



Weekly News

6 August 2021

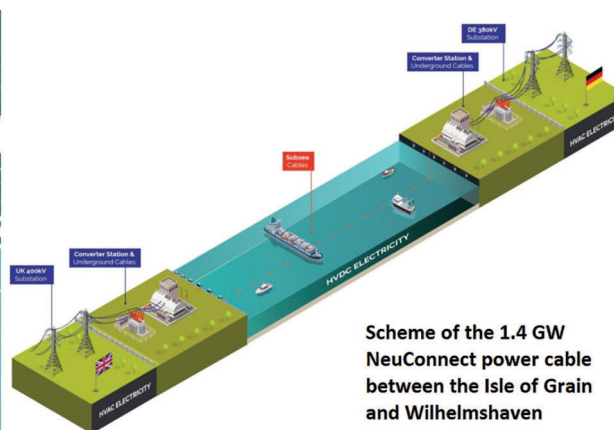
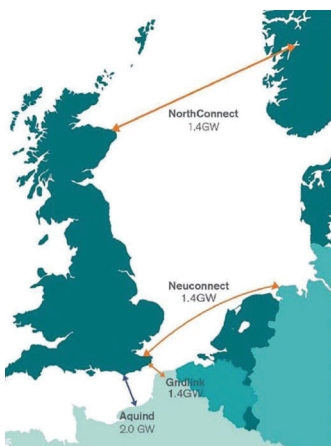
Project-financed interconnector to link UK and Germany by 2023

One of the first project-financed electric interconnectors – the 1.4 GW 'NeuConnect' – is due to be built between the Isle of Grain in the UK and Wilhelmshaven in Germany by 2023, or early 2024. Meridiam, Allianz and Kansai Electric Power have put nearly £1.4 billion in upfront and will recoup their investment from future revenues.

Changes to both German and UK law and regulatory frameworks were made to attract private investment, as regulations had typically favoured transmission system operators (TSOs). "Now the project financed model of delivery has been set, we are likely to see more interconnectors developed this way in the future," a NeuConnect representative said.

Project-financed interconnectors are still eligible to apply for public funding if they have Project of Common Interest (PCI) status. NeuConnect has this status and will receive grant funding for project-specific aspects on the EU side. Post-Brexit, this funding is not available on the UK side.

Still, Natural Grid has a total of four project-financed intercon-



Scheme of the 1.4 GW NeuConnect power cable between the Isle of Grain and Wilhelmshaven

tors under development. Private capital is considered to be in the interests of UK consumers, promoting competition in the interconnector market, reducing costs and speeding up construction of new links.

Exporting excess wind power to the UK

NeuConnect will allow 1.4GW of electricity to flow in either direction. Once operational, it will provide an effective outlet for surplus wind energy from northern Germany, helping to reduce bottlenecks re-

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Mitsubishi Power to be integrated into MHI as of October 1

Mitsubishi Heavy Industries (MHI) will absorb the business operations and employees of Mitsubishi Power by October 1, 2021. Design, manufacturing, sale, installation and engineering of thermal power generation systems will be transferred to MHI while the management of the two companies will be unified to become more efficient and dynamic.

By integration Mitsubishi Power, the parent company MHI wants to better promote the use of carbon-free fuels like hydrogen and ammonia at various demonstration plants around the world. In addition, a unified and streamlined management will be formed to "respond more flexibly to changes in the global markets."

Focus on 'Energy Transition' and 'New Mobility'

In its 2021 Medium-Term Business Plan, MHI Group set out plans to substantially increase its corporate value by 2030. The two business units "Energy Transition" and "New Mobility & Logistics"



are meant to serve as the company's growth engines. Ammonia-fired gas turbines are under development.

Engineers at Mitsubishi are busy developing a

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sulting from weaknesses in Germany's North-South domestic grid. "It will allow our energy grids to share excess power – making sure renewable energy is not wasted," the German Chancellor Angela Merkel commented.

From the UK perspective, the over 700 km of subsea cables will provide a source of cheap green energy which could deliver an estimated £3 billion of consumer benefits. In the long run, however, Britain aspires to become a net exporter of electricity rather than a net importer as it currently is.

Wind power capacity is projected to rise by over 20 GW by 2040, creating surplus energy for export, while the UK's Depart-

ment for Business, Energy and Industrial Strategy (BEIS) supports a rise of the current 5.7 GW interconnector capacity to 18.9 GW. At the moment the UK has just 6 interconnections (2 with Ireland, 2 with France, 1 with the Netherlands and 1 with Belgium) with 6 further projects under construction or confirmed. Germany, in contrast, has 54 interconnectors and another 8 at advanced planning stages.

Renewables build-out requires grid integration

Across Europe, a further 93 GW increase in cross-border grid capacity will be needed

over the next two decades to support and enable the transition to renewables, the European Network of Transmission System Operators for Electricity (ENTSO-E) estimates.

The European Council has set targets for member states to build interconnection capacity equal of 15% of their installed power generation capacity by 2023. As of last year, however, only 17 of 28 member countries were on track to meet their interconnector targets. Though hailed as more reliable and cheaper than a purely domestic electricity supply, relying on one's neighbours for green power is still a hard pill to swallow for some. ■

"Unsatisfactory" wind unit weighs on Siemens Energy's Q3 results

Siemens Energy today blamed headwinds at Gamesa Renewable Energy, the company's wind unit, for the 36.8% drop in third quarter earnings to €5.9 billion as well as lower profit expectations for fiscal 2021. Management now anticipates an adjusted EBITA margin of 2-3%, down from previously 3-5%.

Revenue of the overall company increased by 8.8% to €7.3 billion largely thanks to a turnaround in the gas turbine business, notably for hybrid and decentralised units. Driven by Gas and Power's sharp improvement, adjusted EBITA before special items for Siemens Energy was positive with €54 million and an overall profit margin of 0.7% – despite the loss-making wind unit.

Though the gas and power segment was said to be "fully on track", Siemens Gamesa in which Siemens Energy owns 67% was not.

"We are not satisfied with the performance of (Siemens Gamesa), which suffered a significant setback in the turnaround of the onshore business," chief executive Christian Bruch said. The Siemens Energy CEO indicated he is discussion with the Gamesa board about "remediation measures," with-

out specifying further. The wind unit last month issued a profit warning, citing high prices for raw materials as well as delays with the launch of an onshore turbine.

Looking ahead to the entire fiscal 2021, management upholds its outlook for a 3-8%

revenue growth for Siemens Energy. However, the poor performance of the Gamesa's onshore wind business in the third quarter and a significantly lower profit outlook, prompted management to nearly half its outlook for the EBITA margin. ■



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MW-class gas turbine that will be 100% fuelled by ammonia (NH₃), producing no emissions in the combustion process. The first NH₃-fired, carbon-free gas turbine will be based on the H-25 Series turbine, and is aimed to be ready for commercialization by 2025.

Integrating manufacturing bases

The corporate overhaul will see Mitsubishi Power's major bases within Japan, notably Takasago Works and Nagasaki Works to be

integrated into MHI's Takasago Machinery Works and Nagasaki Shipyard & Machinery Works. The bases in Hitachi City and Kure City will become MHI's Hitachi Works and Kure Works.

The brand name 'Mitsubishi Power' will continue to be upheld in overseas markets, even after the integration with MHI. Within Japan, Mitsubishi Power will continue to exist as a corporation and act as a contract agent for customers in Asia and the Middle East. ■

Gas to Power Journal

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High gas, coal and ETS prices propel up power price to €90/MWh

Prices European Electricity Exchange (EEX) have tripled to over €90/MWh since the end of Covid-related lockdowns, as the economic rebound pushed up prices for coal natural gas and carbon emissions. China's hunger for hard coal in turn drove up the price to €15/MWh in Europe, while gas prices at the TTF hub surpassed €36/MWh.

Between the end of 2020 and July, the weekly average wholesale electricity price has doubled, and with July's prices being the "highest since 2008," said the Institute of Energy Economics (EWI) at the University of Cologne.

TTF gas prices were higher in July than they have been for more than ten years, and EWI researchers see several reasons for this: "The gas storage facilities in Europe are hardly filled due to the cold winter. At the same time, demand has increased again, especially in China and other parts of Asia. In addition, outages and maintenance work on infrastructure have exacerbated the situation," explained Eren Çam.

Hard coal prices (ARA), meanwhile, reached €15/MWh in July, a level last seen in 2011, largely due to product outages in Europe and rising demand for hard coal from Chinese power producers and industry.

Merit order shifts in favour of lignite

Higher fuel costs as well as record emission prices at €57/t CO₂ increase the marginal cost of power generation and thus influence the merit-order, or the ranking of power

plant dispatch.

"Most lignite-fired power plants benefit from the increase in gas prices despite high CO₂ certificate prices and are ahead of gas-fired power plants with lower marginal costs again," analysts commented. Lignite power units moved up the merit order and are being dispatched before cleaner-burning gas power plants.

Coal and nuclear exit benefits renewables

Looking ahead, researchers pointed out the decommissioning of nuclear and coal-fired power plants in Germany will greatly influence the available generating capacity and hence the merit order. Much will depend on the marginal cost of new-built gas power stations, hybrid power units with energy storage and renewables energy sources.

Electricity prices may recede from current highs, but this largely depends on fuel prices as well as the speed and scope of wind and solar power build-out. Carbon prices in the European Emissions Trading Scheme (EU ETS) will continue to go up, not least due to the tightening of climate targets and thus the demand for CO₂ certificates. ■

NEWS NUDGES

Germany has 1 million e-cars

One million registered battery electric and plug-in hybrid vehicles are now driving on German roads, though the government reached its 2020 goal half a year later than planned. About 54% of the registered electric vehicles are battery-electric, 46% plug-in hybrids and the economic minister Peter Altmaier announced the transport sector would be "irreversibly converted to renewable energies."

Thermoelectrics enters fast track

Thermoelectrics cools, heats, makes electricity and sense. ID TechEx sees a real possibility of thermoelectric generators becoming viable in geothermal energy and other high-power applications. New research scrutinizes 90 companies involved, from patents to research papers, product offerings, and financials.

Tapping wind energy for hydrogen

Spanish utility Naturgy and the gas grid operator Enagás are evaluating the use of 350 MW offshore and on-shore wind capacity to produce green hydrogen. The fuel will be used to decarbonise the steel industry and shipyard in northwest Spain. ■

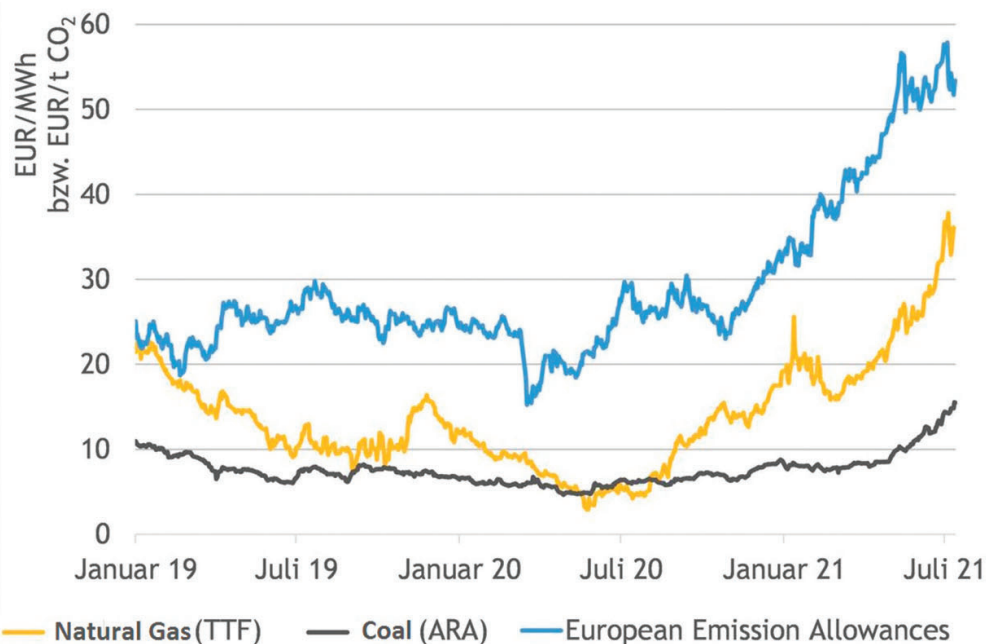


Figure 2: Fuel and emission allowance prices, 2019 – 2021 (Sources: Ember Carbon Price Viewer, EEX Transparency Platform, marketwatch.com (data up to and including 15.07.21))

Green hydrogen acts as energy storage but economics don't add up

Though green hydrogen, produced from variable wind and solar generation, can act as long-term energy storage – it is not economically viable yet. To get from 80,000 tonnes produced today to a required 35 million by 2035, governments will need to "heavily incentivise green hydrogen – and soon," analysts say, similar to past subsidies for renewables.

The use of low-carbon hydrogen can help decarbonise sectors where direct use of electricity is not an option, from shipping and aviation to industrial processes like steelmaking," commented Tom Heggarty from Wood Mackenzie's Power & Renewables research team.

Today, hydrogen is already used as a feedstock for refining and petrochemical production, but analysts reckon its importance needs to grow if Europe wants to achieve its Net Zero emission targets.

Tiny share of green vs. grey hydrogen

The lion's share of today's hydrogen (99.6%) still comes from hydrocarbons. According to Wood Mackenzie figures, around 71% is grey hydrogen, produced via the reforming of natural gas to produce CO₂ and hydrogen. Most of the remainder is brown hydrogen, derived from coal via gasification. Some grey is turned into blue hydrogen – a lower-carbon alternative – by pairing natural gas reforming with carbon capture and storage (CCS), though that is not widely commercial.

Just a tiny share of 0.1% in 2020 is actually green hydrogen, produced from water by renewables-powered electrolysis. Policy makers and environmentalists strive to boost this share, though analysts warned this

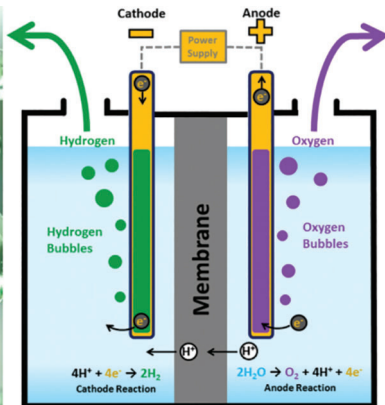
will not be feasible without subsidies and regulatory support.

Hype over hydrogen heating

The UK government has been funding initiatives to use hydrogen for heating commercial houses and private households. With over 85% of homes being connected to the gas grid in the UK, the easiest and simplest way to decarbonise is to convert the existing network and home products such as boilers, to hydrogen.

Future UK Government legislation will likely mandate that all new models of domestic boilers are 'hydrogen-ready' from 2025, but the Energy and Utilities Alliance (EUA) dismissed this move as "short sighted."

The use of heat pumps must be supported by a network carrying a decarbonised gas, such as hydrogen, which is Net Zero at the point of use and throughout its supply chain. But EUA analysts reckon that "levels of disruption to people in their homes and high upfront costs mean heat pumps are likely to be a solution for a minority of properties only."



Schlumberger develops lithium extraction pilot plant in Nevada

Schlumberger New Energy, the energy transition unit of the US oilfield service giant, is developing a lithium extraction pilot plant in response to growing demand for utility-scale battery storage in the transport and power sector. To be built through NeoLith Energy in Clayton Valley, Nevada, the pilot plant is due operational before the end of 2021.

The Neolith approach uses a new direct lithium extraction process to facilitate the production of high-purity, battery-grade lithium material. According to Schlumberger, the new process also reduces production time from more than a year to only weeks.

"Nevada's lithium resources present an excellent opportunity to demonstrate a leap in production efficiency," Ashok Belani, Schlumberger New Energy executive vice president, said noting the pilot plant will benefit from the company's expertise in the subsurface domain, development of process technology, and global deployment of technology at scale. As for the commercial aspect, Belani stressed: "We are accelerating the deployment of our pilot plant in response to the high market demand for battery-grade lithium material."

Deployment and start-up of the lithium extraction pilot plant is part of Schlumberger's agreement with Pure Energy

Minerals with Schlumberger to develop its Nevada lithium brine property, using a novel DLE process to brine and extract high-purity lithium.

Schlumberger New Energy has already spent over \$15 million in this direct lithium extraction (DLE) process, and expects the construction and operation of the pilot plant in Nevada will require "a similar amount of investment."

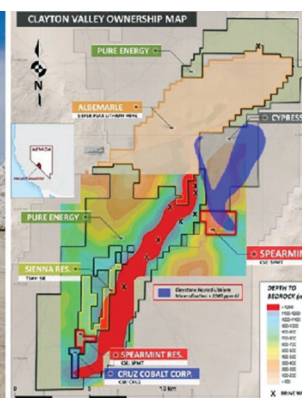


Demand for lithium surges

Lithium is a chemical element that is used in most utility-scale battery storage projects as well as for electric vehicles, hence various analysts forecast demand for the raw material will see double-digit growth over the next few years.

In fact, figures by the U.S. Energy Storage Association show that the capacity installed in 2020 "broke all records" by reaching 3,500

MWh. Energy storage, installed across the United States, grew nearly 200% and totaled an all-time operational record in fourth quarter. From that total, about 2,156 MWh of new energy storage was brought online in the last three months of 2020, according to the report.



Air Products to convert its trucks to run on hydrogen fuel cells

Industrial gas company Air Products will convert its global fleet of approximately 2,000 trucks to run on hydrogen fuel cells. Cummins will provide the electric power-trains, fuelled by hydrogen that will be integrated into the heavy-duty trucks in a pilot phase starting from 2022, in a bid to decarbonise the transport sector.

The two partners will also strive to make green hydrogen more accessible by setting up infrastructure that facilitates the use of hydrogen as a transport fuel, in addition to its growing adoption in the power sector.

"We believe hydrogen is the future for heavy duty segments of the transportation

market and we can demonstrate to the world its merits by being a first-mover in transitioning our heavy-duty fleet of trucks to hydrogen fuel cell electric vehicles. (...) Nothing says more about our company's approach to sustainability than a fleet of zero-emission vehicles on the road delivering product to customers every day," said

Air Products CEO Seifi Ghasemi.

On the commercial side, Air Products sees the semi-truck market is a major opportunity for hydrogen due to its rigorous requirements. "Only hydrogen fuel cell vehicles can provide the necessary range, refuelling time, and weight requirements to decarbonise the transportation sector," said Eric Guter, Air Products' vice president for hydrogen for mobility solutions.

Hydrogen fuel cells can cope with heavy-duty applications, both in transport and power generation, even in hot weather conditions. Air Products owns and operates some large hydrogen production, gasification, carbon capture, transportation and fuelling projects.

Cummins offers a wide range of hydrogen technologies and has, to date, deployed more than 2,000 fuel cells and 600 electrolyzers globally. The company has helped power the world's first hydrogen fuel cell passenger trains, the world's first hydrogen refuelling station for ships, cars and trucks in Antwerp, Belgium and the world's largest PEM electrolyser in Bécancour, Canada. ■



Air Products truck running on hydrogen

Johnson Matthey develops fuel cell with 20% higher power density

Johnson Matthey, part of the European GAIA consortium, has helped develop a hydrogen fuel cell with a power density of 1.8 W/cm² @ 0.6V. That's a 20% rise compared with current technology. Working alongside BMW, Freudenberg, 3M and three others, Johnson Matthey supplied critical components within the fuel cell stack – the membrane electrode assemblies.

The increased power density will lower overall stack cost, in turn helping to advance the commercialisation of fuel cell powered vehicles. This helps decarbonise the transport sector, notably passenger cars, as well as HGVs and trucks.

A large-scale rollout of the novel hydrogen fuel cell would help meet the EU's Fit for 55 proposal to reduce CO₂ emissions in the EU by 55% by 2030, as well as the UK's Decarbonising Transport roadmap which proposes to phase out polluting vehicles weighing between 3.5 tonnes and 26 tonnes from 2035.

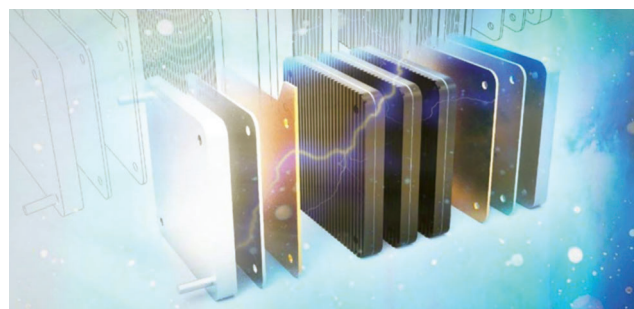
The GAIA project, which started in January 2019 and will run for 3.5 years, aims to develop and integrate proton exchange membrane (PEM) components into a fuel cell with a view to meeting critical performance, cost and durability targets of the automotive industry.

Strong first quarter

The year started well for Johnson Matthey which delivered a 63% growth in sales in the first quarter, primarily driven by increased demand in Clean Air and also Efficient Natural Resources. "Sales have returned to pre-pandemic levels, and operating profit is ahead driven by more volatile and higher average precious metal prices," the British company told analysts this week in its Annual General Meeting.

The world's adoption of hydrogen as an energy vector is accelerating, and Johnson Matthey sees rapid growth in this business segment. It just agreed to supply membrane electrode assemblies (MEAs), mainly for commercial vehicles, with Unilira/REFIRE.

In green hydrogen production, testing



with customers is "proceeding well" with first commercial sales from this business expected in 2022. The recent acquisition of assets from Oxis Energy will allow Johnson to expand manufacturing in the UK which is hoped to provide hundreds of MW of additional capacity from the beginning of 2022.

In Battery Materials, commercialisation of eLNO high nickel cathode materials "continues at pace," Johnson Matthey said, stressing construction of the first commercial plant "remains on track." ■

Marubeni scrutinizes costs of importing hydrogen to Kansai, Japan

Japanese engineering giant Marubeni, together with Iwatani and Deloitte Tohmatsu, are studying the feasibility of setting up a hydrogen supply chain in Kobe city and the wider Kansai region. Use of low-cost imported hydrogen for power generation and transport is essential if Japan's wants to achieve its aim of a carbon-free society by 2030.

The 'Kobe/Kansai Hydrogen Utilization Council' was launched to develop new utilization methods and establish a regional hydrogen supply chain. Marubeni, Iwatani and Deloitte serve as the council's secretariat, looking into suitable coastal areas where hydrogen import facilities could be built.

The latest study assesses the feasibility

and costs of hydrogen supplies from unloading and storage at the receiving terminal, to transport – either via pipeline or lorry – from the receiving terminal to an area of demand within Japan. Nippon Steel P&E will look into adapting Japan's municipal gas pipeline network to transporting a mix of hydrogen and natural gas.

Low-cost hydrogen imports from Aus-

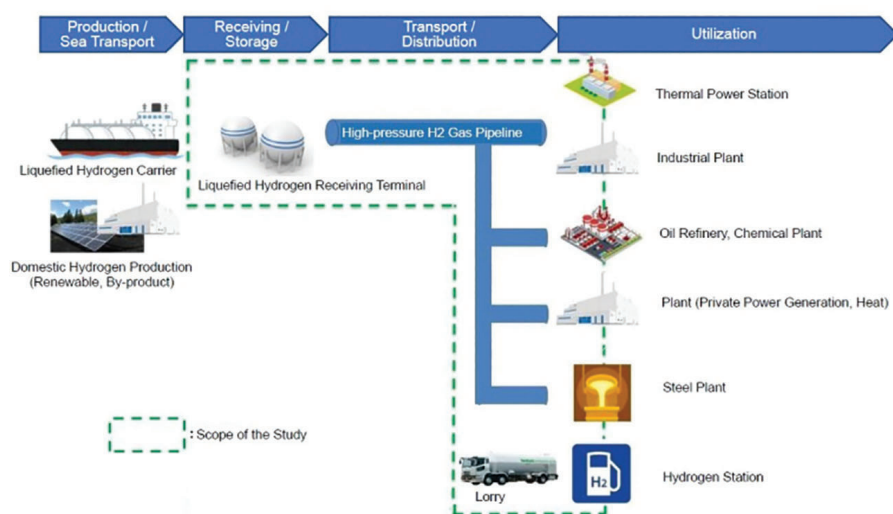
tralia and Brunei will complement Japan's comparatively low volumes of domestically produced hydrogen from renewable energy sources as well as by-product hydrogen, derived from industrial processes.

Hydrogen plants in South Australia become profitable

South Australia has the wind and sunshine to evolve into a prime hydrogen supplier, especially for Japan. Cornwall Insight says a hydrogen plant could make a profit of \$2.3 million this summer, assuming 20% utilisation and quarterly repayment on the \$593 million government debt with interest, operating and fuel costs.

"If the plant was available in summer 2020, it could have made around \$47 million in profit – a stark difference compared with a \$2.3 million loss in the first quarter of 2019," said Benjamin Macey, senior storage consultant at Cornwall Insight Australia. For the modelling, Cornwall Insight assumed the hydrogen will be sold at \$2/kg which aligns with the Australian Government Technology Investment Road Map goal of enabling clean hydrogen under \$2 per kilogram. ■

Future Image of Hydrogen Supply Model in Coastal Area in Kansai Region



MAN and ANDRITZ to produce hydrogen from hydro power

MAN Energy Solutions and ANDRITZ Hydro have agreed to develop green hydrogen from hydropower, starting with a pilot project in Europe that will produce 650 tons of hydrogen from 4 MW electrolysis output before year-end. In future export-orientated projects, the electrolysis output will be raised to 100 MW in the coming years.

Most projects will be implemented internationally in the context of the German government's H2 Global initiative, a market-based funding platform set up to promote the launch of electrolyzers and hydrogen-based power-to-X products. For this purpose, energy partnerships are meant to be fostered in countries with a high renewable energy potential to cost-effectively produce hydrogen for export to Germany and the EU.

Using baseload power for hydrogen

"Hydropower is one of the few completely climate-neutral forms of energy, which is capable of providing baseload power. We therefore see excellent potential for worldwide expansion – in new construction projects just as much as in repowering," said Frank Mette, CEO of ANDRITZ Hydro in Germany. ANDRITZ Group supplies elec-

tromechanical equipment and services for hydropower plants and has installed fleet of more than 470 GW output.

By adding the option to produce hydrogen to hydropower plants, the baseload electricity generated will be "ready for export and storage [in the form of hydrogen] without restriction," he explained. For operators of hydro power stations, the retrofit with an electrolyser opens up new export markets and new revenue streams.

Projects based on PEM electrolyzers

To reach their Net Zero carbon objectives, many European countries need huge quantities of green hydrogen. "Hydropower plants are ideal for generating hydrogen in a completely climate-neutral, reliable and cost-effective manner," said Dr. Uwe Lauber, CEO and Chief Technology Officer of MAN Energy Solutions.

MAN Energy solutions will contribute



Frank Mette, CEO of ANDRITZ Hydro in Germany, and Dr. Uwe Lauber, of MAN Energy Solutions, signed the agreement in Ravensburg.

scalable electrolyzers to the partnership, along with years of experience in power-to-X technology and plant engineering. The Augsburg-based manufacturer offers electrolyzers based on the polymer-electrolyte membrane process (PEM).

In Bavaria and Schleswig-Holstein, stacks and megawatt PEM electrolyzers are developed by around 85 specialists of H-TEC SYSTEMS to cover the hydrogen demand for industry as well as for energy refiners. ■

Ansaldo fast-tracks EPC for Irsching 6 balancing power plant

German utility Uniper has thanked Ansaldo Energia when laying the foundation for the 300 MW Irsching 6 balancing plant in Bavaria. The open-cycle power plant, driven by an AE94.3A gas turbine, is being built on a turnkey basis and is due completed and commissioned by September 2022.

The AE94.3A turbine has already been delivered to the site, and it will be soon installed on the foundations for Irsching 6. Claudio Nucci, Ansaldo Energia's Chief Operating Officer pointed out: "Our turbine is able to enter into service quickly in an effective way to avoid blackouts in case of instabilities to the power grid, ensuring its operational continuity."

Quick start, fast load ramp

AE94.3A is a quick start gas turbine that can reach baseload condition in less than 25 minutes via a fast load ramp, making it suitable for grid balancing in the face of rising intermittent supply from wind and solar power sources. Apart from the turbine, the Italian OEM also supplied the generator and auxiliary systems.

The EPC contract for Irsching 6 is part of a wider network reserve project by the TSO

Tennet which includes tenders in four areas of southern Germany. Uniper had been awarded a contract from TenneT in January 2019 to build and operate a reserve plant capable of timely supplying energy in case of emergency.

Irsching 6 is one of two turnkey projects that Ansaldo is currently building in Germany, next to Marbach 4 another emergency power plant which is built on behalf of the regional utility Energie Baden-Württemberg (EnBW).



More than 3,000 HHE-class compressors are in operation worldwide today.

Wärtsilä 34DF engines will power Nigeria's largest food company

Finish technology group Wärtsilä will supply dual-fuel engines to extend and modernise a captive power plant at Nigeria's oldest and largest food and agro allied company, Flour Mills Nigeria. The Lagos-based plant needs reliable electricity supply 24/7 and the new engines are scheduled to start full operations in early 2022.

Under the first of two orders, Wärtsilä will install a 9-cylinder 34DF dual-fuel engine genset that extends the existing capacity or a similar engine that has been operating since 2017. The second order comprises a 12-cylinder 34DF engine genset that will replace an inefficient mono-fuel generating asset.

The switch to dual-fuel engines is part of Flour Mills Nigeria's power plant modernisation. The Wärtsilä gensets will be delivered in the autumn and are due fully operational early next year.

Fuel switching at full load

Multi-fuel engines can switch from natural gas to liquid fuel mode while running at full load, which facilitates continuous electricity supply even if gas supply is interrupted. Fuel switching also gives the plant operator a valuable hedge against fuel price increases.

Operational flexibility and efficiency, which are features of the Wärtsilä engines, are becoming key issues in energy production, and are especially relevant for production facilities with a

critical need for a reliable electricity supply," Marc Thiriet, Energy Business Director, Africa West, Wärtsilä commented on the repeat order from Flour Mills Nigeria.

The Nigerian government envisages for the power sector to achieve a capacity of 30,000 MW of electricity by the year 2030, with at least 30% supplied from renewables. By selecting fast-start Wärtsilä engines, the customer use excess supply to can provide smart back-up generation to help balance the grid.

In West Africa, Wärtsilä has 4,792 MW of capacity installed, of which 667 MW is situ-

ated in Nigeria. The Finish manufacturer has operated in the country since 2010 and has about 90 employees locally.



Wärtsilä 34DF engines will power Flour Mills Nigeria

NEWS NUDGES

Bloom SOFCs to power micro plant in South Korea

California-based Bloom Energy, in cooperation with SK ecoplant, will install solid oxide fuel cells (SOFCs) in a combined heat and power (CHP) plant in Donghae City, South Korea. The CHP will provide heat and warm water for the nearby Bukpyung sports center. Construction on the project is slated to start this autumn.

Howden powers methanol plant

Howden will deliver a hydrogen compressor to Johnson Matthey to serve the world's first methanol plant that harnesses energy from the wind, in Patagonia, Chile. The Haru Oni project will deliver around 900,000 litres per year of e-methanol as early as 2022 and will be scaled up to 550 million litres of e-fuels per year by 2026.



Atlas Copco

"Our Atlas Copco fuel gas boosters provide us with the reliability and peace of mind we need to keep our power plant running."

Ciector Whitelock
Maintenance Manager
Astoria Energy, New York City

For more than 25 years, Atlas Copco Gas and Process has helped plant operators around the world handle the pressures that come with running their power generation facilities. Our standard and customized compressor solutions cover the entire range of Fuel Gas Boosting applications and readily adapt to the changing conditions in your plant.

Our experts will partner with you from day one to develop a solution to help you save OPEX while reducing your environmental impact, and our worldwide Aftermarket services team is here 24/7 to continue to help reduce your downtime.

Learn more about how our range of Fuel Gas Boosting solutions can help your plant at www.atlascopco.com/powergen