



Japan's policy to close less-efficient coal plants creates upside for LNG

Coal is no longer a favourite fuel in Japan's new energy policy which stipulates to mothball or retire up to 100 inefficient coal-fired power plants by 2030. Analysts say this will shift Japan's energy mix towards nuclear and gas, creating upside for LNG imports.

However, rather than phasing out all of Japan's pre-1995 coal-fired fleet, market observers say it is more likely that all lower efficiency plants could be targeted. Low-efficiency coal power plants are defined as requiring more than 8,600 Btu of fuel per kWh of electricity output.

"Lost" coal capacity could reach 160 TWh

If all these units will be closed, Japan would lose an estimated 24 GW of thermal generating capacity which represents about 51% of the country's currently operating fleet of coal power plants. This is a significant proportion of the current mix, representing

about 51% of Japan's operational coal-fired plants.

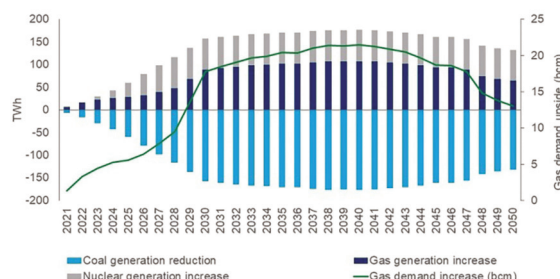
Assuming that a gradual phasing out takes place over the next decade, then Japan's power mix has "little option but to become more reliant on nuclear and imported LNG," says Wood Mackenzie Asia Pacific vice-chair, Gavin Thompson.

In his view, 'lost' coal generation could reach around 160 TWh by 2030.

continued on page 2



Potential impact on Japan's generation mix and gas demand



New U.S. sanctions won't stop Nord Stream-2 following Danish permit

Denmark's decision to allow Gazprom to build Nord Stream-2's final stretch with Russian pipe-laying vessels means the controversial interconnector will become a reality. Fresh U.S. sanctions "cannot stop the project now" analyst say, as the permit makes works "cheaper and easier" for Gazprom.

The completion of Nord Stream-2 will almost double Gazprom's existing export capacity. Currently, 55 billion cubic meters per year are being transported through the original Nord Stream-1 pipeline, running from Vyborg in Russia to Greifswald in eastern Germany. Start-up of the second pipeline leg will increase the overall transport capacity to nearly 99 bcm per year.

Construction of the 1,230-kilometre pipeline is nearly complete, except for a final stretch of about 120-kilometers in Danish waters. The project was halted in December when the Swiss-Dutch pipe-laying company Allseas suspended works over threats of U.S. sanctions.

Gazprom's 'Akademik Cherskiy' vessel will lay the final pipeline stretch

The Russian pipe-laying vessel Akademik Cherskiy,



designated to build the final stretch of the pipeline is already in nearby waters in the Baltic Sea. The vessel is currently owned by the Samara Thermal Energy Property Fund (STIF), operated as part of the Gazprom Fleet.

Though Gazprom is included in some less stringent sanctions, analysts expect this will not hamper the Russian state gas exporter to forge ahead

continued on page 2

AGENDA

COMPANIES

Woodside takes A\$6.3 billion hit as sales revenue plunges **2**

PRICING

Henry Hub gas prices plunge to record low in June **3**

HYDROGEN

Shell's REFHYNE project gets boosted by EU's new hydrogen strategy **4**

TECHNOLOGIES

FuelTech wins \$2.2 million in equipment orders in Europe and the U.S. **5**

SUPPLY

U.S. rig count falls as demand for gas stays low at home and abroad **6**

PROJECTS

Shanghai Electric/Ansaldo consortium to build CCGT in Bangladesh **7**

Continued from page 1, top story

Gas, nuclear generation to fill the capacity gap

In this case, the contribution of nuclear power would have to be increased but gas-fired generation is likely to fill make up for most of the lost capacity. By 2030, up to an additional 13 million tons (Mt) of LNG could be required to help fill the gap.

"Any issue with nuclear restarts – an obvious risk – and LNG demand could be higher still. This will inevitably increase generation costs," Thompson cautioned.

Japan is also expected to build over

50 GW of renewables capacity out to 2030, including a major increase in offshore wind, though high costs of that technology in Japan make it rather challenging.

'Clean coal' IGCC plants are gaining ground

Some of the shuttered ageing coal-fired capacity might also be replaced with clean coal power units. Around 6.1 GW of ultra-supercritical and integrated gasification combined cycle coal plants (IGCC) are currently under

construction in Japan.

Others have been proposed, and Wood Mackenzie pointed out that given their higher operational efficiencies, adding a significant volume of newer IGCC units to replace less efficient plants would "clearly support a continued role for coal in Japan's power mix."

In the long run, this would also allow the government to keep up its existing 2030 clean energy targets to reduce the share of unabated coal in the energy mix to around 25 percent. ■

Woodside takes A\$6.3 billion hit as sales revenue plunges

Australia's Woodside Petroleum has announced write-downs of nearly A\$6.3 billion (US\$3.92bn), mostly related to its exploration assets. Australia's largest oil and LNG exporter today posted a US\$768 million drop in Q2 sales, largely due to a 28.2 percent fall in its realised LNG price.

Like most of its industry peers, Woodside has been struggling with low realised prices for its oil and LNG exports following a coronavirus-induced slump in demand. BP, Royal Dutch Shell and Eni have already announced similar write-downs and impairments on their assets.

Woodside Petroleum reported a 29 percent drop in revenue for the three months

ended June 30, with sales for the period fell to US\$768 million, from US\$1.08 billion in the previous quarter.

Slump in realised LNG and oil prices

Badly hit by an oil and gas price slump, Woodside said its realised LNG prices in the quarter came to US\$5.00 per MMBtu compared with US\$8.10 MMBtu in the first quarter of 2020 and US\$7.10 per MMBtu in the year-ago quarter.

Realised oil prices came to US\$31 per barrel compared with US\$52 per barrel in the first quarter and US\$69 per barrel in the 2019 second quarter.

Australia's largest oil and gas

exporter had taken a risk by making a US\$447 million provision for a LNG offtake agreement from Cheniere Energy's Corpus Christi liquefaction plant in Texas, at a time when several Asian and European buyers have started to cancel cargo as the Covid-19 crisis unfolded.

FIDs delayed

Fitch Ratings affirmed Woodside Petroleum long-term Foreign-Currency Issuer Default Rating at 'BBB+' with a Stable Outlook. The agency said the rating "reflects Woodside's strong balance sheet and limited leverage" as well as the company's decision to reduce expenditure and delaying final investment decisions (FID) on its major expansion projects. ■



Continued from page 1

with a project as strategic as Nord Stream-2. Apart from Gazprom, Nord Stream's lead developer, the European utilities Uniper,

Winterhall, Engie, OMW and Shell are also invested in the project.

U.S. Congress mulls fresh sanctions

Determined to stop the completion of the controversial Russian-German gas interconnector, the U.S. Congress had threatened to levy sanctions against construction and pipe-laying companies involved in the project. Allseas, a Swiss pipelay firm, consequently suspended works.

"Denmark's decision makes it definitely much easier and cheaper for Russia to complete Nord Stream 2," said Anna Mikulska from Rice University in Texas. "Now the question is whether the already existing US sanctions would then apply to Gazprom." In her view, further U.S. sanctions would harm the country's relations with its European allies. Germany quietly disagrees with the US

sanctions package, in particular after German policy makers worked hard behind the scenes to secure Russian gas transits through Ukraine.

"There is bipartisan U.S. support to stop the pipeline and some very harsh anti-Germany rhetoric from Trump," commented Kirsten Westphal, energy expert at the German Institute for International and Security Affairs. Political posturing from the President Trump, seen as barely disguised support for US LNG sales into north-eastern Europe, is coming at an inopportune time.

Industry stakeholders and the wider German public increasingly take the view that further U.S. sanctions against Gazprom would have a serious impact on the European economy. Berlin would rather have global leaders work together to rekindle national economies in the aftermath of the coronavirus crisis. ■

Gas to Power Journal

Publisher
Stuart Fryer

Editor
Anja Karl
Tel: +44 (0)7733 684 682
anja@gastopowerjournal.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
Tel: +44 (0) 208 995 5540
chee@btconnect.com

Henry Hub gas prices plunge to record low in June

Monthly gas prices at the U.S. Henry Hub have fallen to a low of \$1.63 million per British thermal units (MMBtu) in June – the lowest inflation-adjusted price since at least 1989, according to government data. Starting from March, mild weather and Covid-19 related lockdowns depressed both demand and prices.

In the first half of 2020, the average Henry Hub spot price plunged to record lows of around \$1.81 per MMBtu.

Dire demand outlook

U.S. gas storage levels are already higher than average for this time of the year, as low gas prices globally have led to a decline in LNG exports. Demand for US LNG has fallen by half in the first half of 2020, from 9.8 billion cubic feet per day (Bcf/d) in late March to less than 4.0 Bcf/d in June. Industrial gas demand in the United States, meanwhile, is down by 0.6 Bcf/d, or 2.7%, compared with the first half of 2019.

Health experts are warning of the effects of a second wave of coronavirus infections in the autumn which may make it necessary to re-instate lockdowns with dismal effects on the economy and energy prices.

Prices set to stay low

The U.S. Energy Information Administration (EIA) expects natural gas prices to stay low in the coming months before eventually increasing by the end of 2020. In its July 2020 Short-Term Energy Outlook (STEO), the EIA forecasts that Henry Hub natural gas spot price for the second half of this year will average \$2.05 per MMBtu.

By the onset of autumn, EIA expects low prices to lead to further declines in natural gas production as a result of lags between natural gas price changes and adjustments to production levels. Analysts expect U.S. dry gas production will decrease by 3% to average 89.2 Bcf/d in 2020, down from 92.2 Bcf/d in 2019.

Gas-burn rises

The low US gas price has been driving a rise in gas-burn in the electric power sector, which is already 7% higher in the H1-2020 compared with last year. The EIA expects consumption in all other sectors to decline and that overall 2020 natural gas consumption will decline by 3 Bcf/d.

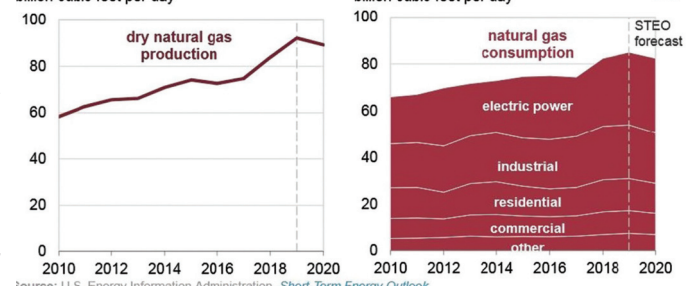
Prices at key trading hubs across the country have generally traded close to the Henry Hub basis, and they are largely driven by regional temperatures. Except for California, prices at all

major trading hubs in population centers averaged less than \$2 per MMBtu in the first half of 2020.

Prices at PG& Citygate in Northern California and SoCal Citygate in Southern California averaged \$2.57 per MMBtu and \$2.35 per MMBtu, respectively. Looking ahead, the EIA expects gas spot prices to rise by Q4-2020 as production falls and the winter heating season begins.



Annual U.S. natural gas production and consumption by sector (2010–2020)
billion cubic feet per day



German Energy Agency advised to reduce EEG levy to zero by 2021

German Energy Agency dena has advised the Government to support households by lowering the renewable surcharge they pay with their power bills, also known as the EEG levy, to zero by 2021. The resulting lower electricity prices would help stimulate private consumption.

The idea, set out in a position paper by dena with the Institute for Public Economics at the University of Cologne (FiFo), build on the Government's earlier announcement to cap the renewables levy to 6.5 ct/kWh in 2021, and further to 6 ct/kWh in 2022.

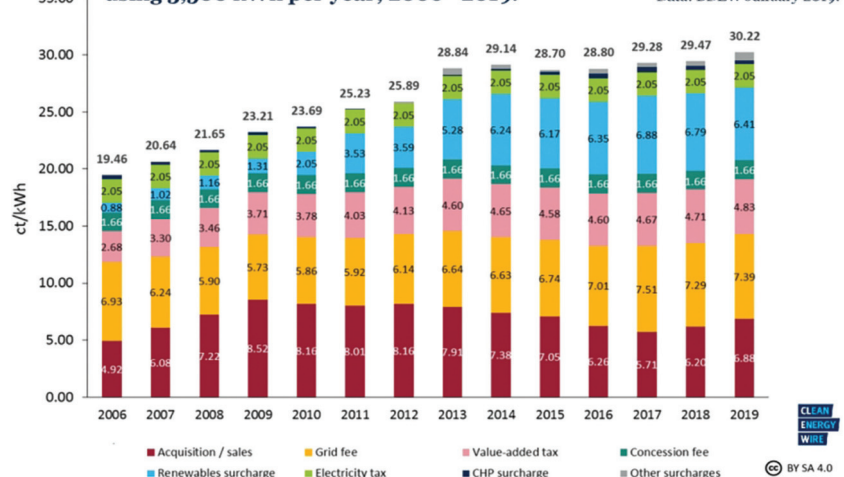
This measure would be worth 11 billion Euros and would be part of Germany's wider 130 billion Euro coronavirus stimulus package.

A slower reduction of the EEG levy down to zero in the years until 2030, combined with a rise of the electricity tax to 4.1 cent, would lead to an overall power price reduction of 4.5 ct/kWh.

"Only this fundamental restructuring of the renewables levy and the electricity tax will make it possible to achieve considerable simplifications in energy law, relieve companies and authorities of the burden of en-

Composition of average power price in ct/kWh for a German household using 3,500 kWh per year, 2006 - 2019.

Data: BDEW January 2019.



forcement and processing and thus achieve further economic benefits," economist at dena and FiFo conclude.

The German end-customer power price is

subject to taxes and levies that make electricity expensive, compared to prices other European countries, despite a steady decline in wholesale power prices over recent years.

Shell's REFHYNE project gets boosted by the European Union's new hydrogen strategy

Shell says its REFHYNE hydrogen electrolyser project, based on proton exchange membrane (PEM) technology, will be supported by the European Commission's new hydrogen strategy. The policy sets out pathways how clean hydrogen can help the EU reach its 2050 net-zero emissions target.

Large-scale deployment of clean hydrogen at a fast pace is vital if the EU wants to succeed in reducing emissions by 50-55% by 2030, in a cost-effective way. The Commission's new hydrogen strategy, unveiled on Wednesday, focuses on green hydrogen derived from wind and solar power.

Aiming for 6 GW clean hydrogen by 2024

In the first phase (2020-24), the plan is to decarbonise existing hydrogen production, e.g. in the chemical sector, and promote it for new application. The aim is to install at least 6 Gigawatt (GW) of renewable hydrogen electrolyzers in the EU by 2024, compared to approximately 1 GW of electrolyzers installed today.

Starting from 2024, hydrogen is meant to become an "intrinsic part" of an integrated energy system based on the addition of at least 40 GW of renewable hydrogen electrolyzers by 2030, capable to produce up to ten million tonnes of renewable hydrogen in the EU.

Shell forges ahead with the REFHYNE project

Shell sees potential in hydrogen. "We know the enormous contribution it can make to decarbonising hard-to-abate sectors, such as heavy-duty transport and industry," said Elisabeth Brinton, executive Vice President,

New Energies at Shell. "That is why we are working to develop hydrogen as a storage vector for renewables and as a net-zero energy carrier for commercial and industrial customers. We are also exploring ways of delivering green hydrogen produced from offshore wind," she explained.

The REFHYNE project at the Shell Rhineland refinery in Wesseling, near Cologne in Germany, is designed to become the world's largest hydrogen electrolyser. The plant, funded by the European Commission's Fuel Cells and Hydrogen Joint Undertaking (FCH JU), will be jointly operated by Shell and manufactured by ITM Power.

Once operational, ITM Power's 10MW PEM (proton exchange membrane) electrolyser will produce around 1300 tonnes of green hydrogen per year. This decarbonised hydrogen can be fully integrated into refinery processes, e.g. for desulphurisation of conventional fuels.

Works at the REFHYNE project began in January 2018, and the project is designed to run for 5 years to December 2022. Start of commercial operations is targeted for early 2021.

North2 project to harvest wind energy

Shell is also involved in other European hydrogen projects, notably a large electrolyser in Rotterdam, Netherlands, which aims to transform offshore wind energy into green

hydrogen for use as a transport fuel.

The Anglo-Dutch oil major company is part of a consortium aiming to build the largest European green hydrogen project in the Netherlands by 2040.

This project is still subject to a feasibility study, but if given the go-ahead, North2 will be capable of producing 800,000 tonnes of green hydrogen by electricity generated from an offshore wind farm in the North Sea. ■

NEWS NUDGES

Siemens and GREEN Solar turn German town CO2-free

GREEN Solar and Siemens Energy are jointly developing a concept for making Herzogenrath CO2-free. The plan is to provide an energy-efficient and economical combination of solar power plants, wind turbines, batteries, CHP and combined cycle power plants, as well as heat and hydrogen storage. The hybrid system will be built on the grounds of Nivelsteiner Sandwerke and will be large enough to cover the city's entire energy demand with zero CO2 emissions by 2030.

MAN ventures into synthetic fuels

MAN Energy Solutions has entered the hydrogen economy with the recent pro rata acquisition of H-TEC SYSTEMS, an electrolysis tech firm. The German OEM also committed itself to upgrading its gas turbines to run on 100% hydrogen by 2030.

NPROXX, Cummins to develop hydrogen storage tanks

On-site power provider Cummins has entered a joint venture with the German startup NPROXX, focussed on hydrogen storage tanks and transportation. The JV is aimed at deepening Cummins' capabilities in fuel cell and hydrogen production technologies.

Both parties will own 50 percent of the new joint venture, whose formation is expected to close by the end of the first quarter of 2021. The unconsolidated joint venture results will be included as part of Cummins' New Power business segment. ■



View of the REFHYNE project at Wesseling, Germany.

FuelTech wins \$2.2 million in equipment orders in Europe and the U.S.

Engineering solution provider FuelTech has been awarded several equipment orders worth \$2.2 million. In Europe, two order wins stipulate the use of NOxOUT Selective Non-Catalytic Reduction (SNCR) systems for single combustion units, firing natural gas and biomass. SNCR technology helps plant operators to comply with more stringent NOx emission rules.

Deliveries for the above orders are due completed by Q3-2020. In Europe, another order came in for a NOx reduction system at a biomass-fired industrial unit which will utilize Fuel Tech's SCR technology and an aqueous ammonia feed system. Equipment

deliveries are scheduled for Q4-2020.

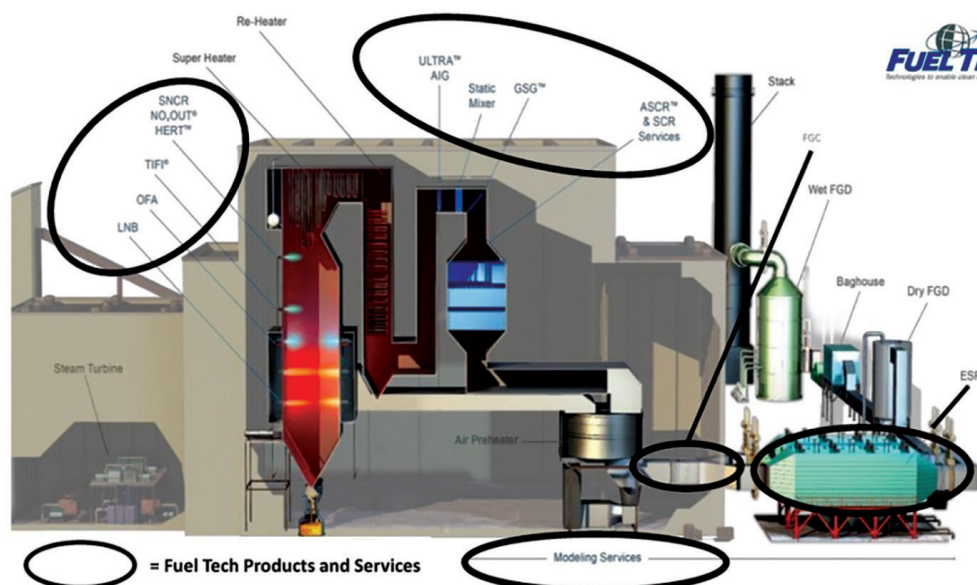
In the United States, FuelTech was contracted to retrofit a primarily coal-fired power plant with FUEL CHEM TIFI Targeted In-Furnace Injection technology. The equipment will be installed at three coal-fired units and will help the operator to burn

lower-quality fuels more cleanly and efficiently. Delivery and in-service date of the equipment is in Q3-2020.

"These units are not base-loaded units," the operator pointed out, explaining the revenue potential of the Targeted In-Furnace Injection (TIFI) program chemical sales will largely come from balancing variable power demand and flexible unit dispatch.

Fuel Tech's nitrogen oxide (NOx) reduction and particulate control solution have been installed on over 1,200 utility, industrial and municipal units worldwide. The company's FUEL CHEM technology improves the fuel flexibility, boiler heat rate, and environmental status of combustion units by controlling slagging, fouling, corrosion and opacity.

Vincent J. Arnone, President and CEO said Fuel Tech's broad portfolio of emissions control solutions would help customers "address their emissions control requirements regardless of fuel source."



Gas turbine market to grow by \$2.44bn through 2024, Technavio finds

The global gas turbine market will grow by \$2.44 billion, or 2%, over the next four years, according to Technavio research. The market is fragmented and sales badly hit by the coronavirus crisis, but analysts say the degree of fragmentation will accelerate in the years through to 2024.

Though the pandemic has sharply reduced growth in most industries, some energy sub-sectors like decentralized power, flexible and smaller-scale gas turbines and power storage prove to be less affected.

"Enhanced efficiency and robustness of gas turbines have been instrumental in driving the growth of the market," Technavio's latest custom research report reads.

Ansaldo Energia, Bharat Heavy Electricals, Capstone Turbine, Caterpillar, General Electric, IHI Corp, Kawasaki Heavy Industries, Mitsubishi Heavy Industries, OPRA Turbines, and Siemens are singled out as main market participants. Technavio's latest industry research looks at these companies' sales,

revenues, technological innovations and growth prospects.

Siemens Energy turns is back on coal

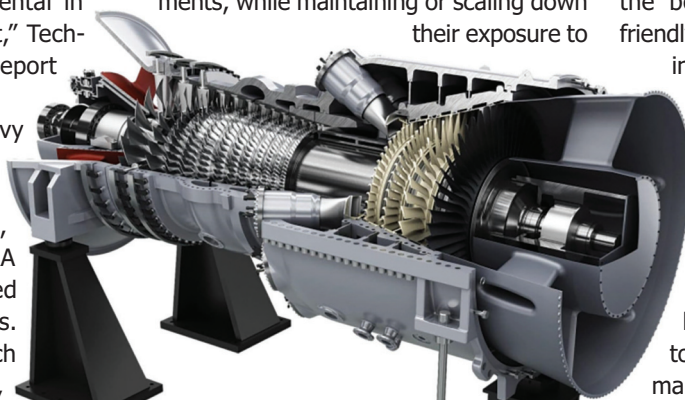
Market vendors are advised to focus more on the growth prospects in the fast-growing segments, while maintaining or scaling down their exposure to

slow-growing segments like fossil fuels.

Newly-formed Siemens Energy, to be listed at the German stock exchange on September 28, just committed to phasing out any operations and technology to related to coal-fired power generation. Siemens CEO Joe Kaeser said he had asked the board will draw up a "stakeholder-friendly" plan for the phase-out, without giving a specific timeline. Siemens Group

had been harshly criticised earlier this year for participating in the Adani coal mine project in Australia.

Sources close to the supervisory board warned in April that profits in the power plant division, which were already small before the pandemic, have now collapsed which threatens to undermine Siemens Energy's "stock market story."



Outlook for gas and renewables stays bright APAC despite pandemic

The pandemic is expected to have only a modest impact on the pace of renewables additions in Asia Pacific (APAC) countries, backed up by gas power and energy storage. The region is electrifying had been seen to account for 67% of global power demand growth through 2040.

Cash, investors' confidence and supportive governments are the key factors for the rapid growth of green energy projects. Banks have given renewables projects preferential financing terms, such as low interest rates and long pay-back periods.

Falling generation costs

Operation costs of new solar and wind plants across Asia Pacific have fallen by 54% and 29%, respectively, over the past five years. This took average costs for new projects below those of gas-fired power by 2018, though in most places renewables are still around 30% higher than coal.

In China, subsidies and preferential dispatch policies have helped new wind and solar projects gain a competitive edge over fossil power plants. However, as the scale of renewable investments increase, many Asian governments are now reducing or cancelling these subsidies, and feed-in tariffs - similar to how green energy markets evolved in Europe.

Sharp and short recession

Gauging the impact of the coronavirus pandemic on energy investment across Asia Pacific, Wood Mackenzie current base case sees a "sharp but relatively short world recession" though there's clearly risk to the downside.

In the consultancy's base case, we now expect APAC power demand to grow by 0.3% this year, resulting in the loss of 380 TWh of demand. But this is followed by strong recovery in 2021 and growth averages 3.6% over the next five years, in line with our pre-pandemic outlook. ■

U.S. rig count falls as demand for gas stays low at home and abroad

Though U.S. rig counts decline and dry gas production fell by 0.3% in recent weeks, overall gas supply is up 0.6%, largely due to rising output at Marcellus Shale. Gas-burn in the power sector is the only let-out for excess supplies, with rock-bottom prices accelerating coal-to-gas switching.

The discount of gas prices in the Permian Basin to the U.S. bellwether Henry Hub is narrowing, according to the U.S. Energy Information Administration (EIA).

Rig counts fall, though at a slow rate. According to Baker Hughes, the natural gas rig count decreased by 3 to 75 for the final week in June, while the number of oil-directed rigs fell by 10 to 189. The total rig count decreased by 13, and it now stands at 266.

The price at the Waha Hub in West Texas, situated near major Permian Basin production activities, averaged a low of \$1.27/MMBtu last Wednesday – 21¢/MMBtu lower than the Henry Hub price. In early July, the Waha Hub gas price traded slightly higher at \$1.45/MMBtu – some 13¢/MMBtu lower than the Henry Hub price.

Gas-burn up by a quarter

With gas storages fast approaching their filling points and comparatively low feedgas demand for LNG exports, the power generation sector is left as the largest end-user. Before the coronavirus crisis, U.S. gas consumption was nearly evenly split among the

electric power sector (36% of total consumption in 2019); the industrial sector (33%); and the residential, commercial, and transportation sectors (31% combined).

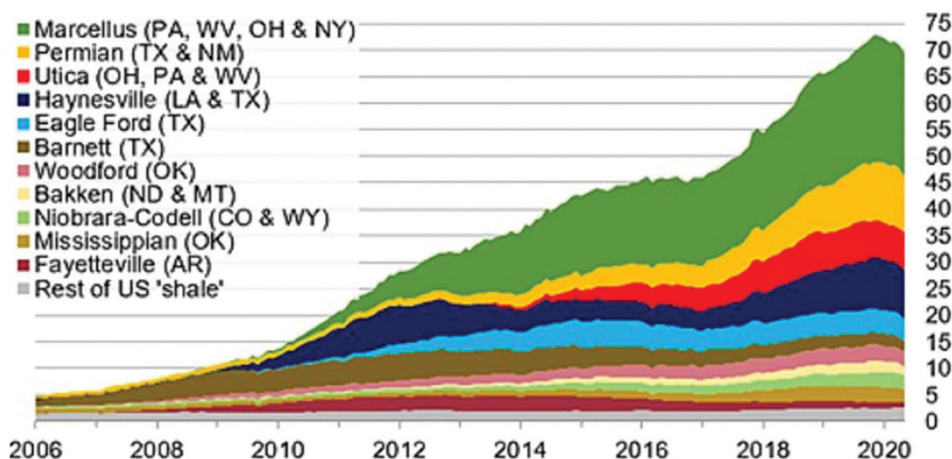
Now, industrial gas use is in the doldrums while gas-burn in the power sector surged by 20.5% week-on-week, according to IHS Markit data, as temperatures increase following last week's mild weather. Industrial sector consumption fell 1.0% week-on-week, while residential consumption fell 0.1% over the same period.

On a bullish note, analysts pointed out that feedgas to liquefied natural gas (LNG) terminals since Wednesday, July 8, increased 0.6 billion cubic feet per day (Bcf/d), or 18%, compared to last Wednesday, giving lift to prices. ■

“ With gas storages fast approaching their filling points ... the power generation sector is left as the largest end-user ”

Monthly dry shale gas production

billion cubic feet per day



Shanghai Electric/Ansaldo consortium to build CCGT in Bangladesh

Shanghai Electric, in consortium with Ansaldo Energia, has been contracted by North West Power Generation to design and build a combined-cycle gas power plant in Rupsha, western Bangladesh. The 880 MW plant will be powered by two GT26 gas turbines, manufactured by Ansaldo in Genoa.

Apart from the turbines, Ansaldo Energia will also supply the related generators, auxiliary systems and on-site support activities for the construction and commissioning of the plant.

Consortium leader Shanghai Electric will be responsible for the local construction activities and will also produce and install the power plant's steam turbine generator.

Commissioning and start-up due by mid-2023

The Rupsha CCGT, expected to be operational after three years of construction, has been designed to achieve the highest level of efficiency and meet the latest environmental standards. Once operational, it will be the largest power plant in

Bangladesh to date.

Its owner and operator, North-West Power Generation Company is an affiliated company of the Bangladesh Power Development Board (BPDB) – is one of the country's major energy utilities, with a generation mix of gas and oil.

Ahmad Kaikaus, secretary of the Bangladesh ministry of energy expressed confidence that the consortium partners will deliver the project on time, in good quality and with the highest health and safety standards. ■



Contract signing ceremony in Bangladesh

Cummins to install QSK60G lean burn gas genset in Spain

TROIL Vegas Altas, an olive oil treatment plant in Valdetorres, Spain, has contracted Cummins to install a QSK60G lean burn gas generator. The genset offers 1540kW of continuous power supply, with operations stabilised by a Cummins PC3.3 controller incorporated within the generator.

Olive oil manufacturing is complex and the treatment of oil sludge, a by-product, requires a reliable solution to ensure TROIL's plant in Valdetorres can operator continuously.

According to the manufacturer, the initial mass of by-products processed from oil mills derives with a humidity range of approximately 65–70%. This mass is then poured from the rafts and is stored. About 50% of the mass weight is separated as vegetal (from plants or vegetables) water and the rest accounts for the remaining seedless olive pomace oil with 60% humidity.

To make best use of the by-product, Cummins proposed a combined heat and

power (CHP) application. Hereby, the power generated by the existing two gas generators and the Cummins QSK60G generator, installed within the oil treatment plant, is used to dry the pomace and evaporate most of the vegetal water.

At the same time, the power from the exhaust gases is used to heat air in a gas/air exchanger reaching a temperature of around 360°C. This excess heat is utilised to dry the wet pomace produced in the mill.

Through this cogeneration application, the facility can now gain significant fuel and financial savings by also exporting any excess power generated to the Spanish national grid. ■

Wärtsilä wins 200 MW power plant contract in South America

The Finish technology group Wärtsilä will supply a flexible baseload 200 MW power plant to a country in the Northern Andes. The customer signed the contract in June and commercial operation of the plant, powered by 11 Wärtsilä 50SG, is due to start at the end of 2021.

Once fully operational, the 200 MW fast-starting Wärtsilä solution will provide grid balancing to deal with rising volumes of intermittent wind and solar power supply. At the same time, it will serve as a capacity plant to back up the system in cases of shortage.

The plant will be powered by 11 Wärtsilä 50SG engines running on natural gas. Wärtsilä is supplying and installing the plant on a full engineering, procurement, and construction (EPC) basis.

"We are on a path to a 100 percent renewable energy future, which means fast-starting and efficient load following flexibility will be increasingly needed to balance the power systems," Sampo Suvisaari, Wärtsilä's Energy Business Director for Latin America North, pointed out. He called it "remarkable" that the construction contract was negotiated remotely from start to finish, owing to the specific challenges of the coronavirus pandemic in South America. ■



Render of Wärtsilä's 50SG gas power plant



Cummins' QSK60G generator at TROIL Vegas Altas plant

LNG Journal Subscription Package

LNG Journal is a ten-in-one subscription product with end-to-end insight into liquefied natural gas. The LNG Journal platform includes:

LNG JOURNAL	Monthly Online + optional print magazine
LNG UNLIMITED	Online every Tuesday + PDF
GAS TO POWER JOURNAL	Online every Friday + PDF
LNG MARKET TRACKER	Online every Wednesday + PDF
LNG SHIPPING NEWS	Online every second Thursday + PDF
LNG MONTHLY MARKETS	Online Monthly + PDF
LNG CHINA	Online every second month + PDF
LNG NORTH AMERICA	Online every second month + PDF
LNG FUELLING	Online every quarter + PDF
DAILY UPDATES and Newsletters	

*Different multi-user options
are available on request.
GBP price - UK only
EUR price - Europe only
US\$ price - Rest of the World.*



Subscription Contacts

For new subscriptions or general subscription queries please contact:
Stephan Venter
+44 207 017 3407
venter@lngjournal.com

To renew an existing subscription or to upgrade your package, please contact:
Gabi Weck
gabi@lngjournal.com