

Power Finance & Risk

Exclusive Insight on Power M&A and Project Financing

● ERCOT DISPATCH

Brazos gets green light for interim DIP draw

Brazos Electric Power Cooperative has secured Court approval to access a portion of a proposed \$350 million debtor-in-possession financing. *Page 2*

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Cubico offloads Brazilian wind duo

Cubico Sustainable Investments has sold two wind farms in Brazil to **AES Brasil**, the local subsidiary of **AES Corp.** *Page 8*

● PEOPLE & FIRMS

Hull Street snaps up ex-Cypress Creek staffers' outfit

Hull Street Energy has agreed to buy **Foundation Solar Partners**, a solar development firm set up by ex-Cypress Creek Renewables officials. *Page 9*

Biden administration plots path for California offshore wind

Taryana Odayar

The Biden administration has identified areas off California's central and northern coasts for the development of offshore wind projects and is preparing to lease them out in an auction targeted for 2022.

The potential wind energy areas (WEAs) that are being advanced could become the site of up to 4.6 GW of offshore wind projects, which would power up to 1.6 million homes.

The Biden administration is aiming to advance two potential WEAs in the Pacific Ocean, which it plans to roll into a single lease auction, penciled in for mid-2022.

The first potential WEA is the Morro Bay 399 Area, located off California's central coast, northwest of Morro Bay. The area spans 399 square miles and would be able to support 3 GW of offshore wind generation. *PAGE 8»*

Ormat to buy Nevada geothermal, transmission assets

Alfie Crooks

Ormat Technologies has agreed to acquire a portfolio of operational and development-stage geothermal assets in Nevada and an associated transmission line from **Terra-Gen**.

Ormat will pay \$171 million for the TG Geothermal Portfolio, which comprises two operational, contracted geothermal plants, a greenfield, development-stage

geothermal asset and an underutilized transmission line.

The deal is expected to close in the second half of 2021, subject to regulatory and other closing conditions.

As part of the agreement, Ormat will assume about \$206 million of debt and lease obligations attached to the assets.

"To maximize our re- *PAGE 5»*

Debt, TE secured for 2.7 GW California solar complex

Taryana Odayar

The sponsor of the 2.7 GW Westlands Solar Park (WSP) in California has secured debt and tax equity financing for the project's first phase.

WSP's sponsor, Los Angeles-based private equity fund manager **CIM Group**, is bringing the project online in phases in order to meet the needs of public and private utilities and other energy consumers. *PAGE 7»*

BNDES to finance 700 MW solar project

Anna Cole-Bailey

Brazil's **National Bank for Economic and Social Development** (BNDES) is arranging financing for what is being touted as the largest solar complex under construction in Latin America.

The Janaúba Photovoltaic Complex, comprising 14 solar projects, is located in the municipality of Janaúba in the north of Minas Gerais. It will *PAGE 21»*

If you cannot measure it, you cannot improve it



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● ERCOT DISPATCH

BRAZOS GETS GREEN LIGHT FOR INTERIM DIP FINANCING

Brazos Electric Power Cooperative has secured US Bankruptcy Court approval to access the first tranche of a proposed \$350 million debtor-in-possession (DIP) financing package.

Brazos, Texas's oldest and largest electric cooperative, filed for Chapter 11 protection on March 1 after receiving a \$2.1 billion invoice from Ercot for power purchased during winter storm Uri, when prices soared to the market cap of \$9,000/MWh ([PFR, 3/2](#)).

After filing a motion earlier this month seeking access to a proposed \$350 million DIP financing package provided by a **JP Morgan**-led consortium, Brazos has now won access to a \$150 million portion of the package, on an interim basis, according to paperwork filed with the court on May 19.

"The interim relief granted herein is necessary to avoid immediate and irreparable harm to the Debtor and its estate pending the Final Hearing," reads an excerpt from the filing.

The remainder of the funds will be considered by the court at a later date.

Brazos says that the proposed DIP fi-

ancing package will help it meet collateral-posting requirements with Ercot as well as hedging and trading counterparties, that are likely to increase as it heads into the hot Texas summer months, when electricity demand peaks.

The proposed package will also help fund the purchases of gas and power on the spot and day-ahead markets and maintain sufficient working capital, including capital expenditures, according to Brazos.

Brazos selected the JP Morgan-led DIP financing proposal following a marketing process that was run with the help of consultancy **Berkeley Research Group**.

The parties had reached out to or received inquiries from 46 potential DIP financing providers, 27 of which executed non-disclosure agreements and 12 of which went on to submit non-binding indicative term sheets, according to court documents.

Three binding proposals were shortlisted, including the one from JP Morgan, which was ultimately selected.

Norton Rose Fulbright is acting as bankruptcy counsel to Brazos. ■

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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.

Generation Sale DATABASE

| Seller | Assets | Location | Adviser | Status/Comment |
|--|---|------------------------|-----------------------|--|
| AES Andes | Guacolda (764 MW Coal, 50%) | Chile | | AES Andes found a new buyer for the stake as of May 14 (PFR, 5/24) |
| BNDES | Companhia de Eletricidade do Amapá | Brazil | | The auction is expected to take place on June 18 (PFR, 5/24). |
| Broad Reach Power | Broad Reach Power | US | Citi | Marketing materials circulated in April (PFR, 5/10). |
| Canadian Pension Plan Investment Board | Puget Holding Company (10%) | Washington | JP Morgan | The bank has taken final bids as of the second week of May and expects to close the sale by the end of the summer (PFR, 5/17). |
| Clearway Energy Group | Portfolio (District energy systems) | US | BofA | The banks have been mandated for the sale of the assets, as of the second week of May (PFR, 5/17). |
| Basalt Infrastructure Partners, DCO Energy | DB Energy Assets | US | TD Securities | |
| CPE Participacoes | Serra Verde (231.3 MW Wind) | Brazil | | AES Brasil has won the approval to purchase the assets, as of mid-May (PFR, 5/24). |
| Columbia Basin Hydropower | Banks Lake (500 MW Storage) | Washington | Green Giraffe | The bank distributed teasers in April (PFR, 5/17). |
| Constellation Holdings, Peach Power | Albany Green Energy (50 MW Biomass, 94%) | Georgia | | ReGenerate expects to get the purchase approved by June 28 (PFR, 5/24). |
| Cubico Sustainable Investment | Portfolio (Wind 158.5 MW) | Brazil | | AES Brasil bought the assets as of the third week of May (see story, page 8). |
| Cypress Creek Renewables | Cypress Creek Renewables | North Carolina | Morgan Stanley | Eight bidders have been identified during the second round, as of mid-May (PFR, 5/24). |
| Ecoplexus | Ecoplexus | US | PJ Solomon | Ecoplexus is offering a minority stake in the company as of the last week of March (PFR, 4/5). |
| EDP Renewables | Bright Stalk (205 MW Wind, 55%) Harvest Ridge (200 MW Wind, 55%) | Illinois | Jefferies | Greencoat Capital has agreed to purchase the interests in a deal set to close in June (PFR, 4/19). |
| Elawan Energy | Portfolio (350 MW Wind) | US | | Orix Corp agreed to purchase majority stakes in the portfolio as of March 26. FERC approval is expected by April 16 (PFR, 4/5). |
| Glidepath Power Solutions | Project Wolf (3.1 GW Storage) | US | Guggenheim Securities | Teasers were distributed during the week of April 19 (PFR, 5/3). |
| John Laing | John Laing | US | | KKR's takeover of John Laing has been approved and Equitix has emerged as a co-bidder, as of mid-May (PFR, 5/24). |
| Kore Power | Kore Power | US | CohnReznick Capital | The sponsor is looking for an equity investment, with the process being in the first round of bidding as of late April (PFR, 5/3). |
| Diamond Generating | Tenaska Gateway Generating Station (854 MW Gas, 67.8%) | Texas | Whitehall & Co | The bank distributed teasers in April (PFR, 5/17). |
| Photosol | San Juan Solar I (299 MW Solar, 130 MW Battery) | New Mexico | BNP Paribas | Second round bids were due on March 19 (PFR, 3/29). |
| Prospect14 | Project Anthracite (1.3 GW Solar, Storage) | Pennsylvania, Virginia | Jefferies | Marketing materials for the sale process circulated during the week of April 26 (PFR, 5/3). |
| PSEG Power | Solar Source (365 MW Solar) | US | Goldman Sachs | Quattro Solar has agreed to purchase the assets in a deal that will close during this year's third quarter (PFR, 5/10). |
| Source Renewables | Community Solar Portfolio (23 MW) | New York | | Sale launched in third week of March (PFR, 3/29). |
| Source Renewables | Community Solar Portfolio (22 MW) | New York | | Letter of intent signed with potential buyer as of March (PFR, 3/29). |
| Southern Power | Partin Solar (50 MW Solar) | North Carolina | | The sponsor has recirculated teasers for the project as of the second week of March (PFR, 3/15). |
| Stonepeak Infrastructure Partners | RED-Rochester district energy system | New York | | SDCL Energy Efficiency Income Trust has closed the purchase, as of May 21 (see story, page 5). |
| Terra-Gen | TG Geothermal Portfolio (Geothermal, Transmission) | Nevada | | Ormat agreed to purchase the portfolio as of May 24, with closing penciled for the second half of 2021 (see story, page 1). |
| Voltaia | Vilas (186.7 MW Wind) VSM2 (128 MW Wind) VSM4 (59 MW Wind) | Brazil | | Copel inked an agreement to buy the assets in mid-May (PFR, 5/24). |

● 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.

Live Deals: Americas

| Sponsor | Project | Location | Lead(s) | Deal Type | Loan Amount | Tenor | Notes |
|--|--|------------------------|---|----------------------|---------------|--------|---|
| APG, Celeo Redes | Colbún Transmision | Chile | JP Morgan | Bond | \$1bn | | The bank is trying to syndicate the bridge loan to the bond, eyeing the closing of the bridge in two weeks (PFR, 5/10). |
| 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 | | \$140m-\$150m | | The sponsor has mandated the banks as of early May (PFR, 5/17). |
| CIM Group | Westlands Solar Park (2.7 GW Solar) | California | Deutsche Bank | Term loan | | | The sponsor secured the financing as of May 26 (see story, page 1). |
| | | | | Tax equity | | | |
| Competitive Power Ventures | St Charles Energy Center (745 MW Gas) | Maryland | MUFG, BNP Paribas, Credit Agricole, Mizuho | Term loan B | \$350m | 7-yr | The deal was expected to close in the second week of May (PFR, 5/17). |
| | | | | Ancillary facilities | \$100m | 6.5-yr | |
| 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 | Portfolio (33 MW Fuell cell) | US | | Tax equity | \$205m | | The sponsor is raising financing as of late March (PFR, 4/5). |
| Distributed Solar Development | Portfolio (Solar) | US | Bank of America | Tax equity | \$85m | | The sponsor secured the financing as of the third week of May (see story, page 7). |
| Elera Renováveis | Janaúba (700 MW Solar) | Brazil | BNDES | Term loan | \$277.8m | | BNDES has approved financing as of May 21 (see story, page 1). |
| Exelon Generation | West Meday II (194 MW Gas) | Massachusetts | Credit Agricole, SMBC, Siemens Financial Services | Non-recourse loan | \$150m | 5-yr | The sponsor secured the debt as of the third week of May (see story, page 6). |
| Generadora Metropolitana | Portfolio (600 MW Solar, Gas) | Chile | Credit Agricole | Term loan | \$700m-\$1bn | | The sponsor reached out to banks for the debt package as of April (PFR, 5/10). |
| GenOn Energy | Chalk Point (1.6 GW Gas, Oil) | Maryland | Investec | Term loan A | \$305m | 5-yr | The sponsor launched the financing as of the third week of March and expects to close by late March or early April (PFR, 3/22). |
| | Dickerson (312 MW Gas, Oil) | | | | | | |
| Interchile | Cardones-Polpaico (Transmission) | Chile | JP Morgan, Goldman Sachs, Scotiabank | Bond refinancing | \$1bn | | The sponsor has selected the banks for the refinancing of a transmission line (PFR, 5/24). |
| 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 | | |
| Key Capture Energy | Portfolio (250 MW Storage) | Texas | | | | | The sponsor is conducting pre-marketing for debt as of February (PFR, 2/15). |
| 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 due on March 19 (PFR, 3/15). |
| | | | | Ancillary facilities | \$400m | 5-yr | |
| Matrix Renewables | Portfolio (81.7 MW (DC) Solar) | Colombia | IDB Invest | Term loan | \$31m | 18-yr | The sponsor is securing debt arranged by IDB Invest as of mid-May (PFR, 5/24). |
| | Portfolio (154 MW (DC) Solar) | Chile | BNP Paribas | | | | The sponsor mandated the bank for a financing in February (PFR, 5/17). |
| NextEra Energy Resources | Sky River (77 MW Wind) | California | | | | | The sponsor is arranging financing for the asset as of the third week of May (see story, page 7). |
| Omega Geração | Chui (600.8 MW Wind) | Brazil | BTG Pactual | Debentures | \$183m | | The sponsor is preparing to issue the debentures to refi the complex as of the second week of March (PFR, 3/15). |
| Savion | Westoria Solar (200 MW Solar) | Brazoria County, Texas | CIT Bank, ING Capital | Term loan | \$79m | C+5yr | The sponsor is working on the financing as of February (PFR, 2/22). |
| | | | | Tax equity | \$95m | | |
| | | | | Ancillary facilities | \$38m | | |
| Sonnex, Cox Energy America | Sonnex Meseta de los Andes (160 MW Solar) | Chile | SMBC | Term loan | \$120m | | The sponsor closed the financing as of the third week of May (see story, page 20). |
| Terra-Gen | Edwards Sandborn (1,118 MW/ 2,165 MWh Solar, Storage) | California | | Construction loan | \$1bn | | The developer approached banks for the financing as of early May (PFR, 5/10). |

New or updated listing

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NORTH AMERICA MERGERS & ACQUISITIONS ●

Stonepeak closes sale of NY cogen

Stonepeak Infrastructure Partners has completed the sale of its RED-Rochester district energy system in New York state to **SDCL Energy Efficiency Income Trust**.

The London-listed investment firm has paid \$177 million in cash

for the lightly regulated utility, which provides contracted generation, steam, natural gas and refrigeration services to more than 100 commercial and industrial customers within the 1,200-acre Eastman Business Park in Rochester.

SDCL funded the acquisition with existing cash reserves and revolving credit facilities. RED's project finance debt, which stands at about \$84 million, will stay in place.

The two companies agreed to the transaction in April, after RED was put up for sale in 2019 and then again in 2020, as reported by *PFR* ([PFR, 4/6, 11/25/19](#)).

The legal advisers on the sale are:

- **Read & Laniado**
- **Whiteman Osterman & Hanna**
- **Wilson Sonsini Goodrich & Rosati**

Other advisers are:

- **Advisian** – technical
- **Aon** – insurance
- **Deloitte** – financial and tax
- **Duff & Phelps** – valuation and credit ■

Ormat to buy Nevada geothermal, transmission assets

FROM PAGE 1 turns, we plan to use our strong balance sheet and low-cost capital sources to reduce over time the cost of assumed debt," said Ormat's CEO, **Doron Blachar**.

Citi is acting as financial adviser to Ormat on the deal, while **Norton Rose Fulbright** is providing legal counsel.

The operational assets comprise the 56 MW Dixie Valley geothermal facility in Churchill County and the 11.5 MW Beowave geothermal facility in Eureka County.

Dixie Valley sells its output to **Southern California Edison** under a long-term power purchase agreement expiring in 2038, while Beowave has a contract with **NV Power** expiring in December 2025.

Ormat is also acquiring the rights to a greenfield geothermal facility called Coyote Canyon, which is located adjacent to the Dixie Valley plant, as well as an underutilized transmission line connecting Dixie Valley to the **California Independent System Operator** market.

The transmission line can handle between 300 MW and 400 MW of 230 kV electricity and will enable Ormat to transfer additional capacity from Nevada to the CAISO market in the future, subject to third-party grid connectivity.

"This transaction aligns with our strategic goal of enhancing our geothermal portfolio through M&A activities," said

Blachar. "We are confident that we can leverage our distinctive core capabilities to unlock value by achieving synergies and enhancing generation and efficiency of the acquired assets."

Through efficiency and productivity upgrades, Ormat plans to increase the revenue and Ebitda generated by the operating assets by more than 20% over the next four years.

It expects both plants to generate \$55 million of revenue and about \$37 million of Ebitda in 2022.

The company also plans to re-finance the assets and expand them by utilizing nearby green-field resources.

Terra-Gen secured a \$268

million loan for Dixie Valley in 2010 ([PFR, 9/30/10](#)). The developer and project sponsor was then owned by **ArcLight Capital Partners** but was acquired by **Energy Capital Partners** in 2015.

ECP recently reduced its stake in the renewables developer to 50% by selling the other half to **First Sentier Investors** ([PFR, 3/24/21](#)). Earlier this year, it raised a \$1.2 billion continuation fund to house its remaining stake in Terra-Gen ([PFR, 4/6](#)).

ArcLight originally acquired the Dixie Valley and Beowave plants in 2007 from **Caithness Energy** ([PFR, 11/2/07](#)). Citi advised on the acquisition financing at the time ([PFR, 11/30/07](#)). ■

PPA PULSE ●

Pattern secures PPA for Western Spirit

Pattern Energy has inked a power purchase agreement with a German utility for its Western Spirit wind portfolio in New Mexico.

Uniper has signed a 15-year contract for up to 219,000 MWh of electricity per year from the 1,050 MW wind portfolio, which is due online at the end of this year.

"We provide customized energy solutions that collectively address both reliability-of-sup-

ply and environmental concerns, which is why we're happy to be working with Pattern Energy to bring additional renewable generation benefits to New Mexico and other western states," said **Marc Merrill**, president & CEO of Uniper North America.

At the start of this year, Pattern closed a \$2 billion project financing for the Western Spirit wind portfolio and associated 150-mile 345 kV alternating-current transmission line, as previously

reported ([PFR, 1/5, 10/12](#)).

The transmission line will carry the output of the four wind farms from the counties of Guadalupe, Lincoln and Torrance to the state's largest city, Albuquerque.

The wind projects comprise the 324 Clines Corners, 105 MW Duran Mesa, 272 MW Tecolote and 349 MW Red Cloud facilities.

The transmission line is being developed jointly between Pattern Energy and the **New Mex-**

ico Renewable Energy Transmission Authority. The **Public Service Company of New Mexico** will acquire and operate the transmission once it is completed ([PFR, 5/2/19](#)).

PAGE 21»



Marc Merrill

● RFP ROUNDUP

California utilities to procure 11.5 GW under latest PUC proposals

The **California Public Utilities Commission** has issued two proposals, both of which would require utilities in the state to procure at least 11.5 GW of new generation between 2023 and 2026.

The proposals are targeted at integrating more renewable generation in the state in order to meet its clean energy goals, including grid reliability and a 38 million metric ton greenhouse gas target for the electric sector by 2030.

The new generation will need to be able to respond to extreme weather events and replace capacity from more than 3.7 GW of retiring gas-fired plants as well as 2.2 GW of output from **Pacific Gas and Electric's** retiring nuclear Diablo Canyon Power Plant.

The first proposed decision comes from California PUC administrative law judge **Julie Fitch**, while the alternative proposal comes from California PUC commissioner **Clifford Rechtschaffen**.

The California PUC's five commissioners will vote to approve one or the other of the two proposals on June 24.

THE PROPOSALS

Fitch's proposal requires that about 90% of procurement comes from non-fossil fuel-fired resources, while an additional 1 GW to 1.5 GW of generation must come from efficiency improvements, upgrades, expansions or repowerings at existing or mothballed fossil fuel-fired plants as an alternative to diesel backup generation or the continued use of inefficient gas-fired units.

Meanwhile, projects located in disadvantaged communities will be limited to those that reduce greenhouse gases and pollutant emissions by requiring specified amounts of green hydrogen or by adding energy storage.

The alternative proposal requires that a slightly higher percentage of procured generation comes from non-fossil fuel-fired resources, at about 95%, with an additional 500 MW of capacity to come from efficiency improvements, upgrades or expansions at existing fossil fuel-fired plants.

It precludes any fossil-fueled projects in disadvantaged communities, and does not allow repowering at mothballed or retired sites.

It also allows utilities to procure an additional 300 MW of fossil fuel-fired capacity at existing sites as long as they commit to being powered with 30% green hydrogen by 2026 and 50% green hydrogen by 2031.

Both proposals require at least 2.5 GW of zero-emitting resources to replace the generation from Diablo Canyon alone.

The procurement ordered in both proposals is in addition to the 3,300 MW of generation that the California PUC had previously ordered to come online between 2021 and 2023, as well as the 1,325 MW of energy storage required under Assembly Bill 2514 and an estimated 1,500 MW that will be procured as a result of two recent decisions aimed at mitigating extreme weather events and summer reliability.

The latest proposed procurement also adds to the 4,000 MW of generation that is already contracted to come online between now and August 2024, in line with other state energy programs, such as the Renewables Portfolio Standard. ■

Indiana utility launches RFP

Northern Indiana Public Service Co (NIPSCO) has launched a request for proposals for thermal, renewable and energy storage assets.

The **NiSource** utility subsidiary is seeking 400 MW to 650 MW of generation to help meet its capacity needs for 2024 through 2026.

The RFP launched on May 20 and is open until June 30.

NIPSCO is requesting proposals for generation and contractual arrangements in three target areas:

- Wind and wind paired with storage
- Solar and solar paired with storage
- Thermal, standalone storage, emerging technologies and other capacity resources

The RFP is part of the company's 2021 Integrated Resource Plan, which will be submitted to the **Indiana Utility Regulatory Commission** for approval in October. ■

● NORTH AMERICA PROJECT FINANCE

Blackstone commits \$500m to microgrid JV

Blackstone Credit portfolio company **ClearGen** has committed up to \$500 million to a joint venture focused on developing behind-the-meter renewable energy microgrids.

The funds will support **GreenStruxure**, a JV launched last September between **Schneider Electric** and **Huck Capital**, which develops and operates on-site microgrids for commercial and industrial customers.

"We are excited to partner with GreenStruxure to identify new investment opportunities, provide real value for customers, and meet the significant demand for behind-the-meter energy systems in North America," said **George Plattenburg**, ClearGen's co-founder and chief commercial officer.

Vinson & Elkins provided legal counsel to Blackstone Credit on the deal. ■

Exelon clinches debt for Massachusetts peaker

Exelon Generation has secured a \$150 million non-recourse debt financing for a simple-cycle, dual-fuel peaking power plant in Massachusetts.

The deal, which has a five-year tenor, will finance the 194 MW West Medway II Generating Station located in West Medway, as part of Exelon's corporate strategy to strengthen its balance sheet by recapitalizing generation assets.

Crédit Agricole acted as the structuring agent and sole bookrunner on the financing, while **SMBC** and **Siemens Financial Services** acted as joint lead arrangers.

The West Medway facility runs primarily on natural gas, but can also utilize ultra-low sulfur diesel for up to 30 days per year.

The project came online in the first half of 2019. ■

NORTH AMERICA PROJECT FINANCE

ECP inks \$300m partnership with Hana Financial

Energy Capital Partners (ECP) has established a strategic partnership with **Hana Financial Investment**, a subsidiary of Korea's **Hana Financial Group**, which will deploy up to \$300 million in infrastructure investments across North America, Europe and other OECD countries.

The platform will target credit investments in various sectors, including power generation, renewables, energy storage and environmental infrastructure, as well as efficiency and reliability assets.

A range of debt structures will be considered, including senior, subordinated, and uni-tranche structures.

"ECP is very excited about this partnership, and we look forward to leveraging our industry relationships and institutional knowledge to source, underwrite, and execute on attractive debt opportunities," said **Mahmud Riffat**, principal and co-head of credit at ECP. "This partnership will allow us to support a wider range of borrowers across the return spectrum."

Since establishing its credit platform in 2012, ECP's portfolio companies have issued over \$31 billion of debt across various markets, including commercial bank loans, syndicated term loans, high yield bonds, asset-backed structures and private credit transactions.

ECP recently raised a \$1.2 billion continuation fund to house its stake in renewables developer **Terra-Gen**, employing a strategy that has come into vogue among private equity firms in recent years ([PFR, 4/6](#)). ■

BlackRock's DSD secures TE financing

BlackRock Real Assets' solar development platform **Distributed Solar Development** (DSD) has secured tax equity financing for its pipeline of distributed generation solar projects.

Bank of America provided the \$85 million tax equity investment, which will support DSD's commercial and industrial solar portfolio through 2021.

A sizeable portion of the funds will go toward assets supported by the **New York State Energy Development and Research Authority's** VDER (Value of Distributed Energy Resources) program.

This is the third financing that DSD has closed this year for its C&I solar pipeline, having also clinched a \$150 million two-year revolving credit facility from **Rabobank** in March and a \$300 million two-year debt package from **Credit Suisse** in January ([PFR, 3/3, 1/26](#)).

"Our tax equity financing with Bank of America nicely complements the Credit Suisse and Rabobank financing deals closed earlier this year, and once again validates DSD's evolution as an industry hub for the C&I market," said DSD's CEO **Erik Schiemann**. ■

NextEra plots financing for Californian wind farm

NextEra Energy Resources is arranging debt financing for a wind project that it is repowering in California.

The 77 MW Sky River Project in Kern County has been decommissioned ahead of the planned repowering, and is expected to be back online by September.

"Financing parties have been identified" to fund the repowering construction work, a source close to the situation tells *PFR*. The identities of the parties could not be learned by press time.

In order to carry out the re-

powering, NextEra is rearranging the ownership structure of the project internally, according to a US **Federal Energy Regulatory Commission** filing dated May 20.

NextEra has requested FERC approval by July 6 for the reorganization, as the project is scheduled to synchronize to the grid on July 12.

Unlike many of NextEra's wind farm repowerings, the company will not reuse any of the project's existing turbine towers or collector system due to their age, dating back to 1991.

The Sky River project previously sold its output to **Southern California Edison** under the terms of three power purchase agreements, all of which have expired.

Upon completion of the repowering, California community choice aggregator **Peninsula Clean Energy** will buy about half of Sky River's output for 20 years ([PFR, 2/11](#)), while **Bay Area Rapid Transit**, the elevated rail and subway system that serves the San Francisco Bay Area, will buy the remainder ([PFR, 12/8/17](#)). ■

Debt, TE secured for 2.7 GW California solar complex

«FROM PAGE 1 **Deutsche Bank** was lead arranger on the debt financing for the first 250 MW phase of WSP, called Aquamarine, which is due online by this fall.

"We look forward to continue working alongside CIM as they develop WSP and other projects beneficial to the energy transition," said **Jeremy Eisman**, Deutsche's head of Infrastructure & Energy Financing in the Americas.

Details on the structure of the financing and tax equity investment were not disclosed.

Aquamarine will sell 50 MW of its output to **Valley Clean Energy Alliance** over a 15-year period, under a contract signed in early 2020 ([PFR, 2/2/20](#)).

Under a more recently inked contract, the project also will sell

renewable energy credits associated with 75 MW of capacity to **Silicon Valley Power**, the not-for-profit electric utility of the city of Santa Clara.

"With the imminent completion of Aquamarine, we are in active discussions with numerous entities to supply the clean energy that is critical to meeting the short- and long-term goals for renewable energy – vital to

improving communities," CIM Group co-founder and principal **Avi Shemesh** said.

Anaheim Public Utility is also an offtaker for WSP, and negotiations are underway for additional PPAs with other counterparties.

WSP will span more than 20,000 acres in California's San Joaquin Valley in western Fresno and Kings Counties once it is completed. ■

● NORTH AMERICA PROJECT FINANCE

Biden administration plots path for California offshore wind

«FROM PAGE 1 The second WEA is the Humboldt Call Area, located off northern California about 20-30 miles from Humboldt Bay, which could host up to 4.6 GW of generation.

"This is a major development for offshore wind along California's coast," says **Carl Fleming**, a partner at **McDermott Will & Emery** in Washington DC, who is also an adviser to the Secretary of Commerce on the Biden administration's **Renewable Energy and Energy Efficiency Committee**.

The news follows years of collaboration between the **De-**

partment of the Interior and the **Department of Defense** to locate areas offshore California's central coast that are compatible with the DOD's military training and testing operations.

"While there has always been huge interest by developers, there have been regulatory, engineering and Department of Defense challenges," says Fleming. "But that position seems to have shifted under Biden, and the DOD has worked with the administration and state officials to find suitable locations."

The **Bureau of Ocean Energy Management** (BOEM) had

initially issued a call for information and nominations on October 19, 2018, for three areas off California's central and northern coasts, including Humboldt and Morro Bay.

On June 24, 2021, BOEM and the state of California will hold an **Intergovernmental Renewable Energy Task Force** meeting to discuss the Humboldt and Morro Bay areas as potential WEAs.

After the meeting, the WEAs will undergo environmental analysis and BOEM also will undertake government-to-government tribal consultation.

A proposed sale notice then will be prepared for both the northern and central coast processes ahead of the 2022 lease auction.

Earlier this month, the Biden administration approved the construction and operations plan for the 800 MW Vineyard Wind project off the coast of Massachusetts, which is anticipated to be the first "commercial-scale" offshore wind project in the US ([PFR, 5/11](#)).

The announcement followed an executive order signed by President Biden on January 27, calling for the DOI to double offshore wind by 2030 ([PFR, 2/4](#)). ■

RWE, National Grid to jointly bid in NY Bight auction

RWE Renewables and **National Grid** have agreed to jointly develop offshore wind projects in the coastal region of the Northeastern US and to bid in the New York Bight lease auction.

The **Bureau of Ocean Energy Management** (BOEM) has identified nearly 800,000 acres as wind energy areas in the New

York Bight, an area of shallow water extending northeast from Cape May in New Jersey to Montauk Point on the eastern tip of Long Island.

Through their newly inked joint venture, **National Grid Ventures** and RWE plan to jointly bid for leases and develop offshore wind projects in the Bight area.

Norton Rose Fulbright is acting as legal counsel to National Grid Ventures on the formation of the JV.

"We're very pleased to partner with RWE as we take our first steps towards developing offshore wind projects in the Northeast U.S.," said **Cordi O'Hara**, president of National Grid Ventures.

"While we are an established presence in the U.S. with our onshore wind, solar and storage activities, this partnership will support RWE's plans to realize a sizeable position in the offshore wind space," added **Sven Utermöhlen**, chief operating officer of offshore wind global at RWE. ■

● LATIN AMERICA MERGERS & ACQUISITIONS

Cubico offloads Brazilian wind duo

Cubico Sustainable Investments has sold two wind farms in Brazil to **AES Brasil**, the local subsidiary of **AES Corp**.

The MS wind farm and the Santos wind farm have been online for more than 4 years and total 158.5 MW of capacity.

They are located in the states of Rio Grande do Norte and Ceara in northeastern Brazil.

"This transaction reflects the Brazilian market's attractiveness for many global players," said **Ricardo Diaz**, Cubico's head of Americas. "Capital rotation is

part of our strategy in certain markets to create value once the assets have been optimised. We will now continue to look at value accretive opportunities supporting local developers in their clean energy ambitions."

Law firm **Pinheiro Neto** advised Cubico on the deal, while **Cescon Barriau** acted as legal adviser to AES.

Cubico is now looking to diversify its Brazilian wind portfolio with fresh investments in solar and distribution assets, according to the company. ■

Eletrobras privatization moves forward

The sale of **Eletrobras** has moved a step closer to the finish line, thanks to a bill to privatize the power utility passing in the lower senate house on May 19.

According to the bill, Eletrobras will be able to sell new shares to investors, reducing the government's controlling stake in the company from 61% to 45%.

The bill will head to the senate house on June 22, where a final outcome will need to be determined before the bill expires.

Meanwhile, a clause in the

bill which would have tied the sale of Eletrobras to the government creating new contracts for gas-fired and small hydro power plants, has also been removed.

The removal of the clause follows an uproar from industry groups who argued that the cost of electricity would increase in Brazil as a result of it.

The Brazilian government first began looking at privatization plans in 2016, when former CEO **Wilson Ferreira** took the helm to prepare the company to operate as a private player. ■

Power Finance & Risk



PFR Energy Storage Roundtable 2021

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EDITOR'S NOTE

Energy storage has been likened by market participants to the classic chicken-or-the-egg story. Financing is needed to get projects across the finish line, but at the same time, financiers want to see an established track record of projects before deploying development dollars. As a result, when it comes to storage, despite the tidal wave of activity that has been predicted year after year, there always seems to have been more talk than action.

However, the tide seems to be turning, as the market for energy storage is growing at an increasingly rapid pace. In the last quarter of 2020, more than 2,100 MWh of storage came online, marking a 182% increase from the previous quarter. And in January, the **Energy Information Administration** forecast that 81% of new capacity would come from solar, wind and storage, with storage taking up an 11% chunk.

Project sponsors are also optimistic about standalone storage assets being included in a proposed 10-year extension and phasedown of the federal investment tax credit, as part of the Biden administration's \$2 trillion infrastructure package. The industry has long lobbied for a standalone storage ITC as it could help level the playing field between renewables-plus-storage and standalone storage, which so far has been jockeying for financing on a market-driven basis.

The recent proliferation of special purpose acquisition companies or SPACs this past year has also spilled over into the energy storage market, with battery manufacturer **Eos Energy Storage** and distributed battery storage company **Stem** being taken public via SPAC mergers – a theme that deal watchers say is likely to drive activity in the storage sector for the rest of the year.

However, the industry has also faced its trials, such as winter storm Uri in February which walloped the Texas power market, causing rolling blackouts and sending power prices skyrocketing to ERCOT's ceiling of \$9,000/MWh. All projects whose revenues were stabilized with hedges faced margin calls as a result of the volatility, which means that financing storage assets with hedges as well as merchant revenues is likely to prove more challenging. Market participants have already observed that hedge counterparties are being guided toward as-generated revenue contracts as a result.

Meanwhile, more clarity is still needed around federal and state-level incentives for storage assets, as well as from ISOs and RTOs on procurement processes, while stakeholder education will continue to prove vital, particularly around newer technologies and chemistries other than lithium-ion.

As one market participant succinctly put it, the wind industry is where natural gas was 10 years ago, solar is where wind was 10 years ago, and battery storage is where solar was 10 years ago.

To delve deeper into the opportunities and risks that lie ahead for the storage market, **Power Finance & Risk** brought together an experienced panel of market participants to discuss the trends and developments shaping this burgeoning industry.

Our expert panel includes senior representatives of a commercial bank, a financial advisory firm, a project sponsor and a law firm, to ensure a broad and balanced range of perspectives across the project finance sphere.

We hope you enjoy reading the resulting conversation as much as we enjoyed hosting it.

Taryana Odayar
Editor

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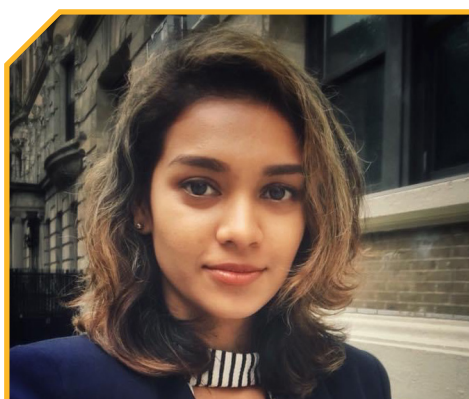
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Frank Genova, Chief Operating and Financial
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Brian Greene, Partner, **Kirkland & Ellis**



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

Taryana Odayar, PFR: Let's start with the Covid-19 pandemic and the impact that it's had on energy storage deals getting done this year. What have been the implications on the M&A side, the debt side and tax equity for renewables-plus-storage? **Conor**, why don't you get us started?

Conor McKenna, CohnReznick: Interestingly on the financing side, there's really no news from the Eastern front. Everything has stayed the same, especially as it pertains to standalone storage. It's been very much focused on the opportunities that present themselves, looking at the cashflows and being able to underwrite accordingly in this market which has been fairly strong. Obvi-

ously, tax equity is a little bit different right now because for standalone storage there is no opportunity for tax credits.

Solar-plus-storage though has continued to perform in line with the rest of standalone solar. There hasn't been a significant difference there. So, debt is strong, solar-plus-storage is in line with solar, and standalone tax equity for storage is not a thing, yet.

Sondra Martinez, Nord: From the lenders' side, one thing that's happening on the tax equity front – and I agree with Conor, we've seen it in solar standalone – is that tax equity has retracted from rolling over commitments over tax years. This is especially difficult on large projects. This has put more pressure on

construction schedules, and for lenders who like cushions, that makes it a little bit more challenging.

We've seen a lot of projects that require equity to step in when projects need to start construction before they can get tax equity. There's been a challenge on that front. The tax equity market, at least in our experience on the lender side and talking to sponsors, is tight. It certainly adds an additional layer of challenge to projects.

The last thing I'd say on this front, is that for solar-plus-storage, where you're involving hedges or complicated markets, it's a whole other story in terms of what tax equity is requesting and how debt and sponsors are then responding.

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Brian Greene, Kirkland: In tax equity, overall volumes were high last year but the market was fairly constrained other than for the best sponsors. And that is in part why you're seeing the industry really push for a direct pay in the Biden infrastructure package.

Frank Genova, Convergent: Yes. From our perspective as the only owner-operator in the room, we're approaching half a billion dollars of assets on the balance sheet. That owner-operator model is important for Convergent. In addition, our assets tend to be sub-transmission, distribution-scale.

So with that context, we recently worked with CohnReznick on a \$125 million tax equity and debt financing of eight storage-plus-solar deals. As everyone has said, even for utility-scale deals with strong sponsors that have an established precedent with the big banks, things were challenging. For companies like ours that are trying to raise tax equity for \$5 million to \$20 million individual deals, the market was challenging, and it was even more so during the majority of the pandemic.

"In tax equity, overall volumes were high last year but the market was fairly constrained other than for the best sponsors"

PFR: Frank and Conor, could you walk us through the \$125 million tax equity and debt financing you worked on? What were some of the challenges around that and how did you overcome them?

McKenna, CohnReznick: Sure. On the front-end, Frank and I launched a transaction where you get tax equity and debt financing for a portfolio of solar-plus-storage assets. And it was in the heat of Covid that we launched, where, as Brian had said earlier, things were a little bit constrained. Not a little bit – they were very constrained. It was hard to find anybody looking to provide financing other than to the biggest sponsors in the market.

So, on the front-end, one of the headwinds we had to deal with was trying to get the attention of potential investors. And what it meant was trying to broaden the scope of who we were looking at as a potential partner, as opposed to just the standard names.

It took some extra legwork and a lot of flexibility on Convergent's part to try and find the right investor. And then also to couple that with the right debt provider. There were a lot of inter-party things that worked through their journey into the market.

But there are certain nuances here that were specific to bringing somebody in that wasn't a regular participant on the financing side. Frank, if you want to get into that a little deeper, that would be great too.

Genova, Convergent: Yes. The characteristics of the distributed portfolio, as Conor said, include eight storage-plus-solar deals, with a total investment of around \$125 million.

So, a sizeable portfolio and the business case is very straightforward. Basically, state-sponsored tariffs, state-sponsored incentives. But even at that scale with stable revenues and cashflows, as Conor said, it was very challenging.

On the debt side, for us, being owned by **ECP [Energy Capital Partners]**, we can be opportunistic with financing. So, we tend to gravitate towards the higher-yield, more structured deals.

This portfolio was an example of something that we viewed as very straight down the fairway with the exception that it is distributed and there are multiple assets. But from a financing perspective, more broadly for Convergent, having been in energy storage for 10 years, we've taken the view that flexible capital is critical to growing the business at a proper pace.

So, we've always been opportunistic, and we'll only view and consider financing if it's accretive for the business and consistent with what we're trying to achieve. And the financing that CohnReznick and Convergent achieved in this deal was absolutely that.

Obviously, tax equity has to be in at the right time. You can't recap or address later, which creates some inefficiency and barriers for companies like ours that focus on these more bespoke, smaller, non-utility scale deals.

McKenna, CohnReznick: If I can just put a finer point on it, generally tax equity has not been known for being creative or problem-solving. So, bringing up something that's middle of the fairway but new to them, makes it harder. On top of that, the typical tax equity players were all pretty full up and while Convergent is a very strong name in the storage space and ECP as its parent company is a strong company, we couldn't get their interest and had to go to somebody that was a little bit further afield to get the tax equity. So, yes, complexity on top of complexity with that aspect. It was challenging but we were able to get through it.

"There's been a lot of talk about storage and less action. But, this is the year of all the action"

PFR: Sondra and Brian, did you see any creative structures in the market last year around lending to storage or storage-plus-renewables?

Martinez, Nord: I agree with what Conor said. It's been said many times – there's been a lot of talk about storage and less action. But, this is the year of all the action. We know of and are seeing many large projects come to the market – a combination of standalone and storage-plus-solar.

There were a couple of landmark transactions last year that came to market, but this is the year where all the very large sponsors are coming with these types of projects. If a project is straight down the fairway for a large sponsor, it's going to be relatively easy to obtain financing.

Where financing will be increasingly complicated, and especially after what happened in ERCOT, is going to be around deals that are more merchant on the battery storage side or are trying to capture various revenue streams, and deals that have hedges. This will especially be true for storage-plus-solar deals which need tax equity because one thing that complicates tax equity and hedges and the ITC has to do with various issues around collateral and first liens.

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As for what will happen with hedges and standalone battery storage, I think it will follow the route of gas projects. Gas projects don't get encumbered from a lender standpoint by being back-levered and sharing collateral with tax equity.

Tax equity complicates a collateral story for lenders when, on top of that, you have a hedge and a potential first lien. Some of these challenges are coming to bear now based on what happened in ERCOT over the winter. The market's now trying to figure out the potential solutions.

An ITC for standalone battery storage is an interesting proposition and the market will ultimately speak to what it wants and needs. Certainly with the cost declines and the PPAs we're seeing on the capacity side, I'm not sure it's needed for all projects but probably for projects that are more complicated.

"That's the job of the ITC – to help markets grow and support emerging markets like storage that are going to be integral to the sustainability of our grid"

McKenna, CohnReznick: On the face of it, Sondra, I agree with you. Tax equity makes this more complicated, increasing back-leverage for deals in which the lender is typically senior. But if you're having equity senior or priming debt, it feels counter-intuitive. That said, with the idea of having an ITC for something like storage, it will help all projects.

In other words, I know it's complicated, I know it's rough. However, it's an effective way for the government to support the proliferation of these opportunities more broadly in the market. And admittedly, it doesn't necessitate through the structuring or greater application of debt for these projects. It just helps the market grow.

And that's the job of the ITC – to help markets grow and support emerging markets like storage that are going to be integral to the sustainability of our grid. And environmental support as well for solar and wind.

Greene, Kirkland: We host an energy storage conference two times a year – the last one was in January – and the consensus at that time was that it was going to be a strong year with or without the ITC but with the ITC the growth would be "supercharged." I think that is still the case.

Genova, Convergent: Yes, based on the deals we have that are operating, under construction and moving through contracting, I would agree. Like many others, we're tied in and connected with folks on Capitol Hill, trying to get a read on exactly what legislation might look like especially from a transitional or timing perspective. That's really important for us, as we're literally putting steel in ground every month.

But I agree with Brian, we've built up a half a billion dollar business without an ITC. One of the key distinctions of storage is that it's an active resource, not a passive resource, to Sondra's point. And that complicates but also reinforces the revenue models for these deals. That's one of the reasons why there are storage projects built without an ITC. The value is there.

But obviously the passing of an ITC, or a cash grant, or a direct-pay option would be extremely meaningful to our portfolio or pipeline. So, it definitely is a supercharged situation.

Martinez, Nord: I would agree with both Brian and Frank. We're seeing a number of opportunities and how much it assists the market will be determined by what the government decides to do.

PFR: Sondra briefly touched on winter storm Uri and the impact of that on the Texas market. What has been the fallout there and the impact on hedges for storage and renewables-plus-storage? And Frank, is Convergent working on any projects there?

Genova, Convergent: We don't have anything operating there right now. We tend to take a different view on Texas and ERCOT more broadly. We do have some irons in the fire, but the business model is pretty different than what you're seeing a lot of folks doing from a standalone storage perspective.

Greene, Kirkland: I'd be interested in Sondra's take on this too, but as for the project pipeline in Texas, I would expect more scrutiny from lenders going forward. For deals with hedges, lenders will be focused on making sure that in the downside case – if there is another event like Uri – that their debt service will be protected.

"We're tied in and connected with folks on Capitol Hill, trying to get a read on exactly what legislation might look like"

PFR: And is that something that you've been seeing or expect to see? What have you been hearing from clients?

Greene, Kirkland: We're working on a few projects in Texas that slowed down right after Uri, but they are now proceeding. I would compare it to last year with Covid *force majeure* concerns where there was an increased amount of diligence, and sponsors had to be ready with answers to the difficult diligence questions posed by lenders.

McKenna, CohnReznick: We're doing the workouts for a number of different wind assets that have really gotten into a tough spot and we're working with all parties to get through this. In terms of complexities, we're seeing it on all ends there.

What happened in Texas couldn't be a better example of how complimentary storage can be towards what's already on the grid. Especially when your cogen plants are not working, because it wasn't just a wind problem where the turbines were frozen, there were issues with conventional generation as well and that was the majority of the issue.

But in situations where you have storage available for support, you would think the utilization of storage in that market could have saved the rate payers substantial amounts of money. And the grid resiliency that's being provided by this should be helpful.

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If regulators are looking for a reason why storage should be a bigger portion of the overall allocation of the grid, the Polar vortex in Texas should represent a great example as to the importance of addressing things like the tail risk that we saw as they go forward.

Martinez, Nord: Yes, Conor, I would say regulation would have helped Texas because there was a big weatherization issue that tripped off most projects. It also impacted some battery storage deals. Texas is a unique market, it has its own challenges just in the way it's designed. It can cause problems because you can't have a project offline, whether it's solar, storage, wind, gas, and have price hikes and be in a hedge where you don't perform.

It's a financial transaction and creates a lot of issues. I would agree with everybody, deals are going forward and Texas is in need of storage because they're in need of reserve margin, they're in need of capacity.

We're also seeing hedges being reshaped

and the terms changed. The result is going to be a little bit more merchant in projects because there's going to be a desire to under-hedge, if you will, and try and force hedge parties into more as-generated types of revenue or types of contracts to prevent these large liabilities with price spikes and mismatches. It's evolving right now as deals are moving forward and all market participants are looking into it.

Coming back to the ITC for a minute, as Conor knows, that's where it's more complicated, not just because of collateral positions but also in terms of hedges and who provides liquidity. While all hedge deals in every market need some ability to balance liquidity lines, it will be interesting to see how the ERCOT winter storm shapes where that money goes, and whether draws on liquidity lines prime tax equity. As we look at the build out of storage projects, these factors will all be an important part of the overall story, especially with solar-plus-storage hedge deals.

PFR: A question for everyone – would you say that hedging structures for storage projects are becoming more common or intricate? And have you seen structures that have been traditionally used for merchant gas-fired plants, like revenue puts and heat-rate call-options, being revamped for energy storage?

McKenna, CohnReznick: California's typically one of the leaders in terms of markets, and we recently closed a deal there between **SMBC** and **Capital Dynamics**. It was unique compared to some of the larger projects we've seen. It was 400 MWh of storage or a 100 MW stabilized storage system. What was unique about it was that the amount contracted was relatively low compared to the merchant aspects.

What we're seeing, as opposed to a greater move towards full tolling, is people looking like they want to take advantage of those out-sized opportunities in various markets and the energy arbitrage that you would typically

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see in a lot of natural gas plants. Like what Frank was saying before, this is active management and therefore the desire for long-term hedging might be less than you would see from typical renewable energy projects.

Genova, Convergent: We don't have any hedged products in our portfolio and most deals benefit from multiple revenue components. Even deals with relatively larger merchant positions have some form of stable, underwriteable revenue stream that would allow us to bring financing to the project later.

Having done this for 10 years, looking at active dispatch and the analytics behind it, merchant pricing exposure is certainly an important consideration, but the dispatch or operation engine is equally important. I've been talking to banks for a long time and there's been a lot of progress, but we've shown a number of banks, including Sondra's bank, our portfolio. And I don't know if we're there yet on an individual project basis to

efficiently underwrite a complex, five-component revenue deal for a \$15 million or \$20 million asset.

Because, again a lot of it has to do with the analytics – the upfront and operational optimization behind the scenes. So, our approach has been – putting tax equity aside – bulking up a portfolio and diversifying it. Geographic diversity, business case diversity, combining different merchant revenue streams and then potentially recapping at a corporate or portfolio level, because that active or operational risk is a reality for battery assets.

PFR: What about PPA structures for renewables-plus-storage – any bespoke contract structures there?

Greene, Kirkland: One thing that's really interesting to me is this new idea of 24/7 PPAs, like the announcement between **AES** and **Google**. What's driving that is there's such a strong demand – among tech companies in

particular and other corporates – to really reduce their carbon footprint.

And they're looking at data in a more and more sophisticated way. Whereas they used to look at getting a PPA with, say, a utility-scale solar or wind farm sized to match the load of a data center, now they're looking at tracking their energy usage on an hour-by-hour basis.

So, the concept of combining assets and entering into a PPA with a company like Google, where you're supplying their power 24/7 from a variety of different sources, is a very interesting market development.

Martinez, Nord: I would agree. From a lender's perspective, the simplest contract is the capacity or availability contract and there's a lot of excitement for those transactions in the marketplace. The exuberance from banks looking to finance those projects is pretty large. Developers have worked to make sure there's not some of the stumbling blocks that lenders worry about in terms of matching



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contract use with warranty use and making sure that all the parties are taking their appropriate risk in terms of which piece they can control. We're going to see many of them come to market this year and they're going to be easily financeable, and they're going to be with the largest sponsors.

These first large deals will help the market get comfortable with the technology and for lenders to have these assets and see how they behave, and start building up that experience.

The level of interest from lenders is going to depend on the sureness of the revenue streams and the complexity. As you move from capacity contracts to tolling agreements, to fixed-shape hedges, to layering on additional merchant streams, or just the ability of equity or frankly for offtakers to use a battery however they choose, that is going to decrease the number of lenders who will look at those types of transactions. If you think about merchant in general, the same is true across the market. There are more lenders who will take no merchant risk, and as you move up in terms of the amount of merchant revenue there are fewer lenders willing to take that risk.

For more complex battery usage deals, lenders will worry more about technology risk, whether they truly understand efficiency, degradation, replacement, etc. and so the structures will also move according to that. There will be shorter amortization profiles, there might be more cash sweeps, and there might be more concerns about operating expenses or capital expenses built into the structure. And there will be fewer lenders.

Pricing will move accordingly, and the cheapest deals in the market will happen because they're the simplest. That's where we're seeing the market now and this is the year that financing opens up for these larger scale battery storage transactions.

But I agree with Brian, I think what AES is doing in mixing and matching is a really interesting way to truly provide firm, clean power.

PFR: From a macro perspective, what has been driving the demand for storage, especially from utilities issuing more RFPs for renewables-plus-storage and stand-alone storage? Is it that thermal plants

are retiring, levelized cost declines? Conor, what do you think?

McKenna, CohnReznick: Okay, number one, there is a significant desire for people to get into something new, interesting and sustainability-related, but not be beholden to the same merchant curves or as-generated requirements that you typically see from conventional renewable energy.

There's also, in general, significant amounts of liquidity whether we're talking about the debt side or the equity side, which is then driving the desire to put this capital to work. There are macro trends that people are looking at, saying I want to get on the ground floor when we're thinking about what this might look like if more coal gets retired, if natural gas gets retired.

As more renewable energy comes on to the grid, there are intermittency aspects that will need to be addressed and storage makes the most sense to do so.

All these aspects come together and are coupled with the fact that price curves are coming down strongly on a lot of technologies which make it more viable in more markets.

Genova, Convergent: We started the business formally in 2011 and shortly after that we were pricing fully integrated lithium systems at \$2,000/kWh. Now we're buying them at \$200/kWh. That's exactly an order of magnitude change and that's by far the biggest driver.

The second, being in the trenches, owning, operating and originating, is stakeholder education. Three or four years ago, it was common for utilities or large-scale industrial customers who are our offtakers of these solutions to not fully understand them. Many early conversations distilled down to, 'Wait a second, you're taking a battery that's used in my phone, and you're going to save me all this money or create this resiliency on my network with it?' These were very foreign concepts.

Now, it's hard to pick up a newspaper without reading about batteries in some fashion, whether it's EVs, or **Tesla**, or whoever. So, the mass adoption of this concept fundamentally, coupled with the fact that we've had order of magnitude changes in pricing over the last nine years, are the big drivers.

Martinez, Nord: I just want to add to what Frank said because that's a really important point – the acceptance of the technology. Utilities as grid operators are worried about preventing brownouts and are in desperate need of capacity or the ability to deal with, let's say in California, a lot of intermittent renewable power. They want to feel confident in the solution, because ultimately, the grid operator is concerned about keeping stability on the grid and the lights on. Education has been really important to increasing the acceptance from both a lender perspective, starting with getting the contract, and with helping utilities move over the line.

You can look no further than the automotive industry, where most large manufacturers are now saying we're going to go completely EV in five years' time. So, it's not just for the power industry, but across the board that there's starting to be an acceptance and a better understanding of the technology and what that means for reliability.

Greene, Kirkland: We represent a lot of private equity investors at Kirkland, and there's really been a ground shift in the last year in terms of the focus on ESG among LPs. Aside from being a growth industry, energy storage projects and energy storage companies fit that mandate and are a good investment from an ESG perspective for private equity funds.

Genova, Convergent: The proof is in the pudding as it relates to stakeholder adoption. Conor and I worked on this large distributed solar-plus-storage portfolio which includes NWA [Non-Wires Alternative] contracts with utilities where the asset is providing local capacity to alleviate overloading on substation infrastructure. We have five or six other projects in the portfolio that are storage only which are providing that service to the utility under some kind of capacity agreement.

This is, to our knowledge, the first hybrid resource which is leaning on solar production, with a battery alleviating a grid or a system issue in lieu of a traditional solution. That's pretty amazing when you think about it. We're really proud of those deals, and it's just proven how far we've come over the past ten years.

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PFR: That's very interesting. Do you want to add some context on how that came about?

Genova, Convergent: Yes. Some of the early-mover energy storage states are also a great example. Initially, utility offtakers in California were saying, 'We're mandated to buy storage, we don't care where it is, so we'll contract for it. If it comes to market, great. If not, we'll tell everybody we told you so.'

Now, California utilities have taken a different approach. They said, 'Wait a second, we have to buy this stuff, but these systems can actually provide value to the system. Why don't we provide some guidance to the market as to where we'd like to see them?'

And that's just a little example from an early-mover, which has proliferated across the United States. These are typically very complicated problems that are well documented, with years of load data, load forecasts projecting out 10-plus years, identified issues with multiple circuits, multiple substations.

A lot of the credit goes to our utility partners for being so forward-thinking, leaning on a hybrid solution like this. Solving a very

complex problem that is traditionally addressed with pipes and wires. We're seeing a lot more of that, much more complicated RFPs, and a very thoughtful approach from investor-owned and publicly-owned utilities.

PFR: Any innovations on the technology side when it comes to energy storage? Are there any chemistries other than lithium-ion that might start gaining project finance traction or are we a long way off?

McKenna, CohnReznick: I'm dying a little bit here just because the truth is for me, and I'm the boring banker out there, but the further away you are from what's called mainstream adoption, the less likely I am to see it. Trying to get to the idea of bankability for some of these technologies is harder without a track record. There's so many things that have to happen for it to really make sense for Sondra and other capital providers.

Greene, Kirkland: I had the same reaction as you. For any new technology, proving the track record to make that technology bankable is an issue. What will be interesting to

see over the next year or two, is whether the DOE Loan Programs office – now led by **Jigar Shah**, formerly of **Generate Capital** – is successful in driving the bankability of new technologies.

I'm hopeful and it will be great to see that program work. They have something like \$40 billion authorized for different types of projects. It would really be great to see that put to use.

Genova, Convergent: I guess it's probably up to us to bring new technologies to the banks! I could talk for hours on this topic, but the headline here is, again, having done this for a while, the sharp declines in integrated lithium solutions have completely decimated the emerging technology space.

You had a number of emerging technology companies out there two or three years ago who were targeting scaled unit pricing of \$350/kWh to \$400/kWh. And that made a lot of sense when lithium was at \$600/kWh. Now lithium's at \$200/kWh for a four- or five-hour system. That really upended the emerging tech space and prevented many from raising capital. The graveyard is a mile long. Lithium

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.

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has established a stranglehold on the market for good reason, despite an interest in deploying new technologies.

For us, everything in our portfolio is backed by a multi-billion dollar bankable balance sheet. Our view, is even though we're not financing our deals now, we certainly want to realize that margin compression at some point and we need a perfectly structured PF deal to do that. So, everything in our portfolio is backed with proper warranties and guarantees from solid credit integrators.

There are some bigger players out there that have interesting solutions. Where you're going to find value is in the longer duration technologies. And specifically, redox flow systems where at four or five hours, they're close to the benchmark for lithium. But redox systems have the ability to decouple power and energy, where adding energy is just adding anolyte and catholyte which has a very, very low marginal cost. So, at six, seven, eight hours, these solutions are cheaper, in our opinion, than lithium. Other important considerations are operating costs and augmentation profiles. These systems can operate for years and years without needing battery swap outs and those kinds of things, which are material. So, not only are they extremely competitive and cheaper than lithium in that range, but the operating profiles are going to be cheaper, driving the LCOE [Levelized Cost of Energy] down further.

Now, again, these are big balance sheet businesses that we're looking at, so the financability concerns are less pressing. But that's the sweet spot in our view – long duration will have a place in this market over the next few of years.

PFR: Sondra, what about you, is Nord willing to be a little bit more adventurous in terms of financing something new on the technology side?

Martinez, Nord: Well, if Conor is the boring banker, I don't know how you'd describe a commercial banker! Everyone stated accurately that lithium is new in many ways for the commercial market. There's an adoption needed before getting comfortable with that technology. Currently, we're not looking at new, interesting storage technologies, as we need a proven track record. Right now, that's

certainly the simple lithium type of systems. It'll be interesting to see if this falls the way of solar in terms of the way crystalline pushed out all other forms of new technologies.

Frank makes a good point – application could be the differentiator here and obviously, balance sheet is important. Right now, for the projects we're seeing, I only expect to see one technology. Equity has, for some years, been getting comfortable with that technology as has the automotive industry.

As for the utilities, what Frank described was really interesting because it shows that utilities trust the technology. They wouldn't be seeking it for very specific uses if they didn't have comfort that it could perform.

There's a lot of market acceptance around this type of technology and we'll see that proliferate over the next couple of years in terms of deal flow. And then we can talk to you about new technologies after people get a little bit more experience with the current "new" technology.

“Commercial lenders are gaining comfort and acceptance of the technology”

PFR: That sounds fair. And as Brian mentioned, there's also the DOE's Loans Programs Office, so perhaps some of the more innovative technologies could get funding from there in the meantime. Apart from that, what other federal incentives, or even state-level incentives, could be helpful for storage?

McKenna, CohnReznick: Everything and anything that helps support a burgeoning asset class like storage is going to be helpful on some level. The degree to which it's helpful is always hard to get right. No one's going to get it right because it hasn't been done enough yet.

And also, the people that are the smartest about it, guys like Frank, they're not in positions to make the policy. They're there to try and advocate but there's a whole lot of stakeholders involved.

The point is, is it going to help? Yes, it helps. The more firm it is, the less volatility there is in whatever incentives are being supplied by the state or federal level, the easier it becomes for Sondra to do what she wants to do in terms of underwriting the assets, the easier it is for the paperwork that Brian can do in terms of getting the documentation together. That's the part that's important. It's getting stability and creating a sense of security around whatever incentive is being provided so that it can help support the technology.

PFR: Could there be a role to play for non-bank lenders, including mezzanine financing and royalty investments?

Martinez, Nord: Commercial lenders are gaining comfort and acceptance of the technology. We're seeing contracts for 20 years on the capacity side. And we're seeing contracts from Tesla and others that are either matching it or enough money in the system where lenders are getting comfortable. We're seeing a lot of 15-20 year contracts and we're seeing the technical advisers get us there. We're certainly seeing equity feeling comfortable.

The different use profile is going to change the financability, the number of banks, the pricing, the structures. But for large sponsors, large deals, simple deals, there's no need for other means of financing since we're seeing a very strong response in the bank market.

PFR: How are banks pricing construction risk versus operating risk at the moment for standalone storage?

Martinez, Nord: Banks are looking at construction on the storage side similarly to how they look at construction on the solar side, which is more modular and relatively speaking, simple construction. And it's priced accordingly.

Genova, Convergent: There's not much spread in the rates or terms for the construction portion versus the take out portion, at least that we've seen. That said, those rates and terms vary widely based on the business case – if it's a straight down the fairway deal, rates have varied around Libor-plus-250 to 300 for most. In the more complex deals

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we're doing, we haven't really tested the market but, as noted, our strategy there is to go in with a portfolio in lieu of one-off financing.

From what we've seen, when folks try to do these one off, complex, non-diversified deals, banks like Sondra's have to get rather fancy in their structure, which drives the implied cost of debt much higher than the headline number. So, that doesn't make much sense to us. As noted, based on our capital structure, we're in a bit of a different position than most. However, there are other players in the space that need to go that route. Everyone in the market is happy that the banks are generally comfortable, and willing to work and be creative. But our strategy is to not force the banks to be overly creative.

"You're going to see foreign players, but it depends on their general cost of capital"

PFR: There are a number of ongoing sale processes for energy storage platforms, like Broad Reach Power and Key Capture Energy. Is there more value crystallized in obtaining both the team and the platform as opposed to just the underlying storage assets or pipeline?

Greene, Kirkland: Yes, you're going to see a continued interest in acquisition of energy storage companies. It's driven by all the factors we've talked about before – that it is a growth industry and meets ESG criteria. Maybe the value proposition has evolved a little bit. Initially, there were a number of investors who just wanted to get into the market and buy a pipeline. And that has shifted and there's more of a premium now for a management team and track record versus just getting a set of assets.

McKenna, CohnReznick: I would agree. I think that what you're seeing in storage is similar to what you might be seeing in DG because the scales are similar in terms of the size of the teams. Usually, for utility-scale, they're much larger teams or it's a different style of approach than what you're seeing potentially with DG and storage.

But there's a lot of activity right now for mid-sized players that have what Brian's saying – a decent pipeline and a track record. It's not a hypothetical "bragawatts" pipeline, it's a real pipeline. And if you have that, as well as a few hidden assets in the ground, then what you're seeing is investors with a strong desire to participate.

They may have seen the progression as it happened in solar where you'd try and start out with projects and the cost of capital get pretty competitive, pretty quickly. So, they're trying to say, 'Look, let's circumvent that entirely. I'm going after a platform early on and supporting them, and therefore, have the ability for the greatest amortization of the assets and can let somebody else buy the assets if they're a cheaper cost of capital.'

But to Brian's point, you have to believe that you're going to have somebody like Frank who can lead a team and then grow it into something substantial. And to do that, you need some sort of track record. It's harder and that's where the focus has been, from what we've seen.

Genova, Convergent: Yes. We were one of those companies in 2019, when we sold Convergent to ECP. My gosh, it was two years ago, but it feels like it was yesterday.

As noted, storage is different. It's an active resource, it needs to be managed throughout its life cycle. In terms of the origination or development program, if you're just chasing LBMP [Locational Based Marginal Pricing] spreads, or ancillary services spikes and that kind of thing, okay, the development model for solar and storage in that specific vertical is not all that different. But in our case, the origination and development model is completely different than solar origination, evidenced by the past deal that I walked you guys through.

Operating storage requires a platform built on information, analytics, etc., which traditional developers typically don't have; there's also a very, very different approach to originating high-yield assets in this market, which is why you're seeing strategic investors and private equity shops looking to buy platforms. This is not only because it's necessary to monetize the asset or investment, but because it is a great pathway to build more pipeline.

To Conor's point, you can consider recap and putting deals in the hands of the lowest cost capital after that. But we've seen it as a very strategic way for some of these players to get into the business and facilitate their own pipeline growth.

"Energy storage companies are going to continue to be a top target for SPACs"

PFR: That's really interesting. We've also seen quite a few foreign investors coming into the space. Qatar Investment Authority made a \$125 million equity investment in Fluence, the JV between Siemens and AES. And Macquarie GIG took a stake in esVolta. Are we likely to see more foreign players enter the US market this year?

McKenna, CohnReznick: The answer is that you're going to see foreign players, but it depends on their general cost of capital. Foreign, domestic, it doesn't matter as much. There are different drivers for everybody to look into investing in stuff like this in the US market.

If it feels like the marginal best opportunity is here for, let's call it interesting reasons, that's great. If it's more for macro reasons like trying to have more dollar-denominated investments or if this is a balance against their existing portfolio of oil and gas, or whatever else they have in the US, okay fine. That all makes sense.

But I don't think about it any more as foreign or domestic, it's just a matter of what your driver is. And if the driver makes sense, yes, you're going to see more of them doing it.

Genova, Convergent: The reality is that the North American storage market is way more advanced than anywhere in the world. In Europe and most regions, the lack of clear market signals and structure prevent the kind of adoption for storage that we've had here in North America. That's just the reality and they're moving up the curve quickly, but based on existing market structures else-

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where, it prevents the proliferation and larger scale of adoption that we have here.

At Convergent, we're not international – other than Canada – but we do keep tabs on market evolution and we're very close with a bunch of financial players and private equity funds throughout the world. And they love the model and the sector. It makes a lot of sense, they know it's coming to Europe, but it's hard for them to get their hands around deals. There just aren't enough of them. And there's so many of them here, which is another reason why you're going to see international players, especially the European utilities and financial investors, continue to look for deals here.

“There's a lot of momentum and it looks like it's going to be a strong year”

Martinez, Nord: That's right, Frank. The power market in the US is so large and diversified, and there are different authorities to capture different yields in different markets. We also see a lot of European investors entering the space.

PFR: Something else that we've seen a lot of and which has been written about extensively in the trade press, has been the proliferation of SPACs. We saw storage companies like Stem and Eos being taken public via SPAC mergers. What role will SPACs continue to play in the storage market this year?

Greene, Kirkland: We represented **Star Peak Energy Transition** on its business combination with Stem. Between 2020 and to date in 2021, Kirkland & Ellis has closed over 120 SPACs, so we're pretty close to that market.

About a month ago, the SEC released a statement that could result in warrants being issued in connection with SPACs to be treated as debt rather than equity. And that has slowed the market down, but deals are still going forward, albeit at a slower pace.

At the end of March, there were around 400 SPACs looking for targets. And for all the rea-

sons we've mentioned previously in the discussion, energy storage companies are going to continue to be a top target for SPACs.

Genova, Convergent: Brian's view on this is definitely the most educated. In a lot of ways, the SPAC process is a capital raise in every situation. The existing companies and their investors are not exiting, they're only selling minority interests in the business for the most part.

So, what it comes down to, outside all of the complexity and barriers and some of the recent issues that Brian identified, is if the SPAC market improved – recently some of these companies were trading up more than 5X before the recent move to the downside – it's another pathway to what used to be, and still is a really cost-effective form of capital.

For ESG companies in general, there's a lot of interest from the retail and institutional space and generally, the current public market has a limited number of pure-play opportunities. That's what's driven a lot of the interest – the fact that ESG is front and center, and for good reason. And the market got caught in between, saying this is really attractive and we want this, and there was just a shortfall in public instruments to invest in.

That's driven some of it, but at the end of the day, it's really a capital raise and a theoretically more efficient way to go public.

PFR: Before we wrap up, is there anything you're hoping to see for the storage market this year in terms of financing, contracts or even state-level incentives?

Martinez, Nord: From my viewpoint, there's a lot of activity. We are looking at or working on five deals that are very large with either solar-plus-storage or standalone storage. That is an indication of all the behind-the-scenes work, at least on the utility-scale side, that large sponsors have done. These deals are now coming to the market and this will be the year that all the hype actually flips and there will be a lot of action. The market is excited about that and it provides me a lot of hope for the future of what can be done or what will happen in the storage industry.

Genova, Convergent: Some clarity on the ITC legislation for standalone storage and

the transition plan for renewables would be great. That's definitely high on our wish list and it seems like there are some pretty strong tailwinds there. Obviously, this is politics, so we have our eye on it, and it's going to be a core focus for everybody in the sector.

Outside of that, there's a lot of momentum in the space right now. Two years ago, I would have asked for more momentum and now we have it.

On the federal side, the state side, public service commissions, utilities, it's really just keeping it up. We've never been more bullish about the sector and things are absolutely moving in the right direction.

“People should keep an eye on the Biden infrastructure package”

Greene, Kirkland: Yes, agreed. There's a lot of momentum and it looks like it's going to be a strong year. I'll talk about some things that could propel that even further. The first is continued regulatory reform. There are different proposals before FERC with respect to solar-plus-storage, and storage as transmission could really help drive the market.

In terms of state incentives and programs, you have some states that have really good programs. I would mention New York, California and now Virginia. Those are states that both have a strong program and/or a sufficient market size to really make a dent. You're likely to see more state programs coming out in the next year or two.

And people should keep an eye on the Biden infrastructure package. We've talked about the ITC but there are a number of things in the Biden infrastructure package that could really boost both renewable energy and storage. There's a clean energy standard, for one. There's a transmission ITC, which is really key to the level of growth in renewable energy and storage in certain areas of the country. Finally, I would mention federal procurement, which hasn't been talked about as much but could have a real and immediate impact. ■

LATIN AMERICA PROJECT FINANCE ●

Engie taps EPC contractor for Peruvian transmission

Engie's Peruvian subsidiary has hired Spanish firm **Abengoa** to develop the transmission infrastructure that will connect a 260 MW wind farm to Peru's

national grid. The engineering, procurement and construction contractor will build a 39.14-mile, 220kV transmission line that will interconnect Engie's

Punta Lomitas wind project to the **National Interconnected Electric System**.

Construction on the wind farm is expected to begin during the

second half of this year. Engie secured a power purchase agreement for the wind asset in April, as previously reported ([PFR, 4/8](#)). The offtaker is **Anglo American**, which will use the power to supply its Quellaveco copper mine. ■

Sonnedix, Cox Energy close \$120m solar financing in Chile

Independent power producer **Sonnedix** and **Cox Energy América**, the Latin America subsidiary of **Cox Energy**, have closed a \$120 million financing for a solar project in Chile.

The project is the 160 MW Sonnedix Meseta de los Andes solar facility, located in the Valparaíso region in the municipalities of Calle Larga and Los Andes. **SMBC** provided the financing

for the plant via a joint venture called **Sonnedix Cox Energy Chile**. The JV's ownership is split between Sonnedix (70%) and Cox Energy América (30%).

Once online, the plant is ex-

pected to generate more than 385 GWh of electricity per year.

The project is Sonnedix's second largest solar plant in Chile, after the 170 MW Sonnedix Atacama plant in the Atacama Desert which came online earlier this year. ■

Mexico's Banverde raises \$57m for rooftop solar acquisitions

Banverde, a Mexican investment fund focused on commercial and industrial rooftop solar projects, has secured a \$57 million syndicated credit facility to support the acquisition of small-scale solar assets in the country.

Banverde will use the funds to

ramp up its acquisition of rooftop solar projects in Mexico with a capacity of up to 500 kW each.

Corporacion Financiera para el Financiamiento de Infraestructura (CIFI) led the financing, and was joined by co-sponsors **WRB Serra Part-**

ners and **Banverde Activos**.

With this latest investment, a total of \$76 million has been raised to deploy over 80 MW of rooftop solar in Mexico, over the next 3 years.

"In Banverde, we see a tremendous opportunity to offer busi-

nesses and consumers in Mexico the most attractive type of PPA financing for solar projects, in terms of price and speed, thereby enabling the country's transition to 100% renewable energy," said **Iván Núñez**, director at CIFI. ■

BNDES to finance 700 MW solar complex

«FROM PAGE 1 have a capacity of 700 MW once online.

BNDES has approved a R\$1.47 billion (\$277.8 million) financing for the complex, which is equivalent to about 72% of the project's total investment cost of about R\$2.04 billion (\$0.38 billion).

The plants will each have one of the 14 special purpose entities created under company Janaúba Holding as a bidder, the bank confirmed.

The funds will be used to purchase solar modules, trackers and inverters, and support the con-

struction of a substation and infrastructure to connect to the grid.

The complex is owned by **Elera Renováveis**, the energy arm of Canada's **Brookfield Asset Management**. "Support for the Janaúba Photovoltaic Complex demonstrates BNDES' commit-

ment to projects that expand the participation of renewable sources in the Brazilian energy matrix," said **Petrônio Cançado**, director of credit and guarantees at BNDES. "In addition to generating jobs and income in the surroundings, the project reconciles the preservation of the environment with the development of the country." ■

PPA PULSE ●

Renovatio inks second PPA from private Colombian auction

«FROM PAGE 5 **Grupo Renovatio** has signed its second power purchase agreement under Colombia's first private power auction.

The company will purchase the output of a 19.9 MW solar park owned by Germany's **ABO Wind**, under the terms of a 15-year contract. The project will

deliver 43 GWh of electricity per year to Renovatio, starting in the second quarter of 2023. The auction process, which launched in November and took bid offers in February, aims to award five- to 25-year Colombian peso-dominated PPAs to renewable energy projects in Colombia, including

wind, solar, biomass and small hydro assets.

The first PPA inked was for the output of **MPC Energy Solutions'** 9.5 MW Los Girasoles solar park in the Norte de Santander department ([PFR, 4/26](#)).

Renovatio expects to procure 20 GWh of electricity per month

from 12 to 14 projects with a capacity of about 10 MW each, but could buy more or less generation depending on the offers ([PFR, 11/4/20](#)).

The power purchased will then be sold to regulated clients – customers who consume less than 50,000 KWh per month.

Colombia's **Bancoldex** and Brazil's **Banco Itaú** are working with Renovatio on the auction. ■

PEOPLE & FIRMS ●

Hull Street snaps up outfit started by ex-Cypress Creek staffers

Hull Street Energy has struck a deal to acquire **Foundation Solar Partners** (FSP), the solar development firm set up by three former **Cypress Creek Renewables** officials two years ago.

The company was established in Washington, DC, in 2019 by **Todd Cater**, **Tim Detzbaugh** and **Casey May**, all of whom had previously worked together at Cypress Creek ([PFR, 6/4/19](#)).

Since then, the firm has clinched a series of pre-construction projects, with a focus on utility-scale assets in **PJM Interconnection**, which it started marketing to buyers last year ([PFR, 3/20/20](#)).

To date, FSP has developed and sold 1 GW of solar projects in PJM, including to the FSP founders' former employer, Cypress Creek, as well as **RWE Renewables** and **Pine Gate Renewables** ([PFR, 12/8/20](#)).

Under the terms of its deal with Hull Street, the private equity firm will buy FSP's management team as well as its development pipeline of projects located in the eastern US.

Baker Botts is acting as legal counsel to Bethesda, Maryland-based Hull Street, while **The Law Office of Jon Staley** is advising FSP. ■

NextEra director heads to CapDyn

Capital Dynamics has hired a director from **NextEra Energy Resources**.

Joseph Santo has joined the Swiss fund manager in San Francisco as a director from NextEra, where he held the same rank.

At NextEra, he was responsible for US project acquisitions of distributed solar and energy storage facilities, including standalone storage, as well as microgrid and mobility assets.

He joined NextEra in 2017 as a business development manager, energy storage, having cut his teeth as a private equity M&A associate at **Weil Gotshal & Manges**.

At the start of this year, a trio of senior officials left CapDyn's energy infrastructure business to join **KKR & Co**, namely managing directors **Tim Short** and **Benoit Allehaut**, and vice president **Benjamin Droz** ([PFR, 2/2](#)).

Meanwhile, CapDyn-backed **Arevon Energy Management** recently recruited **Brian Callaway** from **AES Energy** as its CFO ([PFR, 4/16](#)).

More recently, CapDyn announced that it had agreed to sell a 49% stake in its 100 MW/400 MWh Saticoy standalone battery storage project in California to the US subsidiary of **Shikun & Binui** ([PFR, 5/3](#)). ■

PSE&G president to retire

David Daly, the president of New Jersey's largest electric utility, **Public Service Electric & Gas** (PSE&G), is retiring at the end of this year.

Daly has spent 35 years at **Public Service Enterprise Group** (PSEG), including the last five as president of its PSE&G subsidiary. He will stay on in an executive advisory role until the end of 2021 to consult on advocacy for

transmission, energy efficiency and other strategic projects.

Meanwhile, **Kim Hanemann**, PSE&G's senior vice president and chief operating officer, will succeed Daly as president on June 30, becoming the first woman to lead the utility in its 118-year history.

Hanemann has also spent 35 years at PSEG, having joined as an associate engineer in 1986,

and held leadership positions in transmission, electric and gas field operations. She assumed her current role in 2019.

"I look forward to building on the strong foundation that Dave Daly has created as we work toward our Clean Energy Future goals of helping customers use energy more efficiently, and providing them with new clean energy options such as electric vehicles and smart meters," said Hanemann.

"It's been an incredible journey to lead this utility during a time of such transformation and growth," added Daly. "I can think of no better person than Kim to lead PSE&G into the future."

Other roles that Daly has held at PSEG include president and chief operating officer of **PSEG Long Island**, vice president for asset management and centralized services, and vice president of energy acquisition and technology. ■

Puget Sound Energy to bring in new CFO

Washington-based electric utility **Puget Sound Energy** is preparing to hire a new CFO from another electric utility, and who had previously spent 20 years at **AES Corp**.

Kazi Hasan, who is the executive vice president and CFO of Louisiana-based regulated electric utility **Cleco**, will take up the CFO position at Puget Sound Energy on June 28, reporting to president and CEO **Mary Kipp**.

Hasan joined Cleco in 2018, after a 20-year career at AES, including as chief risk officer globally and CFO of the company's Asia Pacific division.

He will succeed Puget Sound's existing CFO, **Dan Doyle**, who has held the position for nearly a decade.

Doyle will stay on at the company as a senior vice president, working on strategic matters relating to its five-year plan, according to an 8-K filed with the

US **Securities and Exchange Commission** on May 16.

Meanwhile at Cleco, **Tonita Laprarie**, the utility's controller and chief accounting officer, will take up an interim CFO role succeeding Hasan on June 25.

In the midst of the C-suite reshuffles, **Canadian Pension Plan Investment Board** (CPPIB) is running a sale process for a portion of its 31.6% stake in Puget Sound Energy. **JP Morgan** recently took final round bids on

behalf of CPPIB, as previously reported ([PFR, 5/11](#)).

Before joining Puget Sound in 2011, Doyle had been president and CEO of **Wisconsin Sports Development Corp**, and before that spent nine years as CFO of **American Transmission**. He has also worked at **Alliant Energy** and **Wisconsin Power and Light**, having started his career at **Arthur Andersen** and **Central Vermont Public Service Corp**. ■

● PEOPLE & FIRMS

DOE Loan Programs Office recruits from Standard Solar

The **Department of Energy's (DOE) Loan Programs Office (LPO)** has recruited a senior financier from **Standard Solar**.

Peter Coleman, who had been a senior vice president, structured finance at Standard Solar, joined the LPO this month as a senior financial adviser, based in Washington, DC.

PFR recently reported that the LPO had also hired **Brian Goldstein**, the former head of project finance at **CoBank**, as a senior consultant (*PFR*, 5/18). Back in March, the DOE appointed **Generate Capital** and **SunEdison** founder **Jigar Shah** to the top job at the LPO as director (*PFR*, 3/4).

Coleman started his career at **Bank of America** as assistant VP, leveraged finance before moving to **Atlantic Power Corp** in 2007 as a director.

He later joined **SunEdison**, where he worked on the initial public offering of **TerraForm Power**. He subsequently led the yield company's acquisition and financing of projects as managing director, global capital markets and structured finance (*PFR*, 4/14/20).

He joined **CleanChoice Energy** as a senior VP, structured finance in 2016 and took up the same role at Standard Solar in 2020. ■

Blackstone hires from BofA, Orion Energy

A director in **Bank of America's** Global Sustainable Finance Group and a vice president at **Orion Energy Partners** have joined the energy team at **Blackstone Credit**.

Zach Rubenstein, who has spent more than five years at BofA and was promoted to director in 2020, has joined the credit arm of **The Blackstone Group** as a principal, effective May 26.

Meanwhile, **Ines Tovo**, who was most recently a vice president at Orion having worked there for five years, also has joined Blackstone Credit as a VP.

"We are pleased to welcome Zach and Ines to the Blackstone Credit team and look forward to working together to con-

tinue to grow our activity in the renewable markets," **Rob Horn**, co-head of energy at Blackstone Credit, tells *PFR*.

Rubenstein started his career at **Altus Power** in 2011 and moved to **Citi's** Alternative Energy Finance group as an associate in 2014. He joined BofA's Cross Asset Strategies & Solutions group in New York in 2016 as a vice president.

Tovo also began her career in 2011, working in leveraged finance at **JP Morgan**, before joining **AlpInvest Partners** as an associate in 2013. She took up the same position at **ECP (Energy Capital Partners)** in 2014 and joined Orion in 2016 where she rose to the title of VP. ■

Sidley recruits veteran tax partner in New York

Sidley Austin has hired a veteran tax partner focused on renewable energy and infrastructure projects.

Hagai Zifman has joined the firm's New York office from **White & Case**, where he had worked as a partner for two years. Before that, he spent about a decade at **GE Energy Financial Services** and **GE Capital**, most recently as tax director.

He has also worked at **Weil Gotshal and Manges**, having started his career at Israeli law firm **A Rafael & Co**.

"Hagai is one of the most respected tax

equity lawyers in the industry," said **Laura Barzilai**, global leader of Sidley's tax, employee benefits and executive compensation practice. "His lengthy track record and firm grasp of the renewable energy market, together with his experience in complex partnership structures, further bolster the strength of our global tax group."

"Hagai's thought leadership and expertise will be a great complement to our existing capabilities in the renewables space," added **Cliff Vrielink**, global leader of Sidley's energy and infrastructure practice. ■

● NEWS IN BRIEF

● LATIN AMERICA

EURUS CLOSES CHILE PMGD DEAL

Developer **Eurus Energy America** has reached financial close on a roughly 80 MW portfolio of PMGD (*Pequeños Medios de Generación Distribuida*) solar projects in Chile. **SMBC** provided the \$80.5 million debt package, which comprises a \$75 million loan and a \$5.5 million letter of credit facility.

● PEOPLE & FIRMS

SOLAR PROPONENT HIRES CHIEF OPERATING OFFICER

EnCap Investments-backed utility-scale solar developer **Solar Proponent** has hired **Alan Stringer** as its new chief operating officer. Stringer joins the firm from **First Solar**. Austin, Texas-based Solar Proponent, is also backed by **Yorktown Partners** and **Mercuria Energy**.

TC ENERGY CFO TO RETIRE

Don Marchand, the executive vice president and CFO of Canadian pipeline operator **TC Energy**, is retiring after 27 years with the company. Marchand will be succeeded by **Joel Hunter**, TC Energy's senior vice president of capital markets who has been with the firm for 24 years.

BLACKSTONE ENERGY PARTNERS APPOINTS SENIOR ADVISER

Blackstone Energy Partners has appointed a senior adviser from engineering and construction firm **Bechtel**. The adviser is **Alasdair Cathcart**, who has spent 32 years at Bechtel and was most recently president of the firm's global oil, gas and chemicals business.

ALTUS POWER HIRES CHIEF LEGAL OFFICER

Commercial and industrial-scale solar developer **Altus Power** has appointed **Sophia Lee** as its new chief legal officer. She joins the company from the **Investors Exchange (IEX)**, where she had been general counsel and secretary.

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