



Weekly News

8 March 2024

Vietnam to name investors for \$2.4bn Nghi Son LNG power plant in Q2

Investors for the 1,500 MW LNG-fuelled Nghi Son power plant are expected to be named in the second quarter of this year, state media reported, citing authorities in Thanh Hoa province. Over in the Philippines, meanwhile, three leading energy companies aim to acquire the BW Batangas FSRU and form an integrated LNG regas and power gen joint venture, in a deal valued \$3.3 billion.

The consortiums bidding for the Nghi Son project include a JV between JERA and Sovico Group, the Korean trio KOSPO, KOGAS and Daewoo E&C, Anh Phát Construction, Gulf Energy Development, SK E&S and a JV between Vietnam Oil and Gas Power and T&T Group – all aiming to get operational before 2030. The integrated LNG and power project have a Capex of over 58 trillion Vietnamese Dong, equalling US\$2.4 billion.

The bidding process will be conducted “fairly, publicly and transparently,” Đỗ Trọng Hưng, secretary of Thanh Hóa provincial party committee assured, as the government wants the project to be implemented in a “stringent” and timely manner.

The integrated LNG-to-power plant will come as another large infrastructure project in the province after the Nghi Sơn Oil Refinery and Petrochemical Complex. Spread across 68 hectares, it will include a 1,500 MW combined-cycle power plant, and LNG import and regas terminal and a 1-km wave barrier to allow carries to berth



Port of Nghi Son refinery with the LNG regas terminal planned nearby

safely and discharge their super-chilled cargo. Once operational around 2030, the terminal and adjacent power plant will have a lifespan of 50 years and is set to cover large parts of the province’s gas and electricity needs.

Philippine firms partner on \$3.3bn LNG and power project

At the same time, three top Philippine energy companies are gearing up to acquire the BW Batangas FSRU and form an integrated

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Coal-to-gas switching imminent amid rising coal prices; analysts note

With gas prices at the Dutch Title Transfer Facility (TTF) starting to fall below \$8/MMBt on mild weather and low heating demand, “prices become more palatable for optimization,” RystadEnergy noted given that burning gas gets more economical than burning coal for power generation. Coal API2 front-month prices increased as US sanctions on Russian coal producers are likely to curb deliveries to Europe.

Up to mid-March, temperatures are forecast to be warmer-than-normal range and Europe’s storage facilities largely full as the end of winter nears.

Norwegian pipeline gas deliveries, meanwhile, have retreated slightly to around 333.6 million cubic meters per day as a range of planned maintenance work gets underway. Russian pipeline gas flows to eastern Europe are fairly rangebound at 88.77 MMcm/d, Rystad Energy understands. Gas stocks are at record highs as spring approaches, with European reservoirs 63.11% full



at the end of February at 72.55 bcm, with levels in the upper boundary of the five-year band.

Ample supplies, record storage and mild weather add to the bearish sentiment on TTF gas prices while US sanctions on the Russian coal

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LNG regas and power gen joint venture, in a deal valued \$3.3 billion. Aboitiz Power and Manila Electric (Meralco) agreed to invest in San Miguel Corp's 1,278 MW Ilijan power plant and a new 1,320 plant due operational by year-end.

The floating LNG terminal at Batangas – owned by Linseed Field Corp., a unit of Atlantic Gulf & Pacific Co. (AG&P) – is being used to source, store and supply regasified natural gas for two adjacent power stations. BW Batangas commenced operations in July 2023 as the Philippine's second FSRU, after a first floating LNG import terminal was commissioned in April that year by San Miguel Corp on Luzon Island.

By acquiring BW Batangas, the power producers seek to directly source and process LNG in a bid to lower fuel and related electricity costs. Aboitiz Power owns and operates nearly 50 power stations across the Philippines and supplies electricity to large parts of Luzon, Mindanao and Visayas.

"What we need to do is make sure that the country has enough stable, reliable, and cost-effective capacity to power the economy," Aboitiz Power CEO Emmanuel Rubio said, noting electricity prices in the Philippines are among the highest in Southeast Asia.

In a statement to the Hong Kong stock

exchange, Meralco and Aboitiz Power said "both companies agreed together with San Miguel Corp to invest over US\$200 billion in an LNG imports and regasification terminal. Through their 60:40 joint venture Chromite Gas Holding, the two partners also agreed to splash out on the Ilijan power plant and a new combined-cycle unit currently under construction.

"The proposed collaboration venture among the parties is valued at approximately US\$3.3 billion enterprise value, while Meralco's equity contribution will be approximately US\$1.2 billion prior to any asset-level debt financing that may be considered," they specified. ■

German regulator plans five new Mega-Routes to expand the grid

BNetzA, the German energy regulator, has launched new plans to extend the power transmission network by adding so-called Mega-Routes at an estimated cost of €110 billion, for onshore grid lines alone. Three of the five envisaged direct current grid links, with 2 GW capacity each, are designated to run in north-south direction and two in east-west direction.

On top of the cost for expanding the grid on land come another €160 billion for offshore wind power lines, bringing total cost to around €320 billion. All of the above costs will be incorporated into the network fees and have to be eventually shouldered by the electricity billpayers.

Klaus Müller, head of the network regulatory authority, said "the new plan sets out "for the first time, which power grid we need to complete the energy transition." Merely the start and end points of the envisaged power lines have been defined while "the exact course will be determined in subsequent procedural steps," he noted, leaving room for a public debate.

Railway power lines might relieve strained national grid

DB, the German railway operator, is testing whether power lines on its tracks can relieve the country's wider electricity network. The railway's proprietary electricity grid covers more than 7,900 km and DB has been working with the TSO TenneT to use these lines as an alternative route for transporting excess wind power from the north to the industrial south.

Though construction of key areas of the Germany's central north-south power transmission line SuedLink (2 GW) started in 2023, the overall grid build-out

faces huge delays which undermines renewable expansion targets. German utilities were forced to throttle their renewable energy output by more than 7,000 gigawatt-hours (GWh) last year due to insufficient grid connections and a lack of spare power transmission capacity. ■



Gas to Power Journal

Publisher
Stuart Fryer

Editor
Anja Karl
Tel: +44 (0)7733 684 682
anja@gastopowerjournal.com

Advertising
David Jeffries
Tel: +44 (0)7973 642 086
djeffries@lngjournal.com

New Business & Databases
Stephan Venter
Tel: +44 (0) 207 017 3407
venter@gastopowerjournal.com

Subscriptions
Margarita Tokere
Tel: +33 (0)7 67 62 58 77
margarita@gastopowerjournal.com

Layout & Production
Vivian Chee
chee@thedigitalship.com

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producers SUEK and Mechel are expected to reduce thermal coal deliveries to Europe, pushing up prices. Hence, analysts reckon coal to gas switching is likely to occur – even after accounting for carbon prices for March at €53.46 per tonne.

Asian buyers on the lookout for spot cargoes

Over in Asia, buyers keep their eyes peeled on how LNG prices may evolve to optimize spot activity. "Vietnam's PetroVietnam Gas appears to have procured a spot cargo for an April delivery at its Thi Vai LNG terminal, taking advantage of the lower prices," analysts pointed out.

Most Asian markets headed into the winter season for ample LNG inventories and

this is still the case as the end of winter gets near. Japanese power utilities reported LNG inventories of 2.16 million tonnes on February 25, some 1% than typical end-February numbers.

With above-normal temperatures forecast in Japan and South Korea for March, while the anticipated cold snap in northern China is likely to end early next week, analysts anticipated the draw on LNG inventories to be low.

"Like Europe, with coal prices increasing, and a lower cost of gas and LNG, coal-to-gas switching is likely to become more prevalent in the coming months," analysts commented, suggesting: there may be increased demand to optimize power generation with cheaper spot LNG cargoes. ■

EPA to exempt existing gas-fired power plants from new rules

The US Environmental Protection Agency (EPA) will push back most contentious elements of its novel regulation by exempting gas-fired power plants – at least for now – from requirements to capture 95% of CO₂ emissions by 2035. But tough new rules will apply as planned for coal-fired power plants and new gas-fired ones that have not been commissioned yet.

In a U-turn to its previous timing, the EPA announced it will review standards for gas-fired power plants that are already in operation with a view to factoring in more pollutants. The change comes after environmentalists lambasted an earlier draft over allegedly allowing too much toxic air from refineries, industrial sites and fossil power generators which disproportionately harms deprived neighbourhoods.

"As EPA works towards final standards to cut climate pollution from existing coal and new gas-fired power plants later this spring, the agency is taking a new, comprehensive approach to cover the entire fleet of natural gas-fired turbines, as well as cover more pollutants," EPA Administrator Michael Regan said in a statement.

"Stronger, more durable approach"

Regan hailed the new plan as "stronger, more durable approach" that is bound to lower emissions more than the current proposal, while better protecting vulnerable frontline communities. Though environmentalists applaud the tougher stance, they oppose the delay and fear a new President may reverse the move entirely.

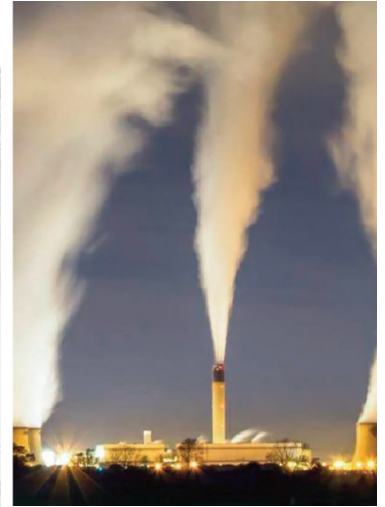
Senator Sheldon Whitehouse, a Rhode Island Democrat, called EPA's decision "inex-



pliable." Rather enraged he pointed out that "making a rule that applies only to coal, which is dying out on its own, and to new gas power plants that are not yet built, is not how we are going to reach climate safety."

CCS retrofits or hydrogen co-firing

In May 2023, the EPA set new standards aimed at cutting carbon emissions from gas- and coal-fired power plants by 617 million tonnes between 2028 and 2042. Utilities were asked to retrofit their plants with carbon capture technology that can siphon CO₂ from the smokestack, or use clean-burning hydrogen as a fuel.



Coal power stations set to keep running into the 2040s and gas power units with a capacity of 300 MW and more that operate at least half of the time are expected to install CCS that removes 90% of their carbon emissions by 2035. Alternatively, gas power units need to be co-fired with 30% hydrogen by 2032 and 96% hydrogen by 2038.

Critics said at the time the EPA proposal is exempting too many gas-fired power plants and is grandfathering coal power units that will be retired before 2032, or those that shut down by 2035 and are dispatched less frequently. The risk is that some utilities might choose to run their fossil power plants less often to avoid costly retrofits. ■

Nevada regulators approve NV Energy's \$2bn spending plans

Public Utilities Commission of Nevada (PUCN) has approved NV Energy's plans to invest \$2 billion on the Valmy repowering project, various retrofits and new solar PV and battery resources. At the North Valmy Generation Station, some \$83 million will be spent to convert the two-unit, 522 MW plant from coal to natural gas by the end of 2025.

North Valmy is the last and final coal-fired power plant that NV Energy has in its portfolio, with the ageing plant being jointly owned with Idaho Power.

Unit 1 of the ageing plant started operation back in 1981, generating some 254 MW based on a Westinghouse turbine and generator as well as a Babcock & Wilcox boiler. Unit 2, meanwhile, was commissioned in 1985 and generates the equivalent of 285 MW of electricity based on a GE turbine and a Foster Wheeler boiler. Thermal coal to fuel the plant has been transported via railroad various mines in Colorado, Utah and Wyoming.

Apart from the North Valmy repowering,

NV Energy got conditional approval to go ahead with the 400 MW Sierra Solar project, balanced by a four-hour battery in Northern Nevada. Though regulators greenlight the

project, they voiced concern about its cost and vowed to protect the ratepayer in case of cost overruns.

Construction costs for Sierra Solar was capped at \$1.5 billion, with PUCN mandating NV Energy to pay credits to customers if the project doesn't meet its completion goal of April 2027. The regulator warned Sierra Solar would be "the most expensive project ever proposed to be built or owned by NV Energy."

Still, the project is allowed to advance as the US state of Nevada targets to generate half of its electricity needs from renewables by 2030, and aspires for 100% by 2050. ■



View of North Valmy Generation Station

Chinese buyers invited to bid for term LNG cargoes from Sakhalin-II

Russia's Sakhalin Energy Investment Company has approached Chinese gas buyers and affiliate power producers with an offer to ship 12 LNG cargoes per year over a term period of up to five years, starting this August. The price tender – linked to Brent crude oil prices – closed on Tuesday, sources told S&P Global, while Japanese buyers have not been invited.

At the height of the 2022 energy crisis, savvy Chinese buyers snapped up several shipments from the Sakhalin-II export terminals at nearly half the current spot prices. Deliveries were arranged from August through December that year, in a tender dedicated specifically to pre-notified buyers.

With today's tender, Sakhalin Energy seems to take a similar approach. Cargoes from the liquefaction plant in Russia's Far East have often been offered to legacy buy-

ers and stakeholder in the project – not the wider market. Shareholders of Sakhalin Energy are Gazprom (50% + 1 share), Mitsui (12%) and Mitsubishi-affiliate Diamond Gas (10%) while Shell's stake had been confiscated by a Russian auditor following the Kremlin's invasion of Ukraine.

The two liquefaction trains at Sakhalin II entered service in 2009 with a total capacity of 9.6 million tons per annum. Plans for a Train-3 are in the making for quite some time.

supporting policies to keep importing gas from both Sakhalin-I and -II.

Going forward, Japan may become even more reliant on Russian LNG given that some US projects are being delayed over permitting issues, the energy ministry noted. Still, Japanese trading houses and utility sources told S&P Global they were not invited to bid for the latest term tender for shipments from Sakhalin II.

Price review to start in April

Sakhalin Energy Investment Company will be reviewing prices for LNG shipments from April onwards. Under current contracts, buyers in Japan and South Korea used to secure Sakhalin-2 cargoes linked with a 13% or 13.5% slope to customs-cleared Brent crude oil rates.

Most of the terminal's one or two spot cargoes per month, meanwhile, have been headed to China which might make the country the preferred destination for future term deliveries. ■



Tanker loads at Sakhalin-II

Japan reliant on cargoes from Sakhalin

Unphased by criticism, Japan continued to rely on LNG cargoes from Sakhalin to cover nearly a tenth of its gas demand in 2023, similar to previous years – despite Western sanctions against Russia. "Finding a substitute would take several years," the trade ministry said,

Europe focusses US LNG as regas capacity on track to reach 29.3 Bcf/d

Europe's LNG buyers keep their eyes peeled on cargoes from the United States as regas capacity in the EU-27 is on track to expand to 29.3 Bcf/d in 2024, a rise of more than one-third compared with 2021, according to GIIGNL data. Henry Hub prices spot gas prices fell to record lows in late February, making US LNG more attractive.

The Henry Hub daily gas price eased to \$1.50/MMBtu on February 20, the lowest price in inflation-adjusted dollars since at least 1997, according to Refinitiv Eikon data. High gas production, sluggish demand amid unseasonably mild weather and high inventories made prices fall for much of last year and the first two months of 2024 – a trend likely to continue.

US LNG account for nearly half of Europe's and the UK's total imports, according to CEDIGAZ. The market share of American super-chilled gas across the Atlantic almost tripled from 2.4 Bcf/d, or 27% in 2021 to over 6.5 Bcf/d, or 44% in 2022 on the back of Russia's invasion of Ukraine, and increased yet again last year to 7.1 Bcf/d, or 48% of total imports.

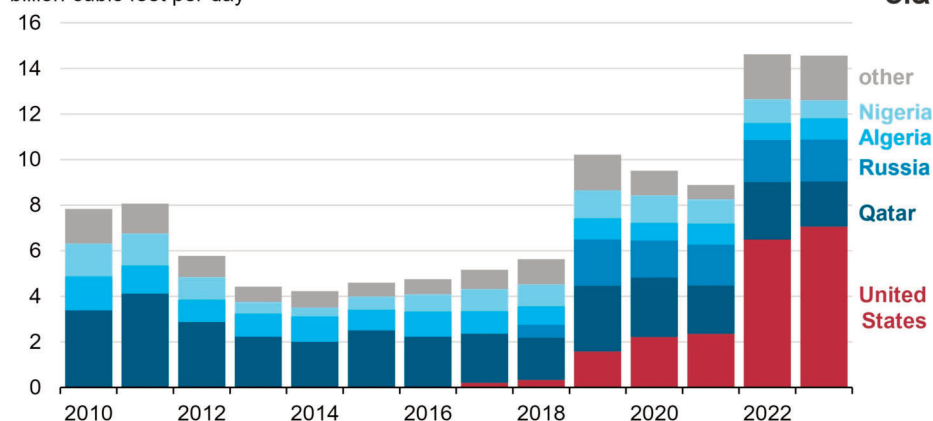
Eager to source non-Russian gas supply, north-western European countries rushed to realise dormant LNG expansion projects or developed new terminals: Germany developers added 1.8 Bcf/d in 2023 and plan to add 1.6 Bcf/d this year while Netherlands, Spain, Italy, Finland and France stepped up

their regas capacity by a combined 3.2 Bcf/d over the past two years.

Though Europe's LNG imports set fresh records June 2022 through April 2023, when shipments peaked 18.1 Bcf/d, demand remained fairly unchanged over the second

half of last year – despite an estimated 4.2 Bcf/d of regas capacity additions. Mild winter weather and energy conservation measures lowered demand and made Europe end the winter season with record-high gas in storage. ■

Europe (EU-27 and UK) annual LNG imports by exporting country (2010–2023)
billion cubic feet per day



Data source: CEDIGAZ and the International Group of Liquefied Natural Gas Importers (GIIGNL)

Note: Other includes Angola, Argentina, Australia, Cameroon, Egypt, Equatorial Guinea, Indonesia, Libya, Mozambique, Norway, Oman, Papua New Guinea, Peru, Trinidad and Tobago, United Arab Emirates, and Yemen. LNG=liquefied natural gas

"Bone-dry" exhaust achieved at Holyoke plant, enhances CO2 capture

With over 99% water vapour removed, the exhaust of a gas-fired power station at Holyoke, Massachusetts, is now "essentially bone dry," ESG Clean Energy's president Nick Scuderi announced. That way, post-combustion carbon capture gets more viable and cost-efficient, as the developer seeks to scale the technology and apply it to "all types of fossil fuel engines."

Traditional CCS systems struggle to separate carbon dioxide from a mixture of nitrogen, oxygen, carbon monoxide and water vapor which gets in the exhaust steam as a by-product of combustion. Yet, in all carbon capture processes the water vapor contained in the

feed steam negatively interferes with mechanisms to absorb CO₂, researchers at ETH Zurich and Stanford University found. Some substances have been developed that can selectively attach or react with the CO₂ and let other gases pass by, but the water vapor issue remains.

back in February – and that rate has now been improved to over 99%.

Scaling the system prior to roll-out

Plans for a second gas-fired power plant at Holyoke are in the making. The equally-sized plant would also run on Caterpillar engines and could be used for further tests.

Going forward, ESG is striving to scale up its water removal technology to meet the carbon mitigation needs of small and large power facilities, and eventually the transportation industry. The exhaust treatment system can be retrofitted onto current operating power plants, the developer said. In fact, ESG plans to implement all its fossil power plant units and has licensed the technology to Camber Energy for use in all of Canada and multiple locations in the United States.



Test plant at Holyoke, powered by CAT gas engines

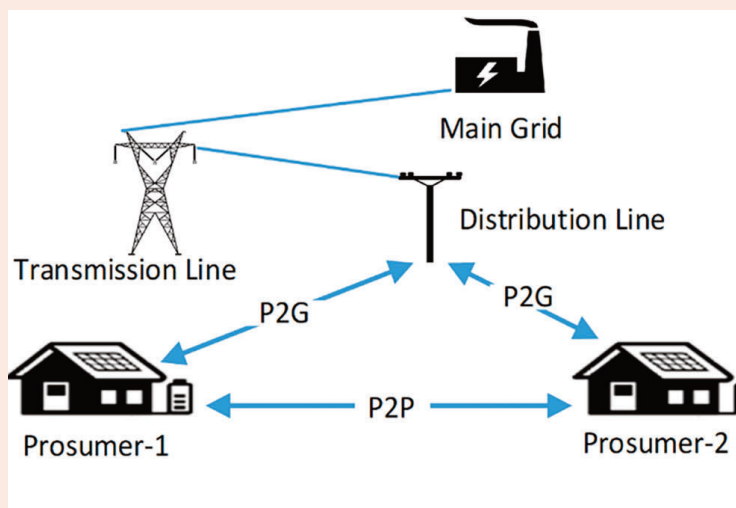
At Holyoke, the cooled exhaust of the 4.4 MW plant, powered by a Caterpillar gas engine, was fed through a ceramic membrane to remove water prior to post-combustion carbon capture. Tests reached over 90% efficiency in removing water vapour already

Tanaka Lab and JERA set up CO2-free power trading for end-users

Tokyo School of Engineering's Tanaka Laboratory and JERA are working to empower small businesses and individuals to trade self-generated 24/7 carbon energy among themselves, using blockchain technology. Peer-to-Peer trading fosters decentralised use of rooftop solar and hydrogen-fired thermal power, improving Japan's security of supply while reducing its dependency on energy imports.

Peer-to-Peer, originates from the telecommunication field and relates to systems in which links are direct rather than routed through a central server. Researchers at Tanaka Lab have been transferring this concept to decentralised power generation as well as supply-and-demand forecasting and optimization.

JERA, Japan's largest LNG importer and



power producer, aims to supply 24/7 carbon-free energy through a combination of zero-emissions hydrogen-fired thermal power and renewable energy, notably solar power combined with energy storage. Working with Tanaka Lab, the utility will now strive to set up P2P electricity trading while tracking the supply of 24/7 carbon-free power.

P2P electricity trading will give small- and medium sized industries a fresh in-

centive to retrofit their onsite power plants to run on hydrogen or ammonia and sell the emissions-free electricity directly to nearby off-takers. Facilitating such trade could reduce the need to dispatch utility-scale coal or gas power stations and contribute to the development of a decarbonized society. Once established in Japan, that approach may well be replicated in other industrialised nations.

Retirements of US generating capacity to plunge by 62% in 2024

Planned retirements of US power stations slow markedly: Just 5.2 GW of capacity is due to close in 2024 – a 62% plunge from last year when 13.5 GW was shuttered. According to the government's monthly generator inventory, the retreat comes amid a slowdown in coal phase-outs after 22.3 GW of US coal-powered capacity retired over the past two years.

The 2.3 GW of coal-fired capacity schedule to retire this year makes up 1.3% of the US coal power fleet that was in operation by the end of 2023.

After slowing down this year, coal retirements are planned to pick up again in 2025 when operators envisage to retire 10.9 GW.

The age of retiring coal power units is almost 54 years on average – about 10 years older than the ones still in operating. These ageing units have become uneconomic to run in competition with more fuel-efficient combined-cycle gas power units and, increasingly, renewables.

The largest coal retirements in 2024 will be Seminole Electric Coop's Unit 1 (626 MW) in Florida and Homer City Generating Sta-

tion's Unit 1 (626.1 MW) in Pennsylvania, the EIA inventory reads, adding the two other coal-fired units at Homer retired last year already.

Mystic to shut down in May

Looking at gas power, analysts noted the 2.4 GW of scheduled retirements make up 46% of expected capacity closures in the United States and 0.5% of currently operating US gas-fired capacity.

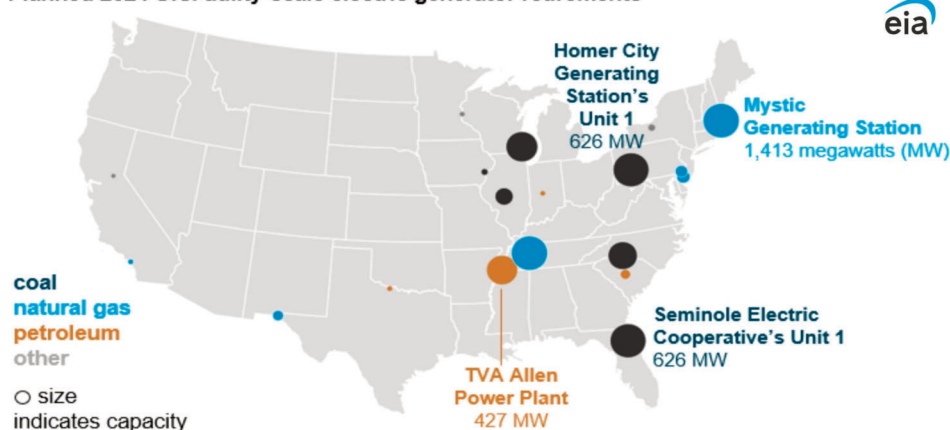
Mystic Generating Station – a six-unit, 1,413-MW combined-cycle facility in Massachusetts – will account for 60% of the gas-fired capacity retirements in 2024. As one of the nation's oldest plants, Mystic has been powering the Boston area since the

1940s. The other five petroleum and gas-fuelled units have already retired; hence the last unit retirement will shutter the entire plant when its cost of service agreement expires in May.

The other 32% of the retiring gas-fired capacity will come from 16 simple-cycle combustion turbines totalling 754.0 MW at the Tennessee Valley Authority's (TVA) Johnsonville station, the inventory shows.

In addition, more than 450 MW of U.S. petroleum-fired capacity is scheduled to retire in 2024 – almost all of it from TVA's Allen power plant where the units were the 20 old combustion turbine units were dispatched during times of peak demand. Allen was primarily a coal-fired plant before TVA retired all coal-fired units in 2018, replacing the capacity with the Allen combined-cycle gas plant.

Planned 2024 U.S. utility-scale electric generator retirements



Data source: U.S. Energy Information Administration, *Preliminary Monthly Electric Generator Inventory*, December 2023
Note: MW=megawatts.

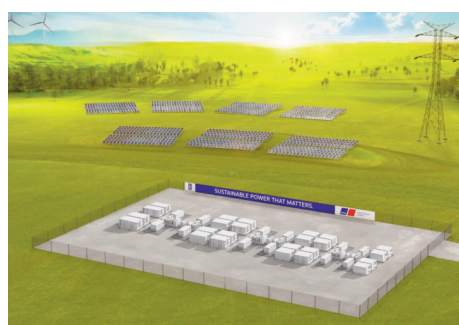
mtu batteries stabilise Latvian grid

Latvian transmission system operator Augstsprieguma tīkls (AST) has turned to Rolls-Royce to supply a mtu energy storage to stabilise the grid before it will be synchronised – alongside those of other Baltic states – with continental Europe's electricity grid in 2025. mtu's Energy Pack, with 80 MW power output and 160 MWh storage capacity, will be commissioned at two sites next autumn.

One 20 MW/40 MWh battery storage will be installed at the AST substation in Tume and another 60 MW/120 MWh battery storage at the AST substation in Rezekne. Hereby, the battery system will provide the fast and automatically activated frequency regulation reserves that will allow the Baltic TSO to operate their grids in sync with the European network.

The Power Packs will provide the power reserves at significantly lower costs than the existing conventional power plants, hence Rolands Irklis, AST chairman singled out

batteries as "very important for our future energy system." Both parties have signed a 5-year long-term service agreement for the system.



Wärtsilä supplies one of Scotland's largest energy storages

The Finish technology group Wärtsilä is about to supply a 300 MW/ 600 MWh energy storage system to Zenobē, an electric vehicle fleet specialist, in Kilmarnock, Scotland. Based on QuantumHE technology, the facility will be one of the largest in Scotland to date once operational by the end of 2025.

The project will be implemented under the UK National Grid's NOA Stability Pathfinder programme, which aims to cost-effectively address stability issues the power transmission system due to the rising infeed of intermittent renewable generation. The energy storage will help balance supply and demand and ensure that Britain's abundant wind power output is not getting wasted.

The GEMS Digital Energy Platform, Wärtsilä's intelligent system, will ease network constraints by importing electricity at times of peak renewable generation. This will enable Zenobē to participate in the most valuable UK electricity markets. The project follows the announcement in February of a 200 MW /400 MWh energy storage system Wärtsilä will deliver to Zenobē in Blackhillock, Scotland. That site is on track to be operational by autumn 2024.

NFE expands operations in Brazil and Puerto Rico

New Fortress Energy (NFE) as reported financial results for the fourth quarter and the full year 2023, having expanded its LNG-to-power business in Brazil and Puerto Rico. Performance shifted to the downstream power sector as during the second half of the year, there was no profit from cargo sales," CEO Wes Edens disclosed.

NFE reported a net income of \$215 million in the fourth quarter and \$549 million in the full year 2023, an almost three-fold increase from the \$194.48 million achieved in the previous year. Adjusted earnings before share reached \$1.3 billion for the full year 2023 which pushed up earnings per share to \$2.75 for the full year. Edens called it "a record by all of our reported metrics" especially since all performance since summer was reaped from downstream operations.

The integrated LNG and power company owns, operated or provides natural gas to

thirty plants in five countries with total capacity of approximately 8.7 GW. Downstream assets are in high demand as countries switch fuel to become more sustainable.

In Brazil, NFE completed the Barcarena and Santa Catarina terminals and placed them into service in February 2024. "This milestone now fully opens our Brazil operations, and we expect to begin generating revenue in March," Edens commented. Demand for gas-fuelled power generation is growing significantly in Brazil to balance renewables and provide peaking power, which gives NFE's terminal room to grow and expand.

In Puerto Rico, the installation of two FEMA Power plants was completed in 2023, totalling 350 MW of capacity. According to NFE, the power complex was dispatched approximately 99% of the time since installation.

First cash flow from PortoCem PPA expected in mid-2026

In January, NFE acquired a 1.6 GW capacity reserve contract – PortoChem PPA – from Ceiba Energy in exchange for convertible preferred stock. The assets under the PPA are connected to NFE's existing LNG terminals in Brazil and could bring \$280 million in annual capacity payments over 15-years, with cash flows to begin no later than July 2026.

The transaction is expected to close in March this year, though regulatory approval for the PPA transfer in Brazil is still ending. Once in place, NFE plans to transfer the PPA to new power assets connected to its existing Brazilian LNG import terminals – Barcarena and Terminal Gas Sul.

Going forward, the New York-headquartered company wants to make use of its LNG regas infrastructure in Barcarena to expand its nearby power generation complex by 1.2 GW, with commercial operation of the expansion set for 2026.

The initial 630 MW power gen development in Barcarena "remains on schedule for COD in the third quarter of 2025," the developer pointed out. ■



View of NFE's Barcarena FSRU offshore Brazil

GE to supply aeroderivative turbines for gas peaking plant in Colorado

Kindle Energy, a Princeton-based power gen developer with 11 GW under management, has turned to GE Vernova to supply six LM2500XPRESS aeroderivative gas turbines for the Mountain Peak Power (MPP) plant in Colorado. Once operational in 2025, MPP is expected to deliver up to 162 MW of fast-ramp capacity to Colorado's United Power cooperative.

Colorado aims to move away from coal-powered electricity generation by 2031. Seven coal power plant were still operating in the state early last year – until one was retired and converted to natural gas. The remaining six plants are scheduled to either close or be converted to natural gas to provide, "peaker" power on hot afternoons with high electricity demand, or cloudy and still days when solar and wind do not provide adequate electricity.

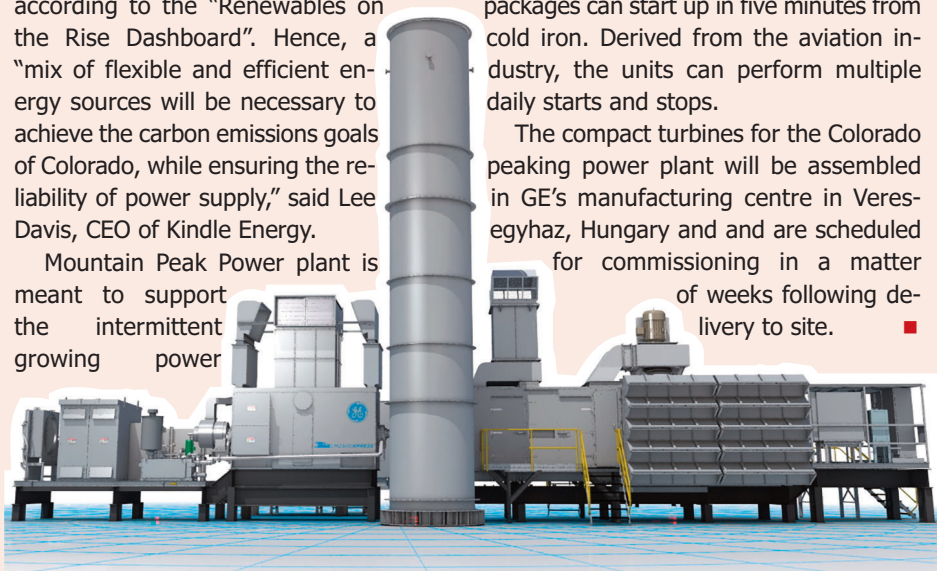
Apart from the gradual coal exit, renewables are on the rise in Colorado.

Today, seven times as much solar power and 2.3 times as much wind power are produced in the state compared to 2013, according to the "Renewables on the Rise Dashboard". Hence, a "mix of flexible and efficient energy sources will be necessary to achieve the carbon emissions goals of Colorado, while ensuring the reliability of power supply," said Lee Davis, CEO of Kindle Energy.

Mountain Peak Power plant is meant to support the intermittent growing power

generation supply from nearby wind farms and solar fields in northeast Colorado. The plant's six flexible LM2500XPRESS power packages can start up in five minutes from cold iron. Derived from the aviation industry, the units can perform multiple daily starts and stops.

The compact turbines for the Colorado peaking power plant will be assembled in GE's manufacturing centre in Veresegyhaz, Hungary and are scheduled for commissioning in a matter of weeks following delivery to site. ■



LM2500XPRESS unit

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