Coal power expected to remain dominant in China

Print

26 Jun 15, 17:41 - Coal, Natural gas, Fundamentals, Electricity

Washington, 26 June (Argus) — Coal will remain China's largest energy source even though natural gas is increasing its market penetration, a leading energy economist said yesterday.

Chinese coal demand has fallen this year as diminishing growth in heavy construction cut into power use to make cement, glass, plastic and steel. That economic slowdown caught markets by surprise, Lazslo Varro, head of the gas, coal and electricity markets division of the International Energy Agency, said in a speech in Washington, DC.

But "coal is likely to be very cheap," and gas probably will contribute less than 25pc of China's energy consumption, Varro said. Spot Chinese domestic coal prices are down by more than one-third in a year and a half.

Gas service is being added to 20,000 Chinese homes each day, but China has been challenged in developing its shale gas resources, Varro said, and awaits another major gas pipeline from Russia. A combination of low-carbon fuel sources like nuclear power, hydroelectricity, wind and solar will exceed the share of gas for Chinese energy use over the next five years.

China was the site of much of the 350GW of new coal generation added in Asia from 2010 to 2014,he said, and 80pc of that generation is supercritical. The boiler unit in a supercritical plant operates at more than 3,200 psi and turns liquid water immediately to steam, a much more efficient process than in earlier coal plants.

The marginal costs of these supercritical plants are unbeatable, he said, with natural gas only competitive at $4/mmBtu, or at $8/mmBtu with a $50/t carbon price.

"The coal industry dreams of gas back at $5/mmBtu, where LNG to Asia and Europe is hard-pressed to compete," Varro added.

dg/ee

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World gas demand slows while US production grows

Print

26 Jun 15, 15:28 - Natural gas, Fundamentals

Washington, 26 June (Argus) — US gas production will continue to grow through the end of the decade despite a weakened world economy, a leading international economist said yesterday, with much of the new supply landing in European markets.

Demand for the fuel in the US is slowing because energy efficiency measures curb the growth of power generation, said Laszlo Varro, head of the gas, coal and electricity markets division of the International Energy Agency (IEA)

"Growth in gross domestic product and power demand no longer has the same elasticity," he told a small audience at the Center for Strategic and International Studies.

The agency has adjusted global gas demand down by 0.3 percentage points from last year's outlook to 2pc through 2020.

At the same time, Varro said the agency keeps forecasting US gas production at higher levels, and "running 10 years ahead of where we projected."

The US Energy Information Administration foresees 2020 dry gas production at 28.8 Tcf (815bn m3) in its reference case.

North American gas production benefits from cost deflation, technological progress, access to capital and the bounty of the Marcellus Shale.

"Gains in oilfield services overcompensate for the loss of revenue [due to low prices]," Varro said.

Much of that new production will be headed to Europe because Australia will dominate the Asian market, where US supply will be handicapped by high shipping costs.

Europe's declining gas production and the cutback in Libyan LNG exports make room for US supply on that continent while allowing the current level of Russian flows to continue. The IEA forecasts Europe's LNG receipts to roughly double from 2014 to reach 3.2 Tcf of pipeline equivalent in 2020.

Buyers seem cautious on the competitiveness of Henry Hub-priced LNG, he said, with export projects under construction continuing to completion, but a slowdown in further developments.

He added that US gas demand growth is also limited by the expansion of the service sector of the economy and the development of renewable energy.

Ultimately, competition to gas comes from Silicon Valley, which has brought better forecasting techniques to bear for wind and solar power, making their output more predictable.

"If your gas turbine only runs when there is no sun or no wind, it is only going to run 1,000 hours/yr," Varro said.

dg/tdf

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Technology can cut methane emissions: study

25 Jun 2015 05:01 GMT

Washington, 25 June (Argus) — Voluntary efforts by the US oil and gas industry to limit methane emissions from wellhead to burnertip are not enough, a green group study says, but performance-based standards can economically reduce pollution levels.

Michael Obeiter, senior associate at the World Resources Institute (WRI), said a deep reduction in emissions is technically feasible through performance standards, which are better than technology standards in most cases.

The release of the WRI study comes a day after the Environmental Protection Agency sent to the White House for internal review a proposed rule expected to set first-time limits on methane pollution from the sector.

The institute proposed many technical changes to industry practices, ranging from replacements of rod packing systems at reciprocating compressors to establishing an emissions standard of dry seal centrifugal compressors. Other recommendations included the use of portable compressors during planned pipeline maintenance and approval of state regulators for accelerated replacement programs on distribution systems.

The industry views methane emissions, also known as lost and unaccounted for gas, in a different manner. Consultant ICF International said significant disagreements exist in counting how much gas is actually escaping the system, which could provoke policy-makers to over- or underregulate various sectors of the natural gas business.

Tom Michels, executive director of the One Future Coalition, said a small number of sources account for the vast majority of leaks. The coaltion is comprised of producers, pipelines and distributors that have a goal of a 1pc leak rate target of methane emissions from their value chains.

"We believe it can be done voluntarily, and that is the only way to [be] cost effective," Michels said.

Obeiter added, "There are not as many followers as we hoped there would be in the natural gas industry."

dg/tdf

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EPA methane emissions rules reach White House

24 Jun 2015 17:01 GMT

Washington, 24 June (Argus) — The Environmental Protection Agency (EPA) yesterday sent to the White House for internal review a proposed rule expected to set first-time limits on methane pollution from the oil and natural gas sector.

EPA plans to propose a rule in August covering new and modified oil and gas production sources, compressors, gas processing plants and pipelines.

The agency is also likely to propose guidelines for limiting volatile organic compounds (VOCs) from existing sources in areas not meeting federal air quality standards for ozone.

The federal Office of Management and Budget (OMB) now will lead federal interagency review of the proposal, similar to a review of the Clean Power Plan. The OMB has squelched some rules because of cost concerns in the past, but this seems unlikely because the rules are a key part of President Barack Obama administration's effort to reduce greenhouse gas emissions.

The agency said yesterday that the regulation would cover source determination for "certain emissions," without naming them. Industry groups are hoping EPA will decide to issue regulations that only cover VOCs, with methane regulations as a co-benefit.

"It is unclear from the OMB notice exactly what EPA is planning to regulate," said Dan Whitten, senior director of Americas Natural Gas Alliance, a group of independent producers.

The oil and gas industry also worries that the rule could ultimately trigger mandatory emissions standards on current facilities. EPA plans to issue the rules for new and modified sources under section 111b of the Clean Air Act, after which EPA is required to issue rules for existing sources, though the agency will retain discretion over timing.

President Obama announced a plan to regulate methane emissions from the oil and gas sector earlier this year as part of his ongoing efforts to reduce emissions of greenhouse gases.

Industry groups were reluctant today to criticize the proposal, but suggested that new regulations could interfere with ongoing voluntary efforts to reduce upstream methane emissions.

"By allowing us [enough] run time, we can cut emissions more cost effectively than with a regulation," said Tom Michael, executive director of the One Future Coalition, a group of producers, pipelines and gas distributors.

Whitten said methane emissions from US natural gas production are down 38pc since 2005 without federal mandates.

Additionally, a 2012 EPA new source performance standard for oil and gas wells captures most VOCs that would have been released in recent years and much of the fugitive natural gas.

dg/ck/tdf

Asia will absorb all Australian LNG: professor

19 Jun 2015 13:49 GMT

Washington, 19 June (Argus) — The Asian LNG market will continue to grow rapidly and Australia will be its biggest supplier, University of Tulsa energy economics professor Ronald Ripple said.

However, US-based Cheniere Energy is likely to remain competitive in the global LNG market because the majority of its contracts are take or pay, Ripple said at the US Energy Information Administration's conference this week.

Two-thirds of Australian gas production will be exported when all liquefaction projects are in place, up from half of its output last year, Ripple said.

Using data from London-based BP, Ripple projected that Asia's deficit between consumption and production will grow to a 24.4 Bcf/d (690 m³) shortfall by 2020, despite Australia's contribution.

"All of the projects there will be completed and run full out," he said. "There is an incentive to operate in Australia only if you want to recover incremental costs."

Further supporting that outlook, Ripple noted that the Paris-based IEA assumes that only four nuclear reactors will return to service in Japan by 2020, displacing 1 Bcf/d.

China's projected consumption varies as its energy use shifts slowly to gas. The country still takes more gas by pipeline than by ship and is the only country in the Asia Pacific region to have pipeline deliveries, he said.

As the demand for the fuel grows, the value of LNG trade will exceed pipeline trade by the early 2030s, Ripple said, and by then the US will have more excess overproduction than in the middle east.

He described Cheniere Energy's sales contracts of Henry Hub plus 15pc, $3/mmBtu for liquefaction and then the shipping cost as a throwback to cost-plus pricing, not netback pricing.

"Cheniere has 60pc of its capacity under take-or-pay contracts and will probably do OK anyhow," Ripple said.

dg/dcb

US natural gas market may tighten later this year

19 Jun 2015 17:41 GMT

Washington, 19 June (Argus) — US natural gas supplies could tighten this year because of exports to Mexico along with industrial growth and continued coal-to-gas substitution, experts said at an industry conference this week.

Production will decline through 2016 and then ramp up again in 2017, Chubu US Gas Trading vice-president David Selbst said at the LDC Forum in Boston.

Chubu is the Japanese utility subsidiary that will secure supply and have it liquefied for export from the Freeport LNG project in Texas.

"If production stays stagnant, demand is up, and [Cheniere Energy's] Sabine Pass [liquefaction terminal] sends out a boat, prices could lift considerably this winter," said Jack Weixel, vice president of consultancy PointLogic Energy.

But natural gas buyers at the conference were divided over how producers will respond to the weak market. As shale gas resources become better understood and drilling techniques improve, some buyers saw no reason to dispute Henry Hub futures prices through the end of the decade **will** stay under $4/mmBtu.

Lower production will not start until next year, said Tim Thornton, president of Patriots Energy Group, a South Carolina purchasing agency.

Only switching from coal to gas for generation keeps prices above $2/mmBtu, said James Tinsley, head of east gas trading for Direct Energy Business. "Production is just pausing until more midstream assets are built," he said.

Andy Price, president of Competitive Energy Services, has seen some of his New England customers pushed to the brink because of high fuel prices in recent winter. "By 2018-2019, hopefully prices will come down," he said.

While buyers could be expected to talk their position, their view is bolstered by EIA data that shows March production at 6.2pc more than a year earlier, or 80.78 Bcf/d (2.3bn m^3/d), at the tail end of a cold winter.

dg/dcb

New England must compete for gas: Southwestern

17 Jun 2015 20:26 GMT

Boston, 17 June (Argus) — Southwestern Energy chief executive Steven Mueller challenged New England consumers to stay relevant as rapid demand growth in other regions pulls gas away from the northeast.

Producers sought for decades to find ways to move gas on long lines to the northeast, Mueller said this week at the LDC Forum in Boston. But now Southwestern, the fourth-largest US gas producer, has focused on serving the mid-Atlantic and southeast US, which are larger markets with more gas-fired power generation, he said.

Demand growth in New England over the next five years is comparatively low.

"To get the gas you are going to want, you are going to have to get someone's attention," which is now focused to the south, Mueller said. New England's needs may not be met simply by rerouting existing lines and getting small gas additions from various sources, he added.

The development of unconventional US gas fields such as the Marcellus shale in Pennsylvania and West Virginia have propelled independents like Southwestern to become the biggest gas producers in the US since majors came late to rich shale fields. The Marcellus shale, a key operating area for Southwestern, is the top gas producing field in the US and has been a primary driver of domestic output growth.

Mueller spoke following presentations by pipeline companies on proposed expansions that would deliver Marcellus shale gas to New England. Most of them will not be completed until the 2017-18 heating season, at the earliest.

Meanwhile, federal regulators have focused on ensuring energy security in the northeast through reliability measures proposed by power grid operators.

Pipelines said that generators still shy away from firm pipeline capacity commitments. But Gregory Crisp, general manager of Spectra Energy, said seven electric distributors have shown interest in Algonquin Gas Transmission's Access Northeast project, and could roll in the costs based on the regulatory model of local gas distribution companies.

Tennessee Gas pipeline (TGP), the other major long-haul line serving the region, is also pursuing new customers.

TGP vice president of marketing Sital Mody said transport from Wright, New York, on the proposed Energy Direct project to New England will be priced at rates higher than the maximum rate on existing facilities.

Mueller said that in the first five months of 2015, New England gas prices were near par with those of Europe. Algonquin citygates averaged $7.76/mmBtu in daily markets, while the UK National Balancing Point averaged $7.16/mmBtu.

"One of the things we have to is to figure out how to get that [Henry Hub] differential back, so that New England can enjoy the same things that we are doing in the rest of the United States," he said.

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