



Texas Energy Fund backs wave of dispatchable capacity

Build-out of firm generation capacity in ERCOT is accelerated by the Texas Energy Fund, which approved several low-interest loans to gas-fired power projects. Industry observers see the 1.1 GW Land-Bridge/NRW project as “a strong candidate” for funding support.

Situated atop abundant Permian gas reserves with access to high-voltage power transmission, the site in Reeves County, Texas, offers competitive fuel costs and rapid dispatchability – criteria the fund is prioritizing for loan awards. Financial close on the project, however, hinges on a securing a power purchase agreement (PPA) with a hyper-scale operator to underwrite financing.

Cheap loans enhance project economics

By lowering borrowing costs, the Texas Energy Fund, is tipping economics toward new dispatchable generation after years of underinvestment and in the face of massive load growth.

NRW already secured a \$216 million, 20-year loan at 3% from



the Fund to support a 456-MW expansion at its T.H. Wharton plant in Houston in August 2025. Similar loans are on offer for dispatchable power projects that enhance grid stability in the face of massive load growth driven by data centers and AI clusters.

Enerdatics estimates data center demand in ERCOT has surpassed 20 GW – about one-third of the 60-GW interconnection
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AEMO tender slated to open in early Q4

The Australian Energy Market Operator (AEMO) will open a tender for 500 MW firm power gen capacity in New South Wales early in Q4-2025. Eligible projects include large-scale batteries, gas-fired generation, and virtual power plants – ideally ready for start-up before 2027.

Expressions of interest or shortlisted bids are not public. Only successful projects from the first firming tender in 2023 are named, such as AGL, Akaysha Energy, Iberdrola, and Enel X. These four companies, and others are expected to bid in the upcoming 2025 tender round in October.

Five tenders have been held between April 2023 and February 2025 for generation, long-duration storage, and firming infrastructure (see map). Project bids were examined against a set of merit and eligibility criteria, e.g. track record, broader community benefits and financial



value to NSW energy consumers.

Sydney, Newcastle, and Wollongong regions face

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backlog – intensifying pressure on grid stability. Texan state regulators have streamlined interconnection through a “connect-and-manage” policy, but financing remains a bottleneck.

Wholesale prices in ERCOT’s West and South zones have averaged \$45–\$65/MWh this year, with peak spikes above \$200/MWh during summer heat, highlighting the value of firm gas-fired capacity to balance intermittent renewables.

Loan for Rock Island Generation project

In early July, Texan Governor Greg Abbott

has approved a loan to support the Rock Island Generation project in Colorado County, west of Houston. The 20-year loan of up to \$105 million will be provided through the Texas Energy Fund, with a view to getting the 122 MW gas-fired power plant into operation by June 2027.

Total cost of the project is capped at \$175 million, developers disclosed, and the government-backed loan of up to \$105 million will come at a 3% interest rate. This loan agreement between the Public Utility Commission of Texas and the Kerrville Public Utility Board for the Rock Island Generation project is the first under the fund’s

In-ERCOT Generation Loan Program.

Once operational, the 122 MW power station will connect to the South Texas Electric Cooperative’s Rock Island substation of the Electric Reliability Council of Texas (ERCOT) grid. This region borders ERCOT’s Houston Load Zone which includes major cities like Houston, Pasadena, and The Woodlands — forming the fifth-largest metropolitan area in the United States.

According to the governor’s office, the new facility will deliver “dispatchable power close to one of the state’s most electricity-hungry areas.” ■

Iberdrola to splash out \$18.5bn on US gas and power grid

US utility Avangrid has announced plans of its Spanish parent company Iberdrola Group to spend \$18.5 billion in the US by 2028. Focus will be on expanding network capacity to support the build-out of data centers.

The capital plan, revealed at Iberdrola’s Capital Markets Day, will be focusing on rebuilding and replacing aging infrastructure in electric and gas utilities, expanding grid capacity to meet AI-driven load growth. The aim is to provide more firm energy for New York, Maine and Connecticut, where Avangrid’s utilities serve more than 3.4 million customers.

CEO José Antonio Miranda said the \$18.5 billion investment was designed to “secure the nation’s energy future,” noting that rapidly rising demand from electrification and digital industries requires a more reliable and adaptable grid.

The near-\$20 billion investment plan is designated to make the grid more resilient and accelerate New England’s economic competitiveness. Investment will target replacing and rebuilding aging infrastructure, and also harden the grid to reduce restoration costs from increasingly severe storms.

Avangrid operates more than 10.5 GW of generation capacity across 24 states, and through its eight regulated electric and natural gas utilities in the Northeast. The Orange-based company has a total asset base of roughly \$48 billion, supports over 70,000 jobs and added an estimated \$10 billion to America’s national GDP. ■



Avangrid substation Klamath

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are at risk of facing potential energy shortfalls during the summer of 2027-2028. The selection process following the tender will hence prioritise projects that can provide dispatchable capacity and firm electricity supply to these areas during peak load periods.

The latest tender is part of the NSW Electricity Infrastructure Roadmap. It follows the first firming tender held in 2023, which supported key developments such as AGL’s Liddell battery, Akaysha Energy’s Orana bat-

tery, Iberdrola’s Smithfield battery, and the state’s first major VPP delivered by Enel X.

As the coal power exit progresses in NSW and grid operators integrate more inherently intermittent renewable energy sources, firming capacity projects are essential to maintaining grid stability. The ministry’s new tender underscores the state government’s commitment to secure, reliable, and cleaner energy, while encouraging private sector investment. ■

Gas, not oil, meets most of Middle East electricity demand growth

Cooling and water desalination needs will make electricity demand in the Middle East and North Africa rise by another 50% by 2035. Natural gas is set to meet half of electricity demand growth to 2035, the International Energy Agency (IEA) finds.

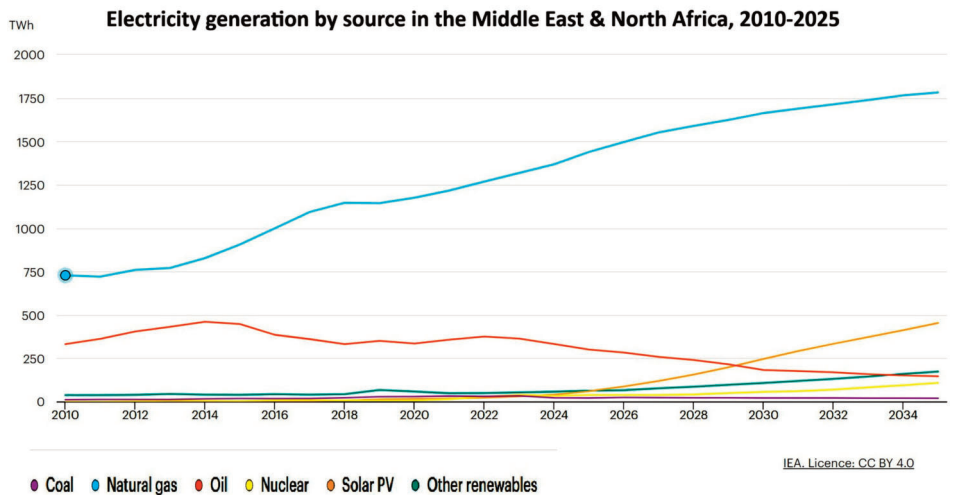
Extreme heat and water scarcity are a burden for many parts of the Middle East and North Africa, hence 40% of the electricity demand in the so-called MENA region is set to come from cooling and desalination. The region's power demand already tripled between 2020 and 2024 – adding the equivalent of the current demand of Germany and Spain combined.

"To meet this demand, power capacity over the next 10 years is set to expand by over 300 gigawatts (GW), the equivalent of three times Saudi Arabia's current total generation capacity," said IEA Executive Director Fatih Birol.

Massive investment

Power sector investment in the region reached \$44 billion in 2024 and is projected to rise by another 50% by 2035. Nearly 40% of this spending is set to go towards grids, followed by flexible power generation capacity.

Today, oil and natural gas overwhelmingly dominate the region's electricity mix,



accounting for over 90% of total generation. But Saudi Arabia and Iraq are pursuing policies to burn less oil for power generation, freeing it up for higher value uses at home or export.

If gas-burn can meet half of the Middle East's electricity demand growth, this would help reduce oil-fired output to just 5% of

total generation – down from 20% today, IEA analysts point out. Solar PV capacity is on course to rise tenfold by 2035, pushing the share of renewables in the region's power mix to around 25%, and nuclear capacity set to triple.

On the contrary, if electricity systems in the region were to diversify less quickly than envisaged this would cost countries dearly:

"In such a scenario, oil and gas demand for electricity generation would rise by over a quarter by 2035," the IEA finds; warning "this would reduce oil and gas export revenues by \$80 billion, and cause a \$20 billion increase in import bills."

“

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– Fatih Birol, IEA Executive Director

Amprion CEO calls Germany's gas plant expansion 'aspirational'

Germany's plan to build 20 GW of new gas-fired power plants by 2030 seems overly ambitious and aspirational, Amprion CEO Christoph Müller warned. Though the tender is meant to take place quickly, turbine manufacturers don't have "50 turbines in stock waiting to be picked up," he noted.

Speaking to Politico Pro Energie und Klima, Müller also flagged constraints in finding enough skilled workers, securing suitable sites, and navigating permit procedures – all of which could significantly slow progress. Even if the tender process was completed fast.

Earlier proposals under Germany's 'Power Plant Strategy' (Kraftwerksstrategie) called for 4 tenders of 2.5 GW each for hydrogen-ready gas plants – about 10 GW in total – with the condition that these plants switch fully to hydrogen between 2035 and 2040.

To support the 'Kraftwerksstrategie' the

government has allocated roughly €16 billion (about \$17 billion) in subsidies – covering both capital costs and operating subsidies – for hydrogen-ready gas-fired plants in the near term. The H2-readiness mandate has, however, been scrapped in the interim.

Bowing to pressure from industry, German Chancellor Friedrich Merz has conceded to slow the pace of its renewable energy build-out which raises the role of pure gas-fired generation – without co-firing hydrogen. Merz said that Germany might "do a little less in terms of clean energy

expansion," to curb the surge in system costs for grid expansion while relying more on fossil power sources.

Aligning with government targets, Uniper pledged it will invest around €5 billion by 2030 in its renewable and gas-fired portfolio, aiming for 15–20 GW of new capacity overall.

Analysts, however, voiced concern that the 20 GW target for new gas capacity is "ambitious" – as it would require building about 3 GW per year, while recent years have typically seen 1–2 GW per year of new gas-fired plant construction.

ACWA Power awards Kent owner's engineer role for Saudi H2 hub

ACWA Power has appointed UK-based Kent Group as owner's engineer for the Yanbu Green Hydrogen Hub, designed to produce 400,000 tonnes per year. Production costs of green H2 in Saudi Arabia could fall below \$1.50 per kg by 2030, among the cheapest worldwide.

Located on the Red Sea, the Yanbu project will include 4 GW of electrolysis, desalination plants, ammonia production lines and a dedicated export terminal. At full scale, the facility is expected to produce up to 400,000 tonnes of renewable hydrogen annually, which will be converted into more than 2.2 million tonnes of green ammonia for international markets.

With over 4 GW of electrolysis capacity planned, Yanbu will be nearly twice the size of the NEOM Green Hydrogen Project, positioning the Kingdom as a global leader in low-carbon fuel production.

The move comes as production costs of green hydrogen in Saudi Arabia fall, currently estimated at about \$2.16/kg. Analysts project costs could fall near \$1.50/kg by 2030 and potentially close to \$1/kg longer term, among the most competitive globally.

Kent will oversee the front-end engineering design, provided by Técnicas Reunidas and Sinopec, ensuring compliance, safety and design optimisation before the project advances to the EPC phase. ■

Funding awarded for H2 storage near UK power plant

Knapton H2 Storage, a consortium led by UK's Northern Gas Networks, has been awarded 'discovery' funding to evaluate the geological storage potential near the Knapton Power plant. Funding comes as part of the regulator Ofgem's 'Revenue = Incentives + Innovation + Outputs' (RIIO-2) price control for gas and electricity networks.

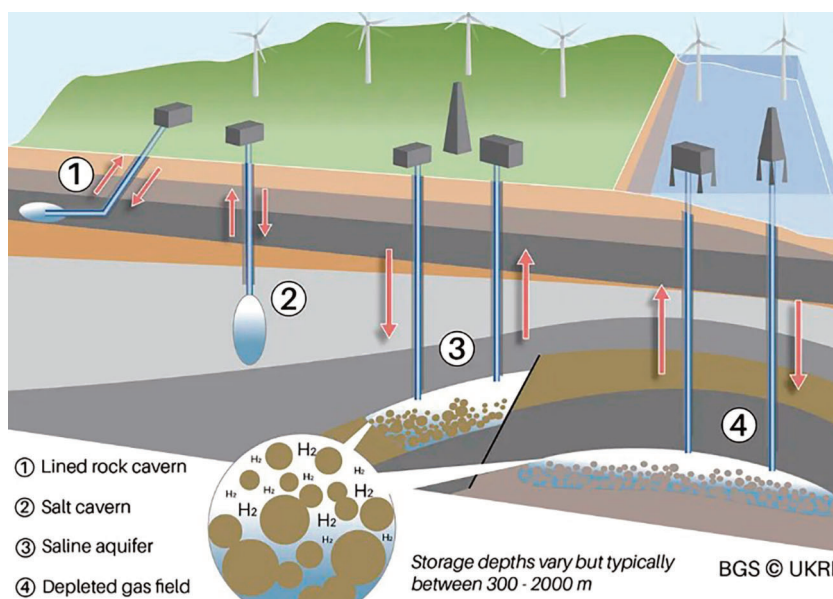
The study will assess the feasibility and cost for storing hydrogen adjacent to a gas-fired power station in North Yorkshire. If proven successful, the project could serve as a blueprint for decarbonising gas-fired peaking power plants.

Centrica is redeveloping the Knapton power plant site as a hub for solar power, green hydrogen production and battery storage. The adjacent Knapton H2 Storage is a consortium led by Northern Gas Networks and partnered with BGS, Centrica Energy Storage+, Third Energy Onshore and

the University of Edinburgh.

The wider Knapton, Vale of Pickering and North Yorkshire area are home to numerous depleted hydrocarbon reservoirs which may have potential for repurposing, alongside other porous rock aquifers, and salt deposits. The overall Yorkshire Basin has an estimated hydrogen storage potential exceeding 557 TWh – far greater than near-term national needs.

Industry reports forecast the need for 3.4 TWh of hydrogen storage by 2030, rising to 9.8 TWh by 2035, to balance grid flexibility and seasonal supply swings. ■



Four methods of storing hydrogen

JERA strives to produce H2 at fully-running power station

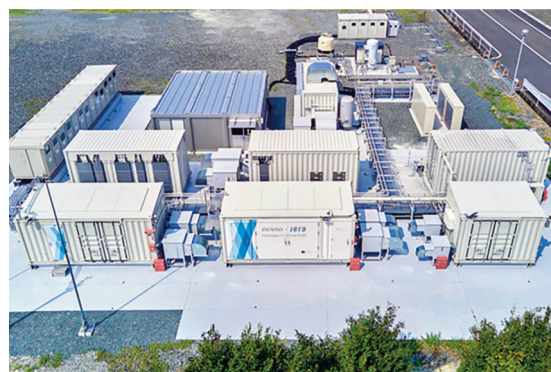
Japan's largest utility JERA has started tests to produce hydrogen at fully operational thermal power station in Nagoya, Aichi, using DENSO-developed SOEC*1 water electrolysis systems. Looking ahead, the partners intend to scale electrolysis power from 200 kilowatt (kW) to several thousand kW.

The aim is to commercialise and roll-out Solid Oxide Electrolyzer Cell (SOEC)-based next-generation fuel production systems.

Co-firing hydrogen, or ammonia, at thermal power stations at scale would be a quantum leap for JERA, which is targeting net-zero CO₂ emissions across domestic and international operations by 2050. Gas-fired power plants are meant to gradually transition toward co-firing or full hydrogen combustion, re-

ducing reliance on natural gas while maintaining dispatchable capacity.

Demonstrating efficient, on-site hydrogen production at JERA's Shin-Nagoya Thermal Power Station is meant to open a pathway for thermal plants to evolve from conventional fossil-based generation to zero-emission facilities. A retrofit would enhance the lifetime of thermal plants in a decarbonized energy mix – reducing the stranded asset risk. ■



H2-production demo at JERA's Shin-Nagoya power station



Vistra to build dispatchable gas power units in the Permian

Vistra Corp has taken a final investment decision (FID) to build two gas-fired power units, with 860 MW combined, on the site of its Permian Basin Power Plant. The expansion is part of Vistra's wider plan to spend more than \$1 billion and add over 2,000 MW of new dispatchable capacity in Texas' ERCOT market by 2028.

To enhance Texas' grid reliability, Vistra added some 1,000 MW since 2020 by increasing output of its existing gas power fleet and bringing new projects at Brightside, Emerald Grove, and DeCordova into commercial operation.

Completed upgrades of existing gas power plants add more than 400 MW of dispatchable capacity combined. Additional projects and upgrades over the course of next year are meant to bring the additional capacity to 500 MW.

Works are on-track with repowering the Coletto Creek Power Plant, due to retire in 2027, with approximately 630 MW of gas-fuelled generation capacity.

Making bold plans, Vistra in May last year touted it will add up to 2,000 MW of

dispatchable gas-fuelled power capacity in West, Central, and North Texas.

Envisaged projects include an 860 MW simple-cycle peaker plant in West Texas, the replacement of Coletto Creek and upgrades of various assets with a view to adding more than 500 MW of summer capacity and 100 MW of winter capacity.

Upon completing these projects, Vistra will have invested nearly \$2 billion to add approximately 3,100 MW of new generation capacity in Texas since 2020 – all fuelled



Vistra's Permian Basin Power Plant

Sembcorp bags 10-year PWWA for Oman Salah plant

Sembcorp Industries has bagged a new 10-year Power and Water Purchase Agreement (PWWA) with Nama PWP to supply 465 MW of electricity and 15 million imperial gallons of water per day from the Salalah Independent Water & Power Plant.

The contract commences in on April 4, 2027, the day after the current 15-year PWWA expires, and runs until April 3, 2037.

Payment structure mirrors that of existing arrangements: Nama PWP will pay capacity charges for the plant's availability; separate energy, water output, and fuel charges depending on delivery and usage; and fixed/variable operation & maintenance fees.

The actual tariff rates under the new PWWA are not disclosed. Charges are denominated in Omani Rial, with many components indexed to the Rial-US Dollar exchange rate, US inflation (especially for turbines/generators),

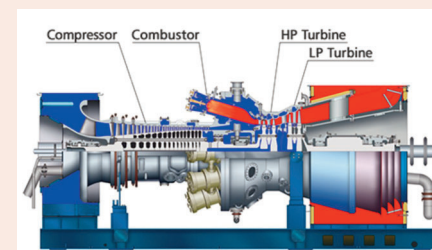
and local Omani inflation.

The Salalah IWPP is part of Sembcorp's Oman portfolio of over 1 gigawatt of power generation, combining both gas and renewables. The water & power plant includes a combined-cycle gas power plant and a reverse-osmosis seawater desalination unit. ■



Sembcorp's Salah IWPP

Chinese steelmaker orders first M100S BFG turbine



Scheme of M100S turbine

Mitsubishi Power has received the first order for its newly developed M100S gas turbine, designed for blast furnace gas (BFG)-fired plants. The order was placed by the Chinese steelmaker Jiangsu Li-huai, with the turbine set to power a 100 MW combined-cycle power plant at a steel mill starting 2027.

The M100S turbine will be at the heart of the on-site power plant, set to electrify steelmaking at the factory in Li-huai Steel's Huai'an City facility in Jiangsu Province, slated to start operations in less than 14 months' time.

Developed by combining BFG turbine technology with Mitsubishi's JAC gas turbine platform, the M100S offers high efficiency, flexible load response, and the ability to co-fire with other steel by-product gases. The Japanese manufacturer has positioned the turbine as a cleaner, more efficient alternative to conventional boiler-turbine-generator units, which are widely used in China's steel sector.

The turbine and key components will be built at Mitsubishi Power's Takasago works in Hyogo, Japan, with additional equipment supplied locally in China. ■

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