ENVERUS

Energy Transition Pulse

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Select Stories

EDPR & Google to build 650 MWp of distributed solar in U.S.

EDP Renewables signed a framework agreement with Google to develop and install more than 80 distributed solar projects with total capacity of about 650 MWp. The renewables subsidiary of Portuguese utility EDP said the agreement is the largest corporate sponsorship for distributed generation signed between two companies in the U.S.

First projects to be developed in Ohio, ultimately expand to five other states.

The first projects will be developed in Ohio, where Google operates a data center campus in New Albany and a Google Cloud region in Columbus. The projects will ultimately extend to five other states. EDPR NA Distributed Generation will be responsible for the development, construction and operation of the solar farms. The first projects are expected to begin commercial operations by YE24.

Google will partially fund the portfolio by its acquisition of Impact renewable energy certificates, which certify that a given buyer has the rights to the environmental and social benefits of renewable electricity produced by a project. ***Read more...***

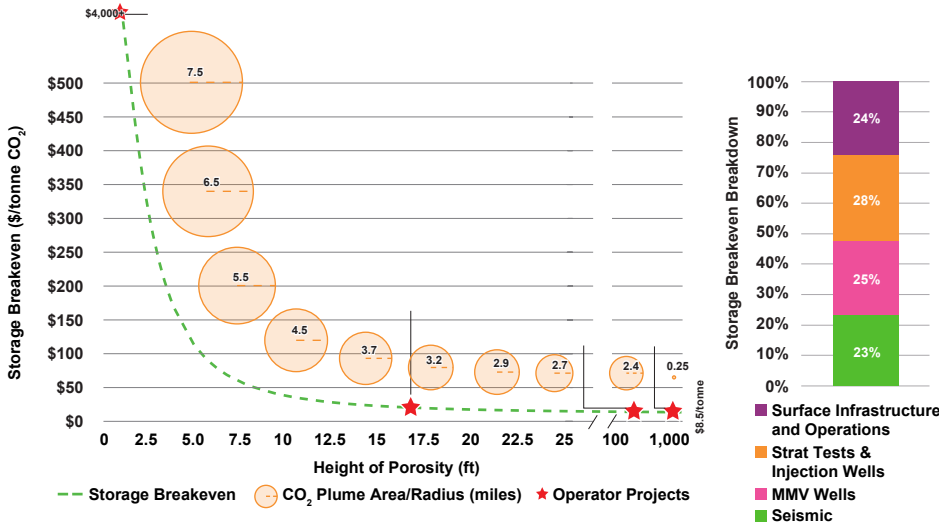
Location and superior asset quality vital to success in CCUS race

The 2022 U.S. Inflation Reduction Act ignited a torrent of activity around CCUS with new incentives that promise to move several projects into profitable territory. But as projects move from ideation to implementation, developers may find more success in some places than others and failure will not be uncommon, Enverus Intelligence® | Research found in its inaugural Play Fundamentals report for the CCUS sector. In fact, the economics across regions can vary by orders of magnitude while mismatches between emissions sources and sinks can make CCUS impractical.

Louisiana has over 400 gigatonnes available, storage breakevens below $15/tonne.

The U.S. has emerged as the clear leader in CCUS because of unmatched reservoir data availability, IRA-improved 45Q tax credits and strong engagement from diverse stakeholders, said the report, which is available to EIR subscribers. But attributes for success are not spread equally. The Louisiana coast, where much of the announced activity will take place, has more than 400 gigatonnes of sequestration space available with storage breakevens below $15/tonne, according to EIR. ***Read more...***

Storage Site Selection Is Critical to Economics



Source | Enverus Intelligence®| Research (04/26/23) "CCUS Play Fundamentals | Separating the Winners From the Losers"

Activity Index

Company	Headline	Category	PG.
Advantage Energy	Advantage's Entropy looks south for CCS opportunities	CCS & Environment	14
Albras	Atlas inks 21-year solar PPA with aluminum producer Albras	International Renewables	13
Anaergia	Anaergia supplies RNG to FuelCell for Toyota port	North American Renewables	7
Atlas Renewable Energy	Atlas inks 21-year solar PPA with aluminum producer Albras	International Renewables	13
Cadeler	Ørsted picks Cadeler for two Hornsea 3 installation contracts	International Renewables	10
CenterPoint Energy	CenterPoint to end coal use in Indiana by 2027	North American Renewables	8
Cerulean Winds	Cerulean plans multi-GW offshore wind system for U.K. O&G	International Renewables	11
CF Industries Holdings	CF Industries & NextEra plan 100 MW green hydrogen plant	North American Renewables	8
Citroniq	Lummus & Citroniq partner for green polypropylene projects	North American Renewables	8
Divert	Divert starts constructing Turlock RNG facility in California	North American Renewables	3
Dow Chemical	Dow joins Linde for net-zero Alberta ethylene project	North American Renewables	6
EDP Renewables	EDPR & Google to build 650 MWp of distributed solar in U.S.	North American Renewables	1
Eelpower	SUSI-Eelpower JV brings northern Scotland's first BESS online	International Renewables	12
Eolus Vind	Eolus selling 5% stake in 1 GW Västvind to Gothenburg Port	International Renewables	12
EQT Corp.	EQT buys nature-based offsets, teams with soil analytics firm	CCS & Environment	16
ERG	Italy's ERG to buy 149 MW solar project in Spain from IB Vogt	International Renewables	12
European Energy	European Energy moves into Colorado with new solar JV	North American Renewables	6
Google	EDPR & Google to build 650 MWp of distributed solar in U.S.	North American Renewables	1
Hitachi Energy	Quanta & Hitachi get EPC for Pattern's hefty SunZia projects	North American Renewables	3
Honeywell	Honeywell buying Compressor Controls Corp. for $670MM	CCS & Environment	16
Lummus Technology	Lummus & Citroniq partner for green polypropylene projects	North American Renewables	8
Mitsubishi	Mitsubishi JV ramps carbon removal credit market	CCS & Environment	14
Mytilineos Energy & Metals	Mytilineos takes 15% stake in planned H2 project in Australia	International Renewables	11
NET Power	NET Power secures $275MM in additional PIPE commitments	North American Renewables	3
NextEra Energy Partners	NextEra Energy goes green with midstream sales	North American Renewables	5
NextEra Energy Resources	CF Industries & NextEra plan 100 MW green hydrogen plant	North American Renewables	8
NW Natural	RNG production begins at 2nd Tyson Foods facility in Nebraska	North American Renewables	3
Ørsted	Ørsted picks Cadeler for two Hornsea 3 installation contracts	International Renewables	10
Ørsted	Ørsted redesigning 1 GW Baltica 3 off Poland to cut costs	International Renewables	10
Pattern Energy Group	Quanta & Hitachi get EPC for Pattern's hefty SunZia projects	North American Renewables	3
Quanta Services	Quanta & Hitachi get EPC for Pattern's hefty SunZia projects	North American Renewables	3
Saipem	Saipem finishes first installment for Dogger Bank wind farm	International Renewables	10
Santos	Santos signs 4 potential emitters for proposed Bayu-Undan CCS	CCS & Environment	14
Skovgaard Energy	World's first dynamic power-to-ammonia project online in 2024	International Renewables	12
Subsea 7	Subsea 7 issues shares as it continues rollup of Seaway 7	International Renewables	13
SUSI Partners	SUSI-Eelpower JV turns on first BESS in northern Scotland	International Renewables	12

North American Renewables

Divert starts constructing Turlock RNG facility in California

Massachusetts-based Divert Inc. broke ground April 26 on a new integrated diversion and energy facility in Turlock, California, which will convert wasted food into renewable energy. The project is expected to begin operations in 2024 and will be able to process 100,000 tons of wasted food annually. The facility will offset up to 23,000 metric tons of CO2 emissions per year and generate enough renewable natural gas to power about 3,000 homes.

The California Public Finance Authority issued a $63 million municipal green bond to partially fund the Turlock project. Forbright Bank said it closed on a debt financing deal to finance the remainder of the project.

Divert's technology depackages wasted food and generates a clean liquid slurry, which is then processed in anaerobic digesters to produce renewable natural gas. The company aims to build 30 facilities across the U.S. that are within 100 miles of 80% of the country's population over the next eight years. It currently manages about 0.5% of wasted food in the U.S. from 5,400 retail stores and intends to grow that to 5% through its expansion goals.

RNG production begins at 2nd Tyson Foods facility in Nebraska

Portland, Oregon-based gas distributor NW Natural and Idaho-based renewables developer BioCarbN began production at their second renewable natural gas facility at a Tyson Foods facility. The project, located at Tyson's plant in Dakota City, Nebraska, captures methane from the facility's operations to convert into RNG to heat homes and businesses.

The partners' first project, at Tyson's Lexington, Nebraska, plant, came online in January 2022. Together, the two RNG projects will produce about 240,000 MMBtu annually (660 Mcf/d). The Dakota City project has a pipeline interconnection into MidAmerican Energy's local gas distribution system, and the Lexington project is tied into Black Hills Energy's gas distribution network. Wisconsin-based Miron Construction Co. was the EPC contractor for both projects.

NW Natural said it is working toward procuring RNG equivalent to 5% of its Oregon sales volumes in 2024 and 6% in 2025. It said the investments are made possible through Oregon's landmark RNG law, Senate Bill 98, which supports renewable energy procurement and investment by natural gas utilities.

NET Power secures $275MM in additional PIPE commitments

NET Power LLC and special-purpose acquisition company Rice Acquisition Corp. II announced an additional $275 million of PIPE commitments in connection with their merger. Occidental Petroleum increased its commitment by $250 million to a total of $350 million—which will increase its ownership stake in NET to about 39% assuming no redemptions—and the Rice family committed another $25 million for a total of $125 million, NET said.

Oxy, primary offtaker of SN1 power, will increase its total NET stake to 39%.

The new PIPE commitments are expected to boost gross proceeds for NET from the combo with Rice to $845 million, consisting of $345 million from the SPAC's trust account, assuming no redemptions, and $500 million from the PIPE at $10/share. Assuming no Rice shareholders exercise their redemption rights, the combined company is expected to have a market cap of more than $2 billion.

The merger was first announced last December and was originally expected to result in a pro forma enterprise value of more than $1.45 billion. NET expects $200 million of net proceeds from the merger, and the PIPE will fully fund corporate operations through commercialization of the Serial Number 1 power plant near Odessa, Texas. Net proceeds above $200 million will support SN1 capital needs and future commercial origination efforts.

The SN1 project, announced last November, is expected to begin commercial operations in 2026 and will be located at an Oxy-hosted site, with the E&P company being the primary offtaker of generated power. NET has said it will be the world's first utility-scale gas-fired power plant with near-zero atmospheric emissions.

Quanta & Hitachi get EPC for Pattern's hefty SunZia projects

Albuquerque, New Mexico-based Pattern Energy Group LP awarded EPC contracts to Houston-based Quanta Services Inc. and Hitachi Energy for its SunZia Transmission and SunZia Wind projects in the U.S. Southwest, said will connect power markets to the largest renewables project in the Western Hemisphere. SunZia Transmission is designed to transmit about 3 GW of the 3.5 GW generated by SunZia Wind on a 550-mile, primarily bi-directional 525 kV high-voltage DC transmission line from central New Mexico to south-central Arizona.

Quanta biz Blattner to install more than 900 turbines at 3.5 GW SunZia Wind.

Quanta was selected to provide a turnkey solution for the HVDC SunZia Transmission line. In addition, Blattner Co., a Quanta operating company, will provide turnkey solutions for SunZia Wind, which will be located in Torrance, Lincoln and San Miguel counties, New Mexico, and an associated switchyard. The SunZia Wind work includes installation of more than 900 turbines, 10 substations, multiple operations and maintenance facilities, and more than 100 miles of transmission lines.

Hitachi Energy will supply the HVDC converter stations and will utilize its HVDC Light technology and Modular Advanced Control for HVDC digital platform for SunZia Transmission. The technology enables efficient transfer and integration of huge volumes of renewable energy over long distances, increasing the amount of clean power available for homes and businesses in the region, Pattern said.

The companies did not reveal the size of their contracts. However, Patterson said SunZia would have a $20.5 billion expected economic impact through the direct investment of more than $8 billion of capex, the provision of power for 3 million people and the creation of more than 2,000 jobs.

The projects continue to seek remaining approvals from federal agencies, including the Bureau of Land Management, and local jurisdictions and stakeholders. Construction is scheduled to begin this year.

ENVERUS
EVOLVE
CONFERENCE

Exploring the Future of Energy and Sustainability Through Civil Dialog and Critical Thinking

May 16-17, 2023 | Virtual

There is robust discussion in industry, government, academia and NGOs regarding the global energy future. One thing is certain, dialog is vital.

Moderated by Texas State Geologist Dr. Scott Tinker, host of the PBS talk show Energy Switch and founder of the Switch Energy Alliance, our panelists will discuss some of the most controversial topics in the global spotlight. The panel will engage in lively discourse around several critical energy and climate questions.

Dr Scott Tinker
Chairman, Switch Energy Alliance

- Do we need to engage in civil dialog and debate?
- What are the merits of mitigating future climate change versus adapting?
- Should we advance energy technologies via the private sector or government mandates and incentives?
- What is the role of oil and gas companies in decarbonization?
- Is there a need for human diversity to solve environmental and energy challenges?
- Is there such a thing as clean energy? Should nuclear play a role?
- What will be required to significantly accelerate solar, wind and batteries?
- Can these issues be addressed if all global citizens are not lifted up economically?

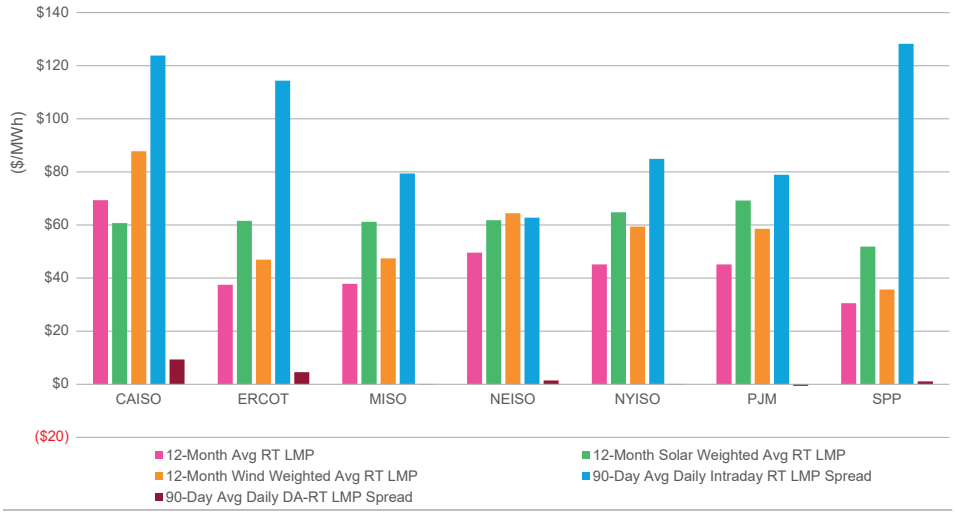
Meet Our Panelists

Register Today

Chris Wright
CEO and Chairman,
Liberty Energy

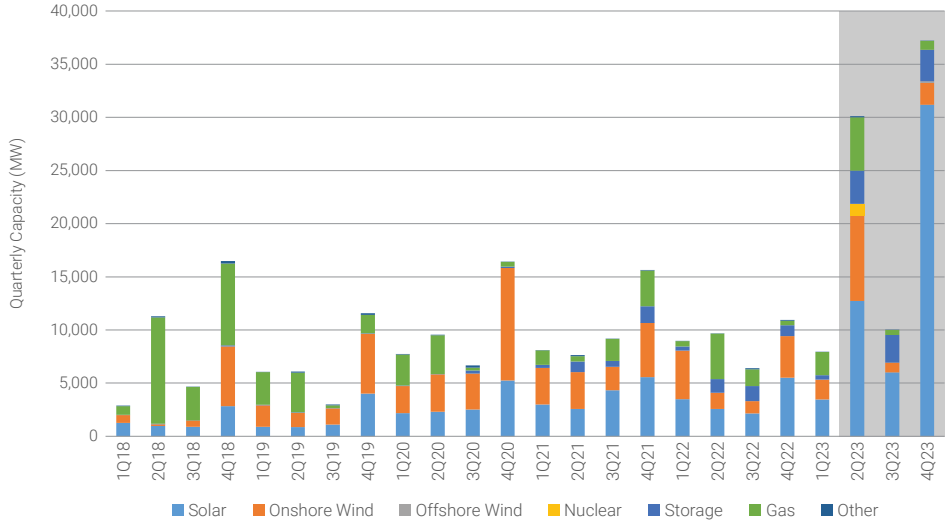
Julio Friedman
Chief Scientist, Carbon Direct
(formerly in the Obama DOE)

Locational Marginal Pricing for Electricity with Wind & Solar Weighting

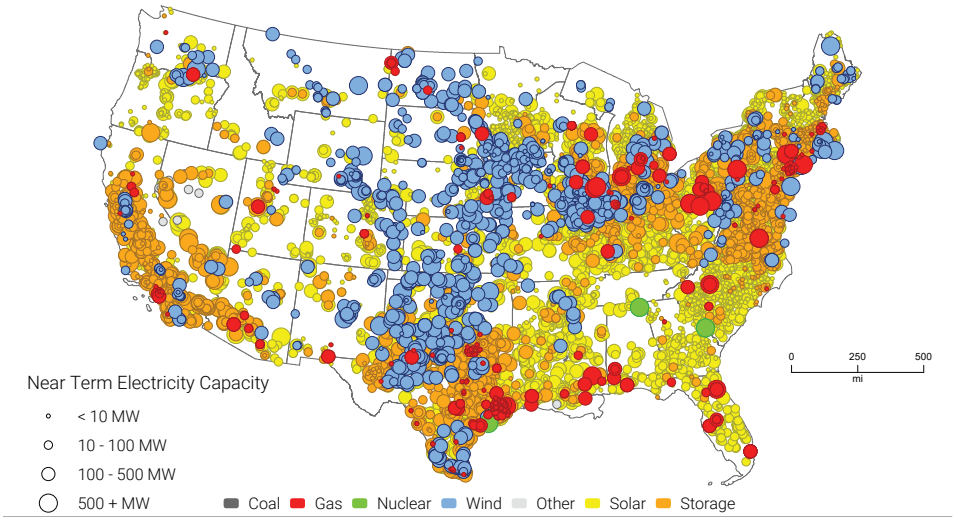


Source | Enverus Prism (interact with the workbook)

Existing and Proposed Electricity Generation Capacity Additions



Generation Type



Source | Enverus Prism (interact with the workbook)

North American Renewables

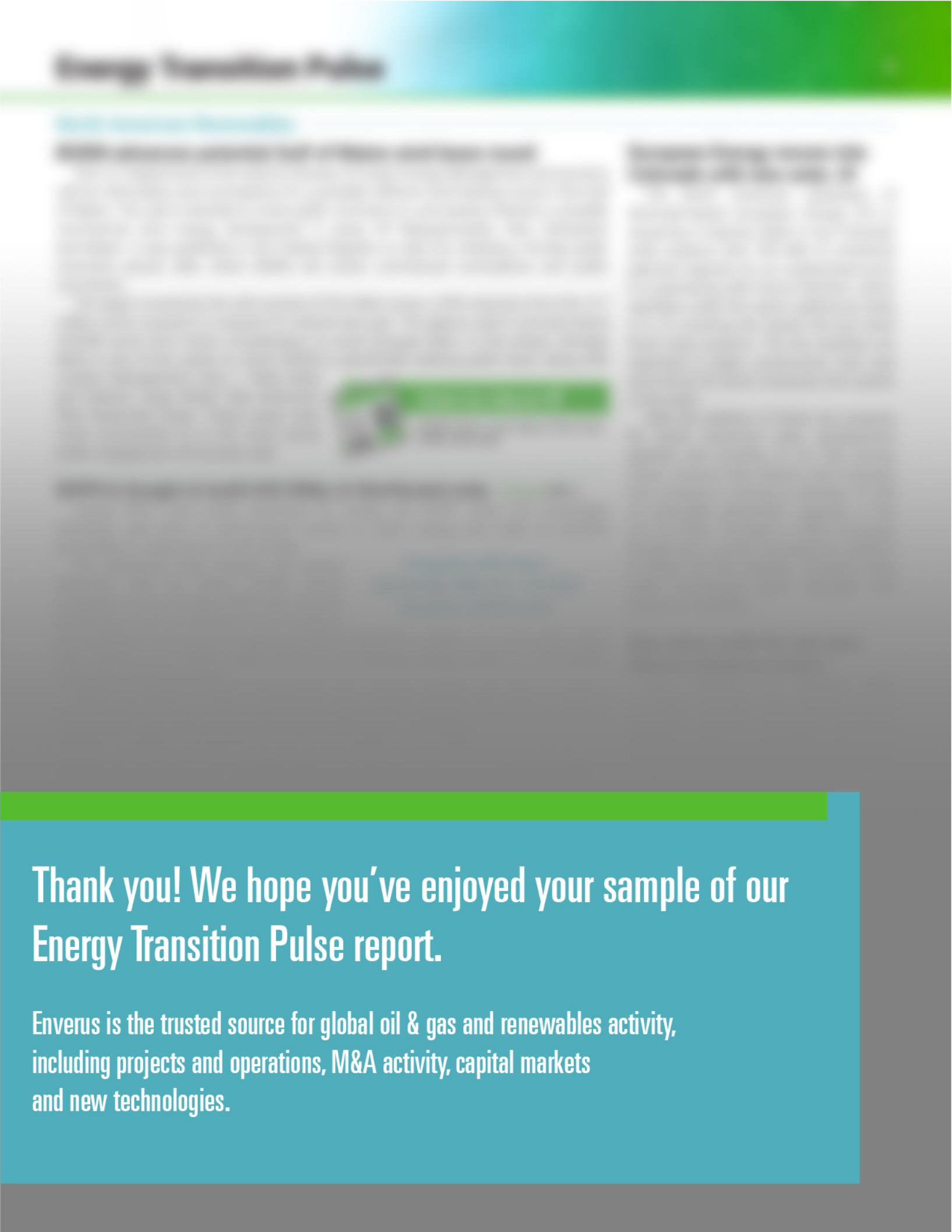
NextEra Energy Partners goes green with midstream sales

NextEra Energy Partners LP plans to focus solely on renewable energy in the future, and to do so it plans to divest midstream gas assets and buy out convertible equity portfolio financings. The NYSE-traded subsidiary of NextEra Energy Inc. said it expects to achieve "real zero" carbon emissions in 2025 as a result of the sales and become the leading 100% renewables pure-play investment opportunity. The parent company, which also trades on the NYSE, will continue to invest in both non-renewable energy, primarily natural gas, and renewables. It also aims to eliminate its Scope 1 and 2 emissions without the need for carbon offsets, per a plan released last year, but not until 2045.

NEP believes the changes could invite a new class of investors looking for a carbon-free, pure-play option to participate in the energy transition. It currently has a renewables portfolio of about 9 GW.

NEP is launching separate sales processes for its South Texas Midstream LLC and Meade Pipeline Co. natural gas pipeline assets in 2023 and 2025, respectively. STX Midstream is a JV with private equity firm EIG that owns six gas pipelines in Texas. A seventh pipeline owned by the JV was sold in April 2022. Meade, which NEP acquired in 2019, has a 39.2% stake in the 1.7 Bcf/d Central Penn Line, part of Williams' Transco network that connects Marcellus gas production to the Mid-Atlantic and Southeast.

Proceeds from the sales will be used to buy out convertible equity portfolio financings of STX Midstream, 2019 NEP Pipelines and NEP Renewables II, after which the only remaining convertible equity portfolio financing buyouts with equity requirements through 2026 will be a Genesis Holdings financing that is limited to $294 million in 2026. NEP will also use proceeds to finance its growth and eliminate all equity requirements through 2024. Lastly, the company entered an agreement to suspend parent company NextEra's incentive distribution rights fees in all quarters in 2023 through 2026, which will replace the cash available for distribution from the midstream asset sales.



Thank you! We hope you've enjoyed your sample of our Energy Transition Pulse report.

Enverus is the trusted source for global oil & gas and renewables activity, including projects and operations, M&A activity, capital markets and new technologies.

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Top 10 Renewables M&A Deals of Last Month by Deal Capacity

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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North American Renewables

Leidman to Vitesco partner for green polypropylene program

[illegible] Vitesco Technologies [illegible] Leidman [illegible] Vitesco [illegible] Vitesco [illegible] Leidman [illegible] Vitesco [illegible] Leidman [illegible] Vitesco [illegible] Leidman

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Largest New Term-U.S. Renewable Generation Projects

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Interactions and Recommendations

Mixed policy clarity for new Norwegian CCS installation contracts

Mixed messaging – CBD Battery Cell Transport to cut costs

Belgium finalizes first nuclear-free winter, Spain and Italy

Read between the lines and make recommendations to differentiate in the CCS installation capacity

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Policy, politics and Parliamentary debate

Australian players could ride offshore wind surplus for A$1–$2bn

New South Wales gets 1.2 GW of fresh renewables funding

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Industry policy and Telecommunications

Mumbai Grid dynamic power tie agreements program unifies in 2024

Japan ISO to buy 120 MW solar project in Egypt from Al Fajr

SUSE Enterprise 15 Service as Grid Work to Southern Southeast

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Interconnectors and Transmission

U.K. and Netherlands to explore 2 GW cross-border connection

Belgium 7 leases returns as 3 continues ruling of Thorong 7

Wärtsilä lifts 21 year solar PPA with aluminum producer Alcoa

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Nation signs 3 potential suitors for proposed Baja Indigo CCS

Mitsubishi, JX merge; unites second-tallest refiner

Reading Offer Focus On Lorem Ipsum Lorem Dolor Sit Amet Consectetur

Mississippi Energy Index could be 12% approaching

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Weekly Landmark for 2025

Offshore Decommissioning

BSEE begins seabed clearance efforts, assets sold, and scrapping in Gulf

Decommissioning shifts and acquisitions mark changing landscape in Gulf of Mexico

Schlumberger Petrochemical Engineering Company – Al Jubail Complex