regions of Chile's grid, to a consortium led by Colombia's **Interconexión Eléctrica** (ISA). The **Yalique** group is formed by ISA, Chile's **Transelec**, and China's **Southern Power Grid International**.

## ● PEOPLE & FIRMS

#### ECUADOREAN LAW FIRMS ANNOUNCE MERGER

Three Ecuadorean law firms have announced a merger which aims to create the country's largest project finance practice. The new outfit – **Flor Bustamante Pizarro Hurtado** (FBPH) – combines: **Flor & Hurtado**, **PABRALAW**, **Bustamante & Bustamante** (energy and natural resources teams).

#### FORTRESS MD DUO HEAD TO HPS INVESTMENTS

A pair of managing directors who founded **Fortress Investment Group's** energy and power debt group have left the financial services firm to join **HPS Investment Partners**. **Stephen Petricone** and **Tony Shizari**, who have worked as co-heads of Fortress's energy and power credit group for the last 14 years, joined HPS Investments as managing directors on December 1.

*Extended versions of these stories are available to subscribers at [www.powerfinancerisk.com](http://www.powerfinancerisk.com).*