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Power Finance & Risk

Exclusive Insight on Power M&A and Project Financing

MERGERS & ACQUISITIONS

AEP markets operational hydro fleet

American Electric Power has hired **Scotiabank** to sell seven PJM hydro plants totaling around 70 MW. Page 5

CASE STUDY

Hamilton Projects Acquiror, Pennsylvania

How **The Carlyle Group** reopened the term loan B market with a $1 billion financing for a pair of **Panda Power Funds** CCGTs. Page 9

LATIN AMERICA

Mainstream nears close for Huemul

Mainstream Renewable Power expects to finance its 730 MW Huemul renewables portfolio this month. Page 11

Q2 league tables: Lenders overcome Covid slowdown

Shravan Bhat

The unusual market dynamics created by the pandemic have thrown some interesting names into the rankings of leading power and renewables project finance lead arrangers in North America for the first half of 2020.

While some of the top lenders are no surprise — with longstanding front-runner **MUFG** reclaiming its number one spot from **KeyBank** and term loan B titan **Morgan Stanley** easing into second place — other enterprising banks have capitalized on Covid-related disruption to muscle their way into the rankings (see table below).

Some balance sheet lenders are initially said to have pulled back from the market due to Covid uncertainty and — though many of them have since returned — banks like **CoBank** and **HSBC** were ready and willing to fill the gap, chalking up PAGE 10 »

H1 2020 North America power & renewables project finance MLAs

Rank	Lender	Total	Deals	Market Share (deal value)
1	MUFG	$1,440 million	15	11 %
2	Morgan Stanley	$915 million	4	7 %
3	HSBC	$773 million	10	6 %
4	CoBank	$727 million	11	6 %
5	KeyBank	$652 million	14	5 %
6	BNP Paribas	$619 million	4	5 %
7	National Bank of Canada	$603 million	8	5 %
8	Rabobank	$577 million	8	4 %
9	AMP Capital	$525 million	1	4 %
10	SMBC	$489 million	8	4 %

Source: IJGlobal

Apollo backs Italian-owned US offshore wind developer

Taryana Odayar

Apollo Global Management has made a combined $265 million equity and convertible debt investment in Italian-owned offshore wind developer **US Wind** as part of a strategic partnership to finance a wind project off the coast of Ocean City, Maryland.

Through the partnership, Apollo will participate in the build out of an 80,000 acre area leased from the **Bureau of Ocean Energy Management** (BOEM).

The so-called Maryland Wind Energy Area is located about 10 to 30 miles off the coast and has the potential to host about 1.3 GW of offshore wind generation.

The 270 MW first phase of the $1.5 billion Mary- PAGE 6 »

GenOn to launch financing of California CCGT duo

Taryana Odayar

GenOn Energy has selected leads for the refinancing of a pair of gas-fired assets in California, which it plans to launch this week.

The assets being refinanced are the 1,516 MW Ormond Beach facility in Oxnard and the 54 MW Ellwood facility in Goleta.

The bookrunners on the deal are:

- **CIT Bank**
- **Investec** PAGE 8 »

Sponsors look to refi Peruvian solar project pair

Carmen Arroyo

Spanish developer **Solarpack Corporación Tecnológica** and French investment fund manager **Ardian** are seeking to refinance a pair of contracted solar projects totaling 43.4 MW in Peru.

The assets are the 22.2 MW Tacna solar project in the department of Tacna and the 21.2 MW Panamericana solar project in the department of Moquegua. Ardian acquired a 49% PAGE 11 »

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

IN THIS ISSUE

PPA PULSE

CenterPoint subsidiary issues MISO RFP

CenterPoint Energy's Indiana-based electric and gas utility, **Southern Indiana Gas and Electric Co** (SIGECO), is seeking 700 MW to 1,000 MW of solar or solar-plus-storage and 300 MW of wind generation in the Midcontinent Independent System Operator (MISO) market.

The request for proposals is open to both sales of assets and power purchase agreements to meet the utility's needs for the 2023/2024 MISO planning year.

Projects must be able to deliver into MISO Local Resource Zone 6. Wind and standalone solar projects must have a minimum capacity of 50 MW while paired solar-plus-storage projects must generate at least 12.5 MW and store 50 MWh or more.

PARANÁ PPAS

Companhia Paranaense de Energia (Copel) has signed PPAs with greenfield wind and solar projects totaling 595 MW in Brazil.

The 13-year contracts start in January 2023. The wind projects have a total capacity of 184 MW and the solar projects 411 MW. ■

CORRECTION

Crescent Dunes restructuring deal reached with DOE

An article that ran under this headline on the front page of *PFR*, August 10, 2020, incorrectly listed **Houlihan Lokey** as the restructuring adviser on the Chapter 11 restructuring of the 110 MW Crescent Dunes concentrated solar project in Nevada, of instead of **FTI Consulting**. Houlihan Lokey was in fact retained as valuation expert.

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

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

GENERATION AUCTION & SALE CALENDAR ●

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

Generation Sale DATABASE

Seller	Assets	Location	Adviser	Status/Comment
Amasa Advisory Services	Portfolio (180 MW Solar)	Arizona		Portfolio in market (PFR, 8/17).
● American Electric Power	Portfolio (70 MW Hydro)	US	Scotiabank	Sale expected to conclude by late 2020 (see story, page 5).
● AltaGas	Blythe (507 MW Gas)	California	Scotiabank	The sale has been relaunched (see story, page 5).
● Apex Clean Energy	White Mesa (500 MW Wind)	Crockett County, Texas		NextEra is the buyer (see story, page 5).
Blackstone Group	Onyx Renewable Partners	US	BNP Paribas	Platform sale launched (PFR, 8/3).
Brookfield Infrastructure	Enwave Energy (District energy)	US, Canada	Scotia, TD	Auction to be launched this year (PFR, 8/10).
Calpine	Freeport (260 MW CHP)	Freeport, Texas	BofA, Guggenheim	Sale process initiated earlier this year (PFR, 7/27).
Clearway Energy Group	Mesquite Star (419 MW Wind)	Texas		Drop down to yieldco Clearway Energy (PFR, 8/17).
Constellation	C&I Solar platform	US	BofA Securities	Auction launched in June (PFR, 7/6)
Community Energy	St Martin (100 MW Solar)	St Martin Parish, Louisiana		The sponsor put out marketing materials in June (PFR, 7/6).
● Cypress Creek Renewables	Madison Solar (62.5 MW Solar)	Virginia		Dominion Energy is the buyer (see story, page 7).
DIF Capital Partners	Lone Valley (30 MW Solar, 49%)	San Bernardino County, CA	Fifth Third	Sale process initiated by end July (PFR, 8/10).
● EDF Renewables North America	Portfolio (1.6 GW Wind, Solar)	US	BofA Securities	Masdar is buying a 50% stake (see story, page 6).
Energy Capital Partners	Alpine Portfolio (507 MW Cogen)	Canada	Credit Suisse	CIM sent to bidders in mid-July (PFR, 8/10).
● Enel	Enel Americas (2.7% stake)	Chile		Enel has increased its stake (see story online).
First Solar	US Development Platform	US	BofA, CohnReznick	Bids are due in August (PFR, 8/10).
Hecate Energy	Hecate Energy	US	Guggenheim	Teasers were circulated in June (PFR, 7/20).
● Invenergy	Portfolio (326 MW Wind, 20.1%)	Texas		AEP has acquired the stakes (see story, page 7).
	Titan 1 (800 MW Solar)	Texas	Marathon Capital	Bids due July/August (PFR, 6/22).
Johnson Development Associates	Pinson (20 MW Solar)	South Carolina	EOS Capital Advisors	Marketing materials distributed in June (PFR, 6/29).
Macquarie Capital	Candela Renewables	US	Nomura Greentech	The sponsor has launched the sale process (PFR, 7/20).
● Middle River Power	High Desert (100 MW Solar, Storage)	California	Marathon Capital	Goldman Sachs is the buyer (see story, page 7).
New Energy Solar	Mount Signal II (154 MW Solar, 50%)	California	Jefferies	The sale to NextEnergy Capital Group has been delayed (PFR, 8/17).
NextEra Energy Resources	Project Gila (115 MW Solar)	Texas	Marathon Capital	The sale processes were launched in June (PFR, 7/13).
	Project Rocket City (150 MW Solar)	Alabama		
Prumo Logistica, BP, Siemens	GNA I & II (3 GW LNG-to-power, 33%)	Brazil	BofA, Lakeshore, Itaú BBA (buyer)	China's State Power Investment Corporation has agreed to buy the stake (PFR, 8/17).
PSEG	PSEG Fossil (6,750 MW Thermal)	NJ, CT, NY, MD	Goldman Sachs	PSEG has begun a strategic review of the portfolio (PFR, 8/10).
	PSEG Solar Source (467 MW Solar)	US		
Renova Energia	Alto Sertão III B (305 MW Wind)	Brazil		Prisma Capital made an offer (PFR, 8/17).
RPM Access	Rippey (50 MW Wind)	Greene County, Iowa		Greenbacker is the buyer (PFR, 8/17).
Solar Landscape	Portfolio (20 MW [DC] Solar)	New Jersey		Bids due September (PFR, 8/17).
SunEast Renewables	Portfolio (275 MW Solar)	New York	Nomura Greentech	The developer has launched the sale (PFR, 7/6).
● US Wind	Maryland Offshore (270 MW Wind)	Maryland	PJ Solomon	Apollo has invested $265 million (see story, page 1).
Vision Ridge Partners	Key Capture Energy (Storage)	US	Onpeak	Auction penciled for August (PFR, 7/27).

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

Live Deals: Americas

Sponsor	Project	Location	Lead(s)	Deal Type	Loan Amount	Tenor	Notes
Arroyo Energy	El Arrayán (115 MW Wind)	Chile	SMBC, Crédit Agricole	Debt	$140M	7-yr	Closing delayed until August (PFR, 6/8).
	Pemcorp (131 MW Gas)	Chile	SMBC, Natixis	Refinancing	$170M	7-yr	Close expected in August (PFR, 8/3).
Atlas Renewable Energy	Pimienta (400 MW (DC) Solar)	Campeche, Mexico	DNB, IDB Invest, Bancomext	Private Placement	$200M		Closing was expected by early June (PFR, 5/18).
	Juazeiro (187 MW Solar)	Brazil	IDB Invest	Debt	$90M		Negotiations are underway (PFR, 5/26).
Boralex	Niagara Region (230 MW Wind)	Ontario, Canada	KfW, Caixa, Desjardins, SocGen, Sumi Trust, Associated Bank, CIC	Debt refinancing	$805M	16-yr	Refinancing has closed with Plan A Capital advising the sponsor (PFR, 8/17).
Casa dos Ventos	Ventos Santa Martina 14 (63 MW Wind)	Brazil	BNDES, BNB	Term loan	$38.3M		BNDES has approved the loan (PFR, 7/13).
Clearway Energy Group	CS Fund 6 (66 MW [DC] Solar)	US	CIT, Key, SVB, CNB	Debt	$185M	5-yr	Deal has closed (PFR, 8/17).
Competitive Power Ventures	Three Rivers (1,250 MW Gas)	Grundy County, Illinois	MUFG, BNP Paribas	Construction debt	$750M	7-yr	Deal relaunched on June 16 (PFR, 6/22).
				Ancillary Facilities	$50M		
● Duke Energy	Portfolio (75 MW Solar)	US	Goldman Sachs	Tax equity	$109.4M		Deal has closed (see story, page 10).
EDF Renewables	Gunaa Sicarú (252 MW Wind)	Oaxaca, Mexico		Term loan			Term sheets received from banks (PFR, 7/13).
Enel Green Power	Lily (146 MW Solar, storage)	Texas	CCA Group (adviser)	Tax equity			Project under construction (PFR, 7/27).
Fisterra Energy	Tierra Mojada (875 MW Gas)	Jalisco, Mexico		Bond refinancing			Morgan Stanley understood to be pursuing mandate (PFR, 5/4).
● GenOn Energy	Portfolio (1,570 MW Gas)	California	CIT Bank, Investec, SocGen	Refinancing	$265M		The sponsor has mandated banks (see story, page 1).
Grupo Ibereólica, GPG	Cabo Leones 2 (204 MW Wind)	Chile	Crédit Agricole	Construction Debt			Cred Ag has won the mandate (PFR, 5/26).
Invenergy	Prineville, Millican (100 MW Solar)	Crook County, Oregon	CoBank	Debt			Deal has closed (PFR, 8/17).
● Interconexión Eléctrica (ISA)	Transmission portfolio	Colombia	BTG Pactual, Valores Bancolombia, Credicorp Capital Colombia	Bond	$42.56M	9-yr	Deal closed on August 13 (see story, page 12).
					$37.24M	20-yr	
Korea Electric Power Co, Sprott Korea	Portfolio (199 MW Solar)	Mexico	SMBC	Term loan	$140M		Deal expected to close in September (PFR, 7/20).
Key Capture Energy	Portfolio (1.5 GW Storage)	US		Capital Raise	$400M-$600M		The sponsor is in talks with investment banks (PFR, 5/4).
Kineticor Resource	Cascade (900 MW Gas)	Yellowhead County, Alberta	ATB, Crédit Agricole, NBC, Nomura	Capital Raise	$915M		The sponsor has reached out to banks for financing (PFR, 7/20).
● Mainstream Renewable	Huemul, Copihue (730 MW Solar, Wind)	Chile	Caixabank, IDB Invest, SMBC, Credit Agricole, ABN Amro, KfW, SocGen	Term loan	$500M-$600M	19-yr	Deal expected to close in August (see story, page 11).
● NextEra Energy	Portfolio (639.1 MW Wind)	US					Financing expected by year-end (see story online).
● OPDEnergy	Portfolio (154.3 MW Wind, Solar)	Chile	SMBC	Term loan	$103M	7-yr	Deal closed on August 13 (see story, page 11).
Recurrent Energy	Pflugerville (144 MW Solar)	Travis County, Texas	CIT, Nord, Rabo, Zions	Debt		C+5-yr	Deal closed August 7 (PFR, 8/17).
			US Bank	Tax equity			
● Silicon Ranch Corp	Snipesville (86 MW Solar)	Georgia		Sale Leaseback	$65M	17-yr	Sale-leaseback financing with JDA (see story, page 8).
● Solarpack, Ardian	Portfolio (43.4 MW Solar)	Peru	SMBC, BNP Paribas	Refinancing			Sponsors have mandated banks (see story, page 1).
Sunenergy1	Portfolio (100 MW Solar)	US	CIT, ING Capital	Construction Debt			Financial close is months away (PFR, 5/26).
● Sunrun	Portfolio (Resi Solar)	US	Investec, SVB	Term loan	$270M	7-yr	Deal closed on August 13 (see story, page).
WhiteWater Midstream	Whistler (Gas pipeline)	Texas	Investec	Holdco debt	$133M	C+5-yr	Deal launched July 26 (PFR, 8/3).

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Utility eyes hydro portfolio sale in PJM Interconnection

An investor-owned utility is forging ahead with a re-worked auction process for a portfolio of operational hydro projects in PJM Interconnection.

American Electric Power is selling seven assets totaling roughly 70 MW, sources tell *PFR*. **Scotiabank** is running the sale, which is codenamed Project Tornado, say deal watchers.

The plants are held by AEP subsidiaries **AEP Generation Resources** and **Indiana Michigan Power** (I&M). Apart from the largest project, which was commissioned in 1982, the remainder are about 100 years old (see table right).

The run-of-river plants are fully merchant and unlevered, says a person familiar with the sale.

The recently launched auction represents a second attempt by AEP to sell hydro assets this year.

The company had initially placed 10 hydro assets under review for a potential sale in March, according to the company's most recent 10Q filing.

But in April, Virginia Governor **Ralph Northam** signed the Virginia Clean Economy Act, which provides renewable energy credits to AEP subsidiary **Appalachian Power**'s (APCo) hydro plants.

As a result, AEP removed three APCo projects in West Virginia from the sale block.

They were:
- Winfield – 14.7 MW
- London – 14.4 MW
- Marmet – 14.4 MW

If the remaining seven-project fleet is sold, all of the assets will require US **Federal Energy Regulatory Commission** approval and one of them, Racine, will need state commission clearance.

A sale is expected to conclude by late 2020 at the earliest. AEP has assigned a book value of $88.5 million on the portfolio.

Project Tornado hydro portfolio

Owner	Plant	Units	Location	Book value	Size	Year Commissioned
AGR	Racine	2	Ohio	$57.90 million	48 MW	1982
I&M	Berrien Springs	12	Michigan	$7.70 million	6 MW	1908
I&M	Buchanan	10	Michigan	$5.00 million	3 MW	1919
I&M	Constantine	4	Michigan	$2.60 million	1 MW	1921
I&M	Elkhart	3	Indiana	$5.50 million	3 MW	1913
I&M	Mottville	4	Michigan	$2.80 million	2 MW	1923
I&M	Twin Branch	8	Indiana	$7.00 million	5 MW	1904

Source: AEP Form 10-Q

AltaGas relaunches California CCGT sale

AltaGas has relaunched the sale of its 507 MW Blythe Energy Center gas-fired combined-cycle facility in Blythe, California, two years after scrubbing an auction in 2018.

Scotiabank is acting as auctioneer for the project, which is located in Southwest California's Riverside County, bordering Arizona to the east.

The expiration of the plant's tolling agreement with **Southern California Edison** was recently pushed back from July 2020 until December 2023.

AltaGas attempted to market Blythe in a package with its 330 MW Tracy combined-cycle plant in San Joaquin County in 2018, but had to go back to the drawing board (PFR, 3/5/18).

The Tracy asset was eventually sold to **Middle River Power III**, the Chicago-based portfolio company of **Avenue Capital Partners**, as part of a new $300 million package that also included the 96 MW Henrietta and 97 MW Hanford peakers in Kings County, California (PFR, 9/11/18).

Scotiabank advised AltaGas on that transaction, which was shortlisted for *PFR*'s North America Conventional Power M&A Deal of the Year Award (PFR, 3/12/19).

Blythe became the first generation asset AltaGas owned in the western US when the Canadian utility holding company acquired it from **LS Power** for $515 million in 2013 (PFR, 3/26/13). The plant's $1,015/kW price tag put it at the top-end of valuations of gas-fired assets at the time.

AltaGas financed the acquisition in part with a $300 million senior unsecured revolving credit facility from **Toronto-Dominion Bank** and **Royal Bank of Canada** and in part with a $352 million equity offering.

LS Power had acquired Blythe from **NextEra Energy Resources** in 2011, as part of a $1.4 billion portfolio.

Buyer of Apex's White Mesa project revealed

The previously unnamed buyer of **Apex Clean Energy**'s 500 MW White Mesa wind farm in Crockett County, Texas, has been identified.

The project's new owner is **NextEra Energy Resources**.

Apex announced the sale "to an unnamed buyer" last week (PFR, 8/12).

The $582 million project will be fitted with 180 **General Electric** turbines and is set to commence operations by the end of 2021.

The White Mesa project is contracted with a bevvy of corporate offtakers assembled by Apex with input from consulting firms **Energy Edge Consulting**, **EDF Energy Services** and **3Degrees**.

The offtakers are:
- **Apple**
- **Applied Materials**
- **Baker Hughes**
- **eBay**
- **Samsung Austin Semiconductor**
- **Sprint**

NORTH AMERICA MERGERS & ACQUISITIONS

Masdar, EDF join forces on 1.6 GW renewables portfolio

The **Abu Dhabi Future Energy Co**, also known as **Masdar**, has signed an agreement with **EDF Renewables North America** to work together on a 1.6 GW portfolio of wind, solar and battery storage projects spread across the US.

Masdar, which is a subsidiary of the **Government of Abu Dhabi**'s sovereign wealth fund, **Mubadala Investment Co**, has agreed to acquire a 50% stake in the eight-project portfolio, marking its second strategic investment in the US.

BofA Securities is acting as exclusive financial adviser to Masdar on the deal, which is expected to close in the fourth quarter of this year, subject to regulatory approvals.

The partnership will see Masdar further grow its presence in Texas while expanding its footprint into California and Nebraska for the first time.

"EDF's collaboration with Masdar runs deep in the Middle East and North Africa already," said **Tristan Grimbert**, president and CEO of EDF Renewables North America. "This deal writes a new chapter of cooperation between our two companies focused on the North American market. I would like to highlight the exceptional quality of work for both the Masdar and EDF Renewables North America teams over the last year to execute this transaction in particularly troubled times."

The portfolio comprises three utility-scale wind farms in Nebraska and Texas totaling 815 MW and five solar projects in California totaling 689 MW, with 75 MW of lithium-ion battery storage systems spread across two of the solar projects.

The three wind projects are under construction and due to be online in the fourth quarter of 2020.

They are:

◆ Coyote – a 243 MW project in Scurry County, Texas

◆ Las Majadas – a 273 MW project in Willacy County, Texas

◆ Milligan 1 – a 300 MW project in Saline County, Nebraska

The five California solar projects are:

◆ Desert Harvest – a 150 MW project in Riverside County

◆ Desert Harvest II – a 70 MW project in Riverside County with 35 MW/140 MWh of battery storage

◆ Maverick 1 – a 173 MW project in Riverside County

◆ Maverick 4 – a 136 MW project in Riverside County

◆ Big Beau – a 166 MW project in Kern County with 40 MW/160 MWh of battery storage

The Desert Harvest and Maverick projects are under construction and slated to come online in the fourth quarter of 2020, while Big Beau is expected online in 2021. The projects all use horizontal single-axis tracking technology.

The projects' generation is contracted to a variety of offtakers including utilities, hedge providers and community choice aggregators.

Masdar first entered the North American renewables market in early 2019 with the acquisition from **John Laing** of stakes in two wind farms, namely the 149 MW Rocksprings facility in Texas and the 29.9 MW Sterling facility in New Mexico (PFR, 1/15/19).

"As the second largest renewable energy producer in the world in terms of installed power capacity, the US offers considerable scope for further growth and diversification of our renewable energy portfolio," said **Mohamed Jameel Al Ramahi**, CEO of Masdar. ■

Apollo backs Italian-owned US offshore wind developer

« FROM PAGE 1

land Offshore Wind Project, dubbed "MarWin," is expected to come online in 2024.

Planning for the next step of the financing – project debt and tax equity – is underway, as the sponsors await the result of a review by BOEM of the project's construction and operations plan (COP). The COP was filed earlier this month and is likely to take about 18 to 24 months to obtain approval.

US Wind is a Baltimore-based subsidiary of Italy's **Toto Holding Group**.

Structuring part of Apollo's investment as convertible debt was said to allow for an efficient capital raise with an acceptable long- term ownership arrangement for both parties.

"Rather than selling the project, US Wind wants to control the development and financing"

"Apollo is really interested in the offshore wind area and wants to participate more," says a deal watcher. "Rather than selling the project, US Wind wants to control the development and financing, so they did a convertible debt deal, and if the project does well, then Apollo can increase its stake."

The financial and legal advisers on Apollo's investment are:

◆ **PJ Solomon** – sole financial adviser to US Wind and Toto Holding Group

◆ **McDermott Will & Emery** – legal adviser to US Wind

◆ **Orrick** – legal adviser to US Wind

◆ **Allen & Overy** – legal adviser to Apollo

The Apollo infrastructure platform is led by senior partners and co-heads of infrastructure and natural resources **Dylan Foo**, a former **AMP Capital** executive, and **Geoffrey Strong**, who has previously worked at **Blackstone** and **Morgan Stanley Capital Partners**.

"US Wind is a premier developer at the forefront of an offshore wind energy industry that is rapidly expanding in both the US and abroad, as interests coalesce around clean energy," said Strong. "For Apollo, this is an exciting partnership that leverages our track record in renewable energy infrastructure investments and underlines the Firm's strong commitment to sustainability."

US Wind was founded in 2011 and is owned by **Renexia**, a subsidiary of Toto Holding. In 2014, US Wind obtained a federal lease for site control to develop up to 1.3 GW of offshore wind generation off the coast of Maryland. ■

Dominion buys contracted Virginia solar project

Dominion Energy has bought the 62.5 MW Madison Solar project in Orange County, Virginia, from **Cypress Creek Renewables**.

Dominion will own the contracted asset through its competitive generation arm, and the project will sell its energy and renewable energy certificates to **Northrop Grumman Corp**. The aerospace firm says the project will cover 100% of the electricity use of its operations in Virginia.

"Northrop Grumman has a long-standing commitment to environmental sustainability and greenhouse gas emissions reductions," said **Sandra Evers-Manly**, vice president of global corporate responsibility at Northrop Grumman. "As we look beyond our 2020 goals, this project will play an important role in the next generation of our climate-related commitments."

The Madison project has permits in place and is expected to be online in the second quarter of 2022.

It was originally developed by **SolUnesco**, which sold it in March 2017 to **Sol Systems**. The latter sold it to Cypress Creek in early 2019.

As it aims to meet the Virginia Clean Economy Act's requirement for zero-carbon electricity by 2045, Dominion plans to add about 16 GW of solar generation over the next 15 years through company-owned projects and power purchase agreements signed with third-party developers in the state. ■

GSRP snaps up California solar-plus-storage project

Goldman Sachs Renewable Power has bought the 100 MW High Desert Solar project in California, which has a 50 MW/200 MWh battery storage component, from **Middle River Power**.

The transaction comes after Middle River mandated **Marathon Capital** as financial adviser to market the project, which is also known as Goldenrod and is located in San Bernardino County, as previously reported by *PFR* (PFR, 3/5).

High Desert was Middle River's first solar project. The private equity-backed independent power producer has previously focused almost exclusively on thermal generation.

The project is due to be online in late 2020 or early 2021 and has a 15-year power purchase agreement with community choice aggregator **Clean Power Alliance** for its full output, resource adequacy and ancillary attributes, for delivery in August 2021 (PFR, 7/10).

"The MRP team brought to market a meticulously developed, contracted solar and storage project, and found in GSRP a team able to digest the development nuances in California, navigate the financing challenges posed by COVID, and oversee the procurement effort and construction of the project around a strict deployment schedule set forth by CAISO," said **Felipe Arrazola**, director at Marathon Capital. "We are glad to have brought these two excellent teams together and look forward to the successful deployment of further renewable resources for California's Community Choice Aggregators."

The project is located in the City of Victorville, near Middle River's 830 MW High Desert gas-fired combined-cycle project, which has been online since 2003. The solar project will procure CAISO interconnection capacity from the gas-fired project.

Middle River's private equity sponsor, **Avenue Capital**, acquired the High Desert CCGT from **Tenaska Capital Management** in April 2016, along with the 250 MW Wolf Hills Energy project in Bristol, Virginia, and the 300 MW Big Sandy peaker in Kenova, West Virginia (PFR, 2/18/16). ■

Invenergy parts with stakes in Texas wind farms

AEP Renewables has acquired **Invenergy**'s stakes in a pair of Texas wind farms that the two companies have co-owned for the past two years, in line with the terms of a repowering deal they struck in 2018.

Invenergy was given its 20.1% stakes in the 170 MW Desert Sky and 156 MW Trent Mesa wind facilities back in 2018, in return for providing the turbines for the repowering.

As part of the bargain, put and call options were signed that would allow Invenergy to sell its stakes in the projects back to AEP this year.

The price would be determined "using a discounted cash flow model with agreed input assumptions," according to AEP filings with the US **Securities and Exchange Commission**. AEP said the terms of the deal would not be disclosed "for competitive reasons."

AEP originally contributed about $235 million of cash equity to the project companies for its 79.9% stakes, while Invenergy's contribution was valued at $84 million, according to company filings. The valuation was based on assumptions including the original cost of the turbines and discounted cash flow benefits from expected production tax credits.

Located in Pecos County and Nolan County, respectively, the Desert Sky and Trent Mesa projects were originally contracted with utilities **TXU** and **CPS Energy** when they were project financed in the early 2000s (PFR, 8/19/03, 3/31/03). However, they went merchant as part of the repowering plan.

From January 1, 2021, the projects will sell their output to AEP's whosleale power marketing arm, **AEP Energy Partners,** under a 12-year power purchase agreement that was signed in January 2018. AEP EP will in turn use the generation to supply customers such as movie theater chain **Cinemark**, which signed a nine-year virtual power purchase agreement for 40 MW in October 2018 (PFR, 10/29/18).

"AEP Renewables is focused on developing and operating renewable generation facilities to help meet the long-term, clean energy goals of utilities, electric cooperatives, municipalities and corporate customers," said **Greg Hall**, president of AEP Renewables, in a statement. "With the full capacity of Trent Mesa and Desert Sky, AEP Renewables can better support the increasing demands of its expanding renewable customer base."

AEP Renewables is also constructing a 128 MW wind project called Flat Ridge 3 in Kingman County, Kansas. This project will increase the size of the company's competitive renewables portfolio to 1,495 MW. ■

NORTH AMERICA PROJECT FINANCE

GenOn to launch financing of California CCGT duo

« FROM PAGE 1

◆ **Société Générale**

A bank meeting will be held this week for the $265 million deal, which includes a term loan, *PFR* can reveal.

The sponsor started reaching out to lenders around mid-June for a loan to refinance the assets, and by July had shortlisted lenders for the role of lead arranger, as previously reported (PFR, 6/26, 7/9).

Both plants are at the end of their useful lives, having been online since the 1970s. The coastal Ormond Beach plant had been slated to retire due to a 2010 policy of the **California State Water Resources Control Board** requiring that plants which use coastal water to cool their generators, such as Ormond Beach, be mothballed by the end of 2020.

However, the Ormond Beach facility was required to continue operating for grid stability reasons and GenOn is in talks with California state agencies regarding reliability must run contracts to allow it to operate through 2023. The Ellwood plant is in a similar position.

On the other side of the country, **Jefferies** (left lead) and **Sequoia Investment Management** recently closed a $109.5 million refinancing for GenOn's 1,142 MW Bowline facility in Haverstraw, New York, in the Lower Hudson Valley (PFR, 7/9).

The deal was unique in that it included a $105 million term loan split into two levels with different triggers allowing for the ability to upsize to $150 million immediately or to $180 million next year.

Jefferies is also acting as sell-side adviser to GenOn on the recently launched auction of its 2,382 MW Heritage Power Holdings portfolio, comprising 16 gas-fired steam, combined-cycle and combustion-turbine facilities in **PJM Interconnection** (PFR, 6/9). ■

Invenergy wins Arkansas solar build-transfer

Invenergy Renewables has signed a build-transfer deal with **Entergy Arkansas** for one of the largest solar projects in the state.

The utility company will buy the 100 MW Walnut Bend Solar project in Lee County under the terms of the deal, which is subject to approval by the **Arkansas Public Service Commission**.

Construction is slated to start in the fourth quarter of 2021 and the project is due online by the end of 2022. It will be fitted with bi-facial solar panels.

"Utility-scale solar generation is the future of economic solar power in Arkansas," said Entergy Arkansas president and CEO **Laura Landreaux**. "Walnut Bend will be a valuable addition to our solar fleet, which, in turn, complements our diverse mix of generation sources that have been powering life in Arkansas for 107 years now. Carefully managing our resources is how we keep rates relatively low in Arkansas, which is essential to the continued economic growth of our state."

The Walnut Bend project will be Entergy Arkansas' fourth utility-scale solar facility. The other three are:

◆ The 81 MW Stuttgart Solar project, which has been operational since 2017

◆ The 100 MW Chicot Solar project at Lake Village, which is expected to come online in fall 2020

◆ The 100 MW Searcy Solar facility, which is due to be online in 2021.

Searcy will be first solar project in the state to feature battery storage (PFR, 4/28)

NextEra Energy Resources is the developer of Stuttgart, Chicot and Searcy (PFR, 3/20/19), and financed the Stuttgart project with industrial revenue bonds in 2018 (PFR, 3/27/18) ■

SunRun seals term loan financing

Residential solar company SunRun, which recently struck a deal to acquire its rival **Vivint Solar**, has closed an oversubscribed term loan financing.

The $270 million seven-year loan, known as Mars, closed on August 13.

Investec and **Silicon Valley Bank** arranged the deal, which was priced at 300 bp over Libor, in line with initial price thoughts, and was oversubscribed (PFR, 7/9, 7/24).

The popularity of the loan could have something to do with the recently signed $3.2 billion all-stock deal to acquire rival Vivint, creating a company with a 24% market share (PFR, 7/7).

The term loan was launched in June (PFR, 6/16). ■

Silicon Ranch lines up solar sale leaseback

Silicon Ranch Corp is forging ahead with a tweaked sale-leaseback financing for its 86 MW Snipesville solar plant in Jeff Davis County, Georgia.

The sale-leaseback counterparty – the **Joint Development Authority of Jeff Davis County, Hazlehurst, and Denton** (JDA) – will issue a $65 million 17-year tax exempt bond in October as part of the recently amended financing plan.

The original memorandum of understanding between the developer and the JDA, signed in May 2019, provided for a smaller but longer-term bond – $47 million with a tenor of 25 years. The project itself was also expected to be smaller in size at that time, clocking in at 61 MW (PFR, 3/11).

The MoU was amended on May 20, 2020, to reflect the new terms.

Regions Bank and **IberiaBank Corp** are acting as trust banks.

Legal advisers are:

◆ **Seyfarth Shaw** – bond counsel to JDA

◆ **Carla Roberts Powell** – issuer counsel to JDA

◆ **Miller Martin** – counsel to Silicon Ranch

The parties have requested US **Federal Energy Regulatory Commission** approval of the deal by October 14. They expect to close the transaction on or around October 27.

Silicon Ranch, which is backed by **Shell New Energies**, has also been seen this year looking for $300 million in corporate equity (PFR, 5/28). ■

CASE STUDY

Case Study: Hamilton Projects Acquiror, Pennsylvania

The Carlyle Group and **EIG Global Energy Partners**' deal to take ownership of **Panda Power Funds**' Patriot and Liberty combined-cycle gas-fired plants in Pennsylvania ended years of speculation about the fate of the two plants. But the story did not end there, as the buyers launched the acquisition financing into a market roiled by coronavirus.

Panda, which originally financed the two projects with senior and mezzanine debt in 2013, had been looking for a refinancing solution since 2018, when the two plants began to breach debt covenants and suffer credit rating downgrades, and as the sponsor came under financial pressure itself (PFR, 1/16/18).

The deal between Carlyle and EIG, which emerged at the beginning of 2020, solved several problems at once – Panda would be able to dispose of the assets; the senior lenders would be repaid; the mezzanine lender, EIG, would be able to preserve some value and continue to participate in the projects as equity; and Carlyle would add stakes in two relatively new and efficient CCGTs to its portfolio (PFR, 1/15).

As part of the arrangements, Carlyle and EIG made equity cures of about $5 million at each of the two plants to keep them going. All that was remained to be done was to raise fresh debt in the leveraged loan market. **Morgan Stanley** was appointed as left lead on a $900 million term loan B, dubbed Hamilton Projects Acquiror, and the deal was readied for launch.

During the last week of February and the first week of March, pre-marketing meetings were held with a small number of key term loan B investors before initial price thoughts were floated between 400 and 450 bp over Libor (PFR, 3/9).

"We did a lot of pre-work before the launch to create a greater certainty of success," says **Jim Larocque**, the Carlyle managing director who oversaw the acquisition and financing. "We were strategic and selective in our approach to pre-marketing the deal, focusing on a smaller group of investors that could speak for a larger portion of the deal."

The group is understood to have included an anchor investor out of South Korea.

But before the deal could close, it would have to navigate the fallout of a global pandemic.

"Things went from feeling normal to very abnormal in the span of about a week, causing us to put the deal on pause for several weeks," says Larocque.

The purchase agreement with Panda was flexible enough to give Carlyle and EIG a fairly long runway to complete the deal, though the maturity of Liberty's existing debt was looming in August 2020.

In April and May, data trickled in showing the impact of the pandemic on power assets in PJM, which Carlyle was able to turn into an unlikely selling point.

"The early read was that power demand was off somewhere in the high single digits in percentage terms," says Larocque. "At first that seemed concerning, but ultimately, given the extent of the economic shutdown, what it demonstrated was the resiliency of these assets even in the face of an unprecedented economic shock."

Another tailwind, when the market eventually reopened, was the lack of competing supply, which made it easier for Hamilton to catch the attention of starved term loan B investors (PFR, 6/5).

Even so, given the circumstances, it was to be expected that the pricing would widen. The question was by how much. And the fact that there weren't any recent comparable deals to point to made that question more difficult to answer, says Larocque.

On June 2, Morgan Stanley launched the deal at a wider starting point of 500 bp and with a generous original issue discount (OID) of 96 to 97 (PFR, 6/5). The deadline for commitments was June 10.

The debt package comprised:

- $900 million seven-year term loan B
- $115 million five-year revolver

The term loan is pre-loaded with a $100 million accordion feature.

Moody's Investors Service assigned the deal a B1 rating, while **S&P Global Ratings** scored it a notch higher at BB-.

The deal was nearly two times oversubscribed, allowing Morgan Stanley to tighten the pricing back up to 475 bp and set the final OID at 97, producing an all-in yield of around 6.45%. Tickets were allocated on June 11 (PFR, 6/11).

The bookrunners were:

- Morgan Stanley (left)
- **BNP Paribas**
- **Credit Suisse**

Advisers on the acquisition and the financing were:

- **Vinson & Elkins** – legal adviser to Carlyle and EIG (financing)
- **Debevoise & Plimpton** – legal adviser to Carlyle and EIG (M&A)
- **Latham & Watkins** – legal adviser to Panda
- **Milbank** – legal adviser to the lenders

The new equity in the 1.7 GW Hamilton portfolio totals roughly $671 million, comprising cash equity from Carlyle and the conversion of EIG's mezzanine capital.

"What this transaction shows is that deals can get done in this environment, so ultimately it should bolster confidence," says Larocque. "Completion of the Hamilton financing provides better clarity on where pricing is in this environment, something that we didn't have when we launched the deal in June."

Even so, deal watchers say the term loan B market is unlikely to be very active after Labor day simply because there aren't many transactions on bankers' M&A calendars that require financing.

Apart from the pandemic, long delays to the PJM capacity auction process and a lack of buyers entering the independent power space are given as explanations for the lackluster M&A schedule.

"Many buyers are waiting on the sidelines to see where capacity prices shake out before participating in new M&A transactions," says Larocque. "In the very few M&A deals that have gotten done recently, they've been done primarily by sponsors with dedicated power sector expertise like us."

Meanwhile, the deal between Carlyle and EIG could serve as a template for alternative restructurings of Panda's other quasi-merchant gas-fired assets in Texas and PJM, some of which were also financed with mezzanine capital. ■

NORTH AMERICA PROJECT FINANCE

Goldman dishes up unusual preferred tax equity financing for Duke

Goldman Sachs' alternative energy investing group has provided a $109.4 million preferred tax equity financing for a multistate portfolio of solar and battery storage assets being developed by **Duke Energy Renewables** subsidiary **REC Solar**.

The financing will be used over 18 months to fund the construction of a 75 MW portfolio of projects, including ground-mounted and rooftop commercial and industrial solar as well as community solar.

The assets are located in Arizona, California, Colorado, Hawaii, Massachusetts and Texas.

"Goldman Sachs' investment will support Duke Energy Renewables' continued growth in the distributed energy space, which will further our goals of delivering long-term value to customers and investors," said **Chris Fallon**, president of Duke Energy Renewables.

The projects, some of which are behind the meter, will sell their generation to a range of private and public sector customers through long-term power purchase agreements.

"Our partnership with Duke Energy Renewables demonstrates the benefits of an integrated approach to financing high-quality distributed solar projects at scale," said **Vivek Kagzi**, a vice president at Goldman Sachs. "By combining the financing of tax and cash attributes into a single product, Goldman Sachs is able to provide sponsors like Duke Energy Renewables with comprehensive and flexible financing solutions tailored to each individual portfolio's needs."

Advisers on the transaction include:

- **NextPower Capital** – financial adviser to Duke Energy Renewables and REC Solar
- **Hunton Andrews Kurth** – legal adviser to Duke Energy Renewables
- **O'Melveny & Myers** – legal adviser to Goldman Sachs

Q2 league tables: Lenders overcome Covid slowdown

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an impressive couple of quarters.

"A number of our European and Asian competitors, given the initial disruption, had stepped back, partly to mirror what happened during the Great Recession," said **Brian Goldstein**, CoBank's head of project finance, during *PFR*'s Midyear Review Roundtable.

HSBC surged to third place, closing 10 deals worth $773 million of league table credit, more than it garnered in the whole of 2019. The British bank finished 16th overall last year, with six deals totaling $618 million. In 2018, HSBC placed 28th.

"I think HSBC has done some incredibly innovative transactions," says the managing director at a renewables-focused private equity firm in New York. "They are helpful when things have gone poorly. They've gone from a tier B lender to a tier A lender, able to lead transactions and able to command the respect of the marketplace."

HSBC led on the $705 million debt package for **sPower**'s 485 MW Spotsylvania solar project in Virginia last month – the largest solar project in PJM Interconnection (PFR, 7/20).

Several deal watchers have attributed HSBC's recent success to managing director **James Wright**. Unfortunately for HSBC, he is leaving to take up a senior role elsewhere (see story, page 16).

Other foreign lenders will be hoping for a strong second half of the year to have a shot at matching their 2019 league table rankings. **Crédit Agricole**, for instance, is sitting in 15th place this year, with just $281 million of league table credit across five deals. The French bank finished 2019 in fifth place with more than $1.2 billion. The slowdown in PJM gas-fired deals may be a factor.

Overall deal volume for the first half of 2020 is in fact up from the first half of 2019, coming in at $13.67 billion versus $11.64 billion. This was driven in large part by construction debt for renewable energy projects racing to meet federal tax deadlines.

League table leader MUFG is sitting on $1.44 billion of credit across 15 transactions. This time last year, KeyBank was in pole position with $1.22 billion from 20 deals. Key went on to finish top the pile in 2019, having closed project financings worth more than $2.7 billion in league table credit (PFR, 3/27).

"We've more than doubled the size of the group, if not tripled it, over the last 10 years to take advantage of the increased financing and advisory opportunities [in renewables]," said **Andy Redinger**, managing director at Key, in a recent Q&A interview.

Among the law firms, **Latham & Watkins** is well out in front, with twice as many transactions as second place **Milbank**. One has to go back to 2010 for the last year that Latham did not finish a year top of the table.

North America power & renewables project finance legal advisors H1 2020

Rank	Firm	Deal value	Transactions	Market Share (Value)
1	Latham & Watkins	$5,609.35 million	26	16.2 %
2	Milbank	$5,041.87 million	13	14.56 %
3	Norton Rose Fulbright	$3,288.12 million	13	9.5 %
4	Mayer Brown	$3,022.34 million	10	8.73 %
5	Winston & Strawn	$2,052.59 million	14	5.93 %
6	White & Case	$1,959.50 million	3	5.66 %
7	Husch Blackwell	$1,615.51 million	3	4.67 %
8	Skadden	$882.62 million	4	2.55 %
9	Hunton Andrews Kurth	$750.00 million	1	2.17 %
10	King & Spalding	$633.93 million	3	1.83 %

Source: IJGlobal

LATIN AMERICA PROJECT FINANCE

Mainstream nears financial close for Huemul

Irish developer **Mainstream Renewable Power** is nearing financial close for the second phase of its 1.3 GW Andes Renovables portfolio in Chile, which is penciled for this month.

The loan to fund the construction of the 730 MW Huemul and Copihue portions of the portfolio has been in the works since November, when the first phase, Condor, reached financial close (PFR, 11/5/19).

The sponsor was pushing to close the $500 million-to-$600 million 19-year loan for Huemul and Copihue by April, but construction problems caused by the pandemic led to delays in the financing. The deal is now expected to close in the next two weeks, says a deal watcher in New York.

Bankers are in the process of obtaining approvals from their institutions and finalizing the details, he adds.

"Right now, all banks are still doing the deal, but we will see if any drop out of the financing," he explains, pointing to the expectation that some lenders may abandon the deal given market conditions.

The institutions previously reported to be in the transaction are:

- **Caixabank**
- **DNB**
- **KfW IPEX-Bank**
- **Sumitomo Mitsui Banking Corp**
- **Société Générale**
- **Crédit Agricole**
- **ABN Amro**
- **IDB Invest**

IDB Invest, Crédit Agricole, and ABN Amro were not in the Condor deal (PFR, 2/24). IDB has requested approval to provide a ticket of up to $200 million (PFR, 3/2).

The Huemul project portfolio is made up of five assets with a total capacity of 630.2 MW.

The projects are:

- 100 MW – Pampa Tigre solar plant in Antofagasta
- 105 MW – Valle Escondido solar park in Atacama
- 109.2 MW – Ckani wind farm in Calama
- 160 MW – Llanos del Viento wind project in Antofagasta
- 156 MW – Puelche Sur wind facility, in the region of Los Lagos

The final portion of the portfolio, Copihue, consists of a 100 MW wind farm.

It is yet unclear whether the sponsor will finance Copihue at the same time as Huemul, although the loan includes the possibility of increasing the debt to include the portfolio's third phase if the sponsor chooses to. ■

Sponsors look to refi Peruvian solar project pair

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stake in the portfolio from Solarpack last September (PFR, 9/10).

Sumitomo Mitsui Banking Corp and **BNP Paribas** are understood to be among the banks mandated on the refinancing.

The two projects, built in 2012 by Solarpack and **X-Elio**, have long-term dollar-denominated power purchase agreements with the **Peruvian Ministry of Energy** that were awarded in the country's first renewable auction in 2010. The PPAs have 12.5 years left to run.

Construction was financed with a $185 million 18.5-year non-recourse loan from the **Overseas Private Investment Corp** (now known as the **US Development Finance Corp**). At the time, the cost of the projects was estimated at $251 million.

The majority of the equity in the two projects was previously held by Tawa Solar Fund, a vehicle managed by **Whitehelm Capital**. Solarpack bought the fund out of its stake for $51.5 million in May 2019, financing the acquisition with a $30 million bridge loan from **Santander** (PFR, 5/21, 9/10). ■

OPDE closes financing for Chilean duo

Spain's **OPDEnergy** has reached financial close on a wind farm and a solar project in Chile, bringing to an end a process that began in November of last year.

Sumitomo Mitsui Banking Corp arranged the $103 million seven-year debt package, with **Banco Security** providing the VAT facility.

Financial close was initially expected in January, but bankers thought the deal would not close until February or March. However, with the spread of Covid-19, the closing date was pushed back until mid-May (PFR, 4/27), and then to late June (PFR, 6/4).

"This financing is an important step for OPDEnergy in Chile. It will allow us to complete two major projects that will diversify the country's energy mix and will certainly contribute to the economic development of the region," said **Carlos Ortiz**, OPDE Chile's managing director, in a statement on August 13.

The financed projects are:

- Sol de Los Andes – a 104.3 MW solar project in the commune of Diego Almagro, Atacama
- Estrella – a 50 MW wind farm in La Estrella, O'Higgins

OHL, also a Spanish company, is handling engineering, procurement, and construction for La Estrella, with a €10 million ($10.88 million) contract, and will also be in charge of balance of plant. **Siemens Gamesa** is supplying the 11 wind turbines.

The facility is expected to be brought online by late 2020.

OPDE will build the Sol de Los Andes facility itself, fitting it with bifacial modules.

Both of the projects have 20-year dollar-denominated power purchase agreements with Chile's **National Energy Commission**, awarded during the country's 2016 auction. The projects must start fulfilling the PPAs by January 2021.

Legal advisers included:

- **Milbank**
- **Barros & Errázuriz**
- **Cuatrecasas**
- **Carey & Cia** ■

● LATIN AMERICA PROJECT FINANCE

Colombia's ISA issues bonds for transmission projects

Colombia's state-owned electric services company **Interconexión Eléctrica** (ISA) has issued its first ever green bond in the local market, raising Ps$300 billion ($79.7 million) to finance two transmission projects in the Caribbean.

BTG Pactual, **Credicorp Capital Colombia** and **Valores Bancolombia** acted as the placement agents for the issuance.

The deal, which was 2.4 times oversubscribed, was arranged in two tranches:

- Ps$160 billion ($42.56 million) nine-year bond priced at 6.33%
- Ps$140 billion ($37.24 million) 20-year bond priced at 3.7%

The deal closed on August 13.

The proceeds will be used to finance the development of two transmission projects in the Caribbean and ensure the interconnection of wind and solar assets to the grid.

The assets are:

- Costa Caribe – a 500 kV project in the departments of Cordoba, Sucre, Bolivar, Magdalena and Cesar
- Cuestecitas-Copey-Fundación – in the departments of Cesar, La Guajira, and Magdalena

The Costa Caribe asset comprises the Cerromatoso, Chinu and Copey substations as well as 229.3-miles (369 km) of transmission lines.

The other project includes the 500 kV Cuestecitas substation, the 133.6-mile (215 km) Copey-Cuestecitas transmission line and the 31-mile (50 km) Copey-Fundación line.

"We are working towards the decarbonization and flexibility of the energy matrix, not only in Colombia but in all the countries where we are present," said ISA's president **Bernardo Vargas Gibsone** in a statement on August 13. ■

Ituango lawsuit sparks governance crisis at EPM

Internal turmoil at Colombia's **Empresas Públicas de Medellín** over a proposed lawsuit against the construction companies in charge of its 2.4 GW Ituango hydro project could spell financial problems for the municipally-owned company.

Eight of the nine members of EPM's board of directors resigned from their positions two weeks ago after **Daniel Quintero**, EPM's president and Medellin's mayor, announced, without consulting them, that the company would be suing the contractors that worked on the Ituango project.

The board, which is traditionally made up of representatives of the private sector in the department of Antioquia, felt that the decision to take legal action was a political move by Quintero.

The situation was aggravated when, on August 13, **Fitch Ratings** downgraded EPM's credit rating one notch from BBB to BBB-. Fitch attributed the reassessment to "increased intervention by EPM's owner, the City of Medellin (BBB-/Negative), in the management of the company, which represents a deterioration of corporate governance controls at the company."

Creditors have expressed their concerns to EPM, as the downgrade will impact the company's loans and bank guarantees. This is especially worrisome at a time when the company is about to take over a portion of power distributor **Electricaribe** – **CaribeMar**. This transaction is expected to close by September 30 (PFR, 7/14).

"EPM needs financial stability to close the purchase," explains an industry insider in Bogota, noting also that the firm's influence extends far beyond the area around Colombia's capital into Latin America as a whole.

Besides its Colombian assets, EPM's investments include stakes in distribution companies in Panama (ENSA), and Guatemala (EEGSA) (PFR, 5/19, 4/22).

Quintero has appointed new members to the board to replace those that resigned, but EPM is now perceived as "politicized," says the industry insider.

Fitch's analysts agree, writing that "recent actions taken by the company are contrary to the Governability Agreement, signed on April 23, 2007, between the City of Medellin and EPM's management, in which the municipality agreed to respect the autonomy of EPM as an industrial and commercial enterprise of the state and to act exclusively through the board of directors."

"Recent actions taken by the company are contrary to the Governability Agreement, signed on April 23, 2007"

ITUANGO

Quintero announced a Ps$9 trillion ($2.38 billion) lawsuit against the builders of the Ituango project August 10 (PFR, 8/11).

According to EPM, the contractors took unnecessary risks that contributed to the problems the project faced. One of the groups, **CCCI**, which includes construction firms **Camargo Correa**, **Conconcreto** and **Coninsa-Ramon H**, responded with a letter to EPM denying the claims.

The other construction companies were:

- **Generación Ituango**, formed by engineering firms **Integral** and **Solingral**
- **Ingetec-Sedic**, a joint venture between two engineering companies

The Ituango project was expected to be the most important generation asset in Colombia when it was first put forward in 2010, covering between 15% and 20% of the nation's electric demand. However, landslides on the banks of the Cauca river stopped the project's development in April 2018. The following month, floods led to mass evacuations, leaving 600 homeless (PFR, 08/06/18).

Although the project was 87% complete, construction was put on pause indefinitely when Colombia's **National Authority of Environmental Licenses** ordered the suspension of development in June 2018.

EPM had to front the costs. The company now estimates those have risen to Ps$9 trillion, including machinery costs, financing costs, payments to the **Energy and Gas Regulatory Commission**, and estimated lost profits. ■

AES wins contract for Colombian solar park

AES Colombia, a subsidiary of **AES Gener**, will build the 59 MW (DC) San Fernando solar park in Colombia's Meta department, which will be owned by **Ecopetrol**.

Ecopetrol awarded the contract to AES through its subsidiary **Cenit Transporte y Logística de Hidrocarburos**, which is in charge of its oil and gas pipeline infrastructure in Colombia. AES will also be responsible for the asset's operations and maintenance.

Located in the Castilla La Nueva municipality, the project will supply Ecopetrol's San Fernando and Apiay oil storage and pumping stations, as well as the Castilla and Chichimene oil fields, for 15 years.

Construction is expected to begin in October of this year, with commercial operations penciled for the first part of 2021.

"We are convinced that the coexistence between all sources of generation is possible, that's why the construction of our second solar park is a further step towards the energy transition and us having 300 MW of renewable installed capacity by 2022," said Ecopetrol's president, **Felipe Bayón**, in a statement on August 18.

"The construction of our second solar park is a further step towards the energy transition and us having 300 MW of renewable installed capacity by 2022"

San Fernando is Ecopetrol's second solar park. Ecopetrol unveiled it last October after bringing online its first unit, the 21 MW Castilla Solar Park (PFR, 2/20).

AES Colombia also built the Castilla project, whose output Ecopetrol buys under a 15-year power purchase agreement to supply its Campo Castilla oil field.

Ecopetrol has also said it will develop an 80 MW solar project to supply its Campo Rubiales oil field (PFR, 1/22/19).

The company expects to build four other solar projects in the departments of Meta, Santander, Huila, and Antioquía by 2022. ■

São Paulo metro renewables project in works

São Paulo's metro administrator is preparing to contract out the construction of renewable generation on its facilities.

The main goal is to reduce the company's electricity bill, which is its second-highest cost. It will sell any surplus capacity to power distributors.

The company, **Metrô de São Paulo**, issued a request for proposals earlier this year to commission studies, receiving 14 valid responses.

The project is expected to generate at least 120 MW, around half of which will be used to power trains and stations on the 1-Azul, 2-Verde, 3-Vermelha and 15-Prata lines. The remaining capacity would be sold into the market to generate revenues for the metro and its commercial partner.

Metrô de São Paulo can provide roughly 200,000 square meters of rooftop area for the installation of solar panels. The company will also consider assets located in other regions of the country.

The qualifying bidders have 120 days to design their solution, and the best study will be used as the basis of the procurement process for the construction of the project. The metro will consider economic, financial, social, environmental and technical criteria.

The consortia and individual companies selected to prepare the studies are:

- **Enel X**, **Radar PPP**, **KMR Energia** and **Cescon & Barrieu**
- **Soma Energias Eirelli** (Soma) and **Ventus, Inovação & Energia** (VIE)
- **Transformadores e Serviços de Energia das Américas**
- **GD Solar Holding**
- **Modus Engenharia e Serviços**
- **CRA Engenharia de Infraestrutura**
- **Solar Metrô De São Paulo Consortium**
- **BRA Energia**, **Edelstein Advogados**, **Gabriel Tabosa De Castro ME** and **XVV Advogados**
- **Nova Engevix Engenharia**
- **AES Tietê Energia**
- **Cobra Brasil Serviços, Comunicações e Energia**
- **Geração Metrô SP Consortium**
- **KL Serviços de Engenharia** and **Yasser Holanda Advogados Associados**
- **QUANTA**, **SMF**, **ORV** and **AEA** ■

AES develops large hybrid asset in Chile

AES Gener has begun the permitting process for an 862.5 MW project that will combine wind and solar technology in Chile's Antofagasta region.

The project, known as Terra Energia Renovable, is located in the Taltal commune and will require an investment of $750 million, according to filings with Chile's **Environmental Evaluation Service**.

The wind portion will be fitted with 50 wind turbines totaling 350 MW with solar accounting for the remaining 512.5 MW.

Construction is expected to begin in April 2022. AES Gener submitted environmental paperwork on August 12.

AES recently reached an agreement to bring forward the termination of power purchase agreements with mining concern **BHP Group** for one of its coal-fired plants in the country as it moves forward with its decarbonization strategy (PFR, 8/10).

Meanwhile, AES is investing in renewable assets including its Andes Solar complex, the 100 MW Los Olmos wind farm and the 67 MW Mesamavida wind farm (PFR, 6/27). ■

FAST FACT

120 MW

The amount of renewable energy São Paulo's metro administrator is procuring to reduce its electricity bill, which is its second-highest cost.

LATIN AMERICA PROJECT FINANCE

Solek, oEnergy grow Chilean solar pipelines

Developers **Solek** and **oEnergy** have separately added two small-scale solar projects in the Chilean region of Maule to their existing project backlog.

Solek is working on a 10.66 MW (DC) project in the commune of Parral, while oEnergy has begun the approvals process for a 3.6 MW project in Linahres.

Both companies have already begun work on several other small-scale projects in the country.

Solek's Parral project, which is expected to require an investment of $10.65 million, is the developer's eighth distributed solar project and will bring the capacity of its small-scale solar portfolio up to 59.93 MW (DC). Construction was expected to begin in July.

Solek's other assets are:

- Colina – a 10.56 MW (DC) project in the Metropolitan region
- Medialuna – a 10.63 MW (DC) project in the Metropolitan region
- Quilmo – a 10.56 MW (DC) project in the region of Ñuble
- Trupan – a 7 MW (DC) project in the Biobío region
- Villa Longaví – a 10.52 MW (DC) project in the region of Maule
- Aeropuerto – 7 MW (DC) project in the region of Maule (PFR, 6/9)

Picaflor Azul, the latest project to be developed by oEnergy, is expected to cost $4 million. Construction is penciled to begin in March 2021.

The developer's other projects include the 12 MW (DC) El Pitotoy project in Valparaiso and the 7.9 MW (DC) Los Cisnes project in the Metropolitan region (PFR, 7/24).

All of these small-scale projects will be eligible for regulatory benefits under Chile's PMGD (*Pequeños Medios de Generación Distribuida*) program. ■

FAST FACT

$10.65 million

The cost of the 10.66 MW (DC) Parral solar project in the Chilean region of Maule. Construction was expected to begin in July.

Engie develops second Chilean wind project

Engie Energia Chile has begun the permitting process for a 204.6 MW wind farm in Antofagasta that will be only its second wind farm in the country.

Located in the commune of Calama, the Vientos del Loa wind project will require an investment of $246 million, according to filings with Chile's **Environmental Evaluation Services**.

The project will be fitted with 33 wind turbines, each with 6.2 MW of capacity. The project's output will be injected into the grid through a 16.4-mile (26.5 km) transmission line between the Moctezuma and the Calama substations.

Engie submitted environmental paperwork for the project on August 18 and expects construction to start by June 2021.

Engie's only other wind project in Chile so far is the 151.2 MW Calama wind farm, located near the city of Calama in Antofagasta, which has an estimated total cost of $152.9 million.

Development finance institution **IDB Invest** is in the process of structuring a $125 million 12-year loan to finance the Calama project. The debt package will be split between a $110 million tranche and a $15 million portion from IDB's Clean Technology Fund (PFR, 4/27).

Engie announced the Calama project in October 2019 as part of its plan to build a 1 GW portfolio of wind and solar assets in Chile (PFR, 10/7/19).

The development activity is part of Engie's plan to switch from coal to renewable energy in Chile, which was reinforced in June 2019 when the company reached an agreement with the Chilean government to shut down its coal-fired plants.

Engie retired units 12 and 13 of its 439 MW coal-fired plant in Tocopilla, Antofagasta, in June, and units 14 and 15 are expected to cease operations by January 2022. The Calama wind farm will replace the output of Tocopilla units 14 and 15.

On December 9, Engie announced that it would shutter another two coal-fired plants – the 162 MW Mejillones CTM1 and 172 MW Mejillones CTM2 facilities, both in Antofagasta – by late 2024.

Meanwhile, Engie is also developing solar assets in the country. The solar projects that have so far become public are:

- Capricornio – 97 MW in Antofagasta
- Tamaya – 120 MW (DC) in Antofagasta
- Los Loros – 54 MW in Copiapó
- Andacollo – 1.3 MW in Copiapó ■

PEOPLE & FIRMS

Peru appoints new deputy minister of energy

Jaime Gálvez Delgado has been appointed as deputy minister of mines and energy in Peru, replacing **Augusto Cauti Barrantes**, who had been in the position since May of last year.

Gálvez Delgado took office and Cauti Barrantes's resignation became effective on August 15. Cauti Barrantes had taken the title after the previous official stepped down in April 2019.

Gálvez Delgado worked in the private sector at mining companies **Gold Fields** and **Compañía Minera Antamina** before joining the Ministry of Economy and Finance in November 2017.

His appointment comes after **Rafael Belaunde** assumed the position of minister of mines and energy in a government reshuffle (PFR, 7/20). ■

Storage IPP continues hiring spree

Battery storage-focused independent power producer **Broad Reach Power** has made several recent hires to senior positions, including two in-house lawyers who previously worked at **Calpine Corp**.

The new additions, who all started this month, are:

- **Sally Shaw** – general counsel and executive vice president, legal
- **Deanne Boreni-Thomas** – director of legal operations
- **Justin Alvord** – director corporate development

Incoming GC Shaw previously spent two years in the top legal job at **Jefferson Gulf Coast Energy Partners**, which is majority-owned by **Fortress Transportation and Infrastructure Investors**. Before that, she had worked at Calpine for many years, most recently as managing counsel.

In her new position, she reports to Broad Reach's managing partner and CEO **Steve Vavrik**.

"With two decades of experience working in energy in Houston, Sally will be a tremendous asset as we continue to add to our Houston headquarters," said Vavrik in an August 18 announcement.

Reporting to Shaw in the legal department is Boreni-Thomas, who also previously worked at Jefferson Energy and Calpine.

Alvord, meanwhile, joins from **Enel Green Power North America**, where he had worked since 2013 and held the title of director, business development. He began his career in finance at investment manager **T Rowe Price**.

Alvord reports to **Justin Amirault**, vice president of corporate development, who himself joined Broad Reach earlier this summer (PFR, 6/3).

Broad Reach, a portfolio company of **EnCap Investments** and **Yorktown Partners**, has been steadily adding to its ranks (PFR, 4/29)

In March, it bolstered its trading and origination team with the hire of **Narsimha Misra** as executive vice president. Misra had been working at **Financial Machines** – the energy consulting firm he co-founded in 2016. He has previously occupied trading, risk management, and structured products positions at **Pacific Summit**, **Bank of America Merrill Lynch**, **Credit Suisse**, and **Enron**. ■

New role for Nelson Mullins partner

Law firm **Clark Hill** has hired former Nelson Mullins lawyer **Steven Shpharber** to its Washington DC-based environment, energy and natural resources group.

"Steve is a terrific addition to our national team of energy lawyers given his broad experience across the energy sector, particularly renewables, as well as his government and corporate sector experience," said **Rod Williamson**, business unit director for the practice group in a statement on August 17.

Shpharber had joined Nelson Mullins in 2017 and made partner earlier this year. He previously worked in-house at **PJM Interconnection** and the US **Federal Energy Regulatory Commission** and in private practice at **McGuireWoods**.

At PJM, he worked on the transmission operator's strategy for integrating distributed energy resources into its wholesale markets and was lead attorney on several energy storage cases. ■

ValueAct's Ubben backs microgrid start-up

Schneider Electric and San Francisco-based investment firm **Huck Capital** have teamed up to create a company that will deliver energy-as-a-service to commercial and industrial clients, with backing from activist investor **Jeffrey Ubben**'s new impact investing fund.

"In the current crisis companies need to conserve cash, and our solution will enable them to decarbonize and reduce energy costs"

The new company will develop and operate on-site microgrids with a capacity of up to 5 MW (DC).

"We know in the current crisis companies need to conserve cash, and our solution will enable them to decarbonize and reduce energy costs - while freeing up capital to keep their business running," said the new company's CEO, **Jose Lorenzo**. "Customers pay for resilient and sustainable energy outcomes at a cheaper rate without the hassle of investing in and operating microgrids."

The lead investor behind the partnership is the Spring Fund of **Inclusive Capital Partners**, an investment firm that was established this year by the following co-founders:

- Jeffrey Ubben – the activist investor behind the $16 billion hedge fund **ValueAct Capital**
- **Lynn Forester de Rothschild** – the CEO of **EL Rothschild**
- **George Hamel** – co-founder of ValueAct
- **Eva Zlotnicka** – a former responsible investment researcher at **UBS** and **Morgan Stanley**, whom Ubben recruited to ValueAct as a managing director in 2018

"Businesses want to maximize their energy independence and minimize their carbon footprint"

"Businesses want to maximize their energy independence and minimize their carbon footprint," said **Steve McBee**, founder and CEO of Huck Capital. "This model supercharges momentum for a zero carbon future and provides customers the clean, affordable, and reliable solutions they demand."

McBee is the former president and CEO of **NRG Home**, the residential solar division of **NRG Energy**, as well as **McBee Strategic Consulting**. ■

PEOPLE & FIRMS

Wright steps down from HSBC

James Wright is stepping down from his role as managing director at **HSBC**, where he led the bank's activities in renewable energy, encompassing M&A, debt financing and tax equity.

He is leaving the bank to head a renewable energy lending platform for a major global institution in North America.

Wright is a long-standing HSBC banker, having started there in 2002 and worked in London, the Middle East and the US.

Eastwick departs from CleanCapital

Matt Eastwick has left his role as chief investment officer of commercial and industrial-scale solar investment firm **CleanCapital**.

He departed earlier this month after three years with the private equity-backed start-up. Details about his future plans could not immediately be learned.

Eastwick joined CleanCapital in September 2017 after a short spell as managing director at **Global Environment Fund** (PFR, 10/10/17).

CleanCapital went on to achieve a number of financing milestones with a host of different investors.

CarVal Investors announced a $250 million equity commitment in 2018 (PFR, 4/9/18) and **BlackRock** took a stake in the company the following year (PFR, 4/2/19).

CleanCapital also raised non-recourse project finance debt in 2019 from **Santander** and **CIT Bank** (PFR, 6/17/19). **Credit Suisse** provided a $300 million warehouse facility shortly thereafter (PFR, 7/18/19).

Orion adds investment optimizer

Middle-market energy infrastructure debt investor **Orion Energy Partners** has hired **Matthew Kondratowicz** to its investment performance and optimization group.

"They are at the forefront of the energy transition"

Kondratowicz joined the firm last month at the rank of senior vice president, having previously been advising the company as a third-party consultant, including on its recent Bakersfield Renewable Fuels (BRF) investment.

Orion teamed up with developer **Global Clean Energy Holdings** and co-investors **GCM Grosvenor** and **Voya Investment Management** on the BRF deal, which involved retrofitting an oil refinery in Bakersfield, California, to produce renewable diesel.

Kondratowicz previously spent several years at **CSL Capital Management**, a private equity firm focusing on energy services – most recently as managing director. He has also worked in investment-related positions at **Deutsche Bank Masdar Cleantech Fund** and **Citi Sustainable Development Investments**.

Orion announced a slew of new hires in June, as the credit fund manager prepares to deploy more than $1 billion (PFR, 6/25).

Orion is particularly active in higher-yielding sectors adjacent to traditional power and renewables, such as energy services, renewable fuels, landfill gas and waste-to-energy. "They are at the forefront of the energy transition," says a managing director at a European infrastructure fund manager.

THE BUZZ

Spotlight on grid reliability amid California blackouts

As power market and policy experts quarrel over the reasons for California's first rolling blackouts in 19 years, renewable energy project developers and financiers spy opportunities.

The power problems, which come as parts of the state feel the world's hottest recorded temperatures in 100 years (130 °F), bring the issue of grid reliability to the forefront – whatever the precise causes may be.

Capital Dynamics and **Tenaska** have used the occasion to make the case for battery storage with the announcement of nine new standalone storage projects totaling 2 GW/8 GWh in California's highest load centers.

"Blackouts are a reminder that storage is needed and there is complete consensus around that by the market," says **Benoit Allehaut**, a managing director in Capital Dynamics' clean energy infrastructure team.

CapDyn will be the long-term owner of the storage projects, which are slated to come online between 2022 and 2023, and Tenaska will have an option to co-invest.

"What we're trying to do is a real estate play," Allehaut tells *PFR*. "The interconnection points are right where the load is on the California coast, so we wanted to build storage where coastal thermal power plants are closing. Anybody who owns thermal generation in California understands that, due to renewable portfolio standards, there is a certain shelf life."

However, the retirement of California's existing gas-fired plants is not going to happen overnight, and in some cases is being postponed rather than brought forward.

Among the coastal gas-fired plants that have been slated to retire for some time now are **GenOn Energy**'s Ormond Beach and Ellwood plants. However, the specter of grid instability means they are being kept online past their retirement dates and GenOn is even in the market to refinance them (see story, page 1).

"If you own a gas-fired generation plant in California today you're very happy," says **Alex Wernberg**, managing director and head of power project finance at **MUFG**, who is based in California. "Power prices are low during the middle of the day, but if you watch the spike as solar comes off later in the day, you're getting compensated for that reliability. Ultimately, batteries will intersect some of that, but that's very expensive to do all with batteries. Gas-fired generation is still going to play a significant role in the country's transition to renewables."

