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China Energy Monthly Report

August to October 2014

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NUMBERS

4.6%: The National Bureau of Statistics (NBS) announced that China's energy consumption per unit of GDP declined 4.6% year-on-year in the first three quarters of 2014.

2.6 TRILLION: China's National Energy Administration (NEA) announced that in the first half of 2014, China's power stations generated 2.6 trillion KWh, up 5.8% based on last year's levels. Of the total generated, hydro power plants accounted for 371.3 billion KWh (up 9.7%), nuclear power accounted for 56.6 billion KWh (up 16.9%) and wind power plants with installed capacity over 6000 KW accounted for 78.5 billion KWh(up 12.0%).

490: According to the International Energy Outlook 2013 published by the Energy Information Administration (EIA), China's natural gas demand will more than triple from 145.6bcm in 2012 to 490bcm by 2040 as the government seeks to move away from coal in favour of gas. The EIA predicts that the vast majority of China's demand will come from two sources: domestic production and liquefied natural gas (LNG) imports.

0.7 MILLION: PetroChina's Changning shale gas demonstration zone in Southwest China now generates 700,000 cubic metres of natural gas each day. Changning had produced over 50 million cubic metres of natural gas cumulatively since July. Nine shale gas wells have been put into operation in the zone since 18 April when a shale gas pipeline began operation. (XINHUA)

15%: China National Petroleum Corp (CNPC) reported that its 900km Myanmar-China gas pipeline had transported 1.87 billion cubic metres (bcm) since it started operation in June 2013, representing only 15% of its 12 bcm total capacity. Although CNPC did not offer a reason for the low output, Reuters said that the offshore Myanmar fields feeding the line were unable to supply enough gas.

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IN BRIEF

Key Policies

China's 2020 energy targets revised

In August, Wu Xinxiong, the head of the National Energy Administration (NEA), revised China's 2020 energy targets. The revision included reducing the coal-bed methane production target from 60-80 to 30 bcm, raising conventional installed hydropower from 20 to 35 GW, raising wind power from 18 to 20 GW and lowering photovoltaic power generation capacity from 14 to 10 GW. Targets for geothermal energy production of 50 million tons of standard coal equivalent and operational nuclear power installed capacity of 5.8 GW (3 GW of which is currently under construction) were also set. The most significant of these changes is the reduction of shale gas production from 100 to 30 bcm. (NDRC).

NDRC adjusts natural gas price for non-residential and residential use

China's top economic planner, the National Development and Reform Commission (NDRC) announced on 12 August that China would increase the wholesale price of natural gas for non-residential use by 20.5% from 1 September. The new price of non-residential natural gas will rise by 0.4 yuan to 2.35 yuan (US$0.382) per cubic metre at gas stations. The move comes as China aims to eliminate overcapacity in industries that rely heavily on cheap natural gas and as Beijing slowly loosens its grip on energy prices to accelerate the development of unconventional resources such as shale and coal-bed methane gas. The latest hike comes after a similar 15.4% increase for non-residential gas consumers in July 2013 when the NDRC launched a new pricing mechanism.

The NDRC said the pricing mechanism has produced "positive results" in terms of supply and demand, quickening the pace of domestic gas development and the introduction of overseas resources. On the same day, the NDRC made public that it would give up its control of the wholesale price of imported LNG, shale gas and coal-bed methane from 1 September, allowing suppliers to sign independent contracts with downstream users concerning gas trade and transport.

Finally, on 20 October, the NDRC and NEA jointly released a circular stating their aim to complete a tiered pricing system and formulate or adjust the sales prices of gas for residential use before the end of 2015. Furthermore, the regulators urged PetroChina and Sinopec to accelerate the construction and upgrading of gas pipelines to make their pipelines operate at maximum transmission capacity.

The newly announced policies, together with the pricing mechanism introduced in 2013, are among measures taken by the Chinese government to optimise gas usage and give energy companies more incentives to supply gas. Analysts, however, think that the new policies are not likely to have an immediate impact on retail prices until a new mechanism is introduced for residential use, as gas for non-residential use is currently relatively low. (Xinhua)

China reforms resource taxes on fossil fuel

On 18 October, the Ministry of Finance (MoF) and the State Administration of Taxation (SAoT) jointly announced that, from 1 December, China would adjust the resource tax on coal so that it is based on sales rather than production. It will be up to provincial governments to set their own rates, but within the range of 2 to 10%. The statement also stressed that similar reforms would be gradually expanded to other sectors.

Previously, on 11 October, MoF and SAoT announced that China would increase its resource levy on crude oil and natural gas from 5% to 6%, effective from 1 December. Meanwhile, the longstanding mineral resource compensation fee, set at 1% of sales revenues from oil and gas production, would be cancelled.

Bai Jingming, vice director of the Research Institute for Fiscal Science, part of MoF, commented that levying resource taxes based on sales will help prevent over-consumption and boost industrial upgrading. (Xinhua)

NDRC cuts on-grid tariffs of coal-fired power plants

The NDRC announced on 26 August that the country would cut on-grid tariffs of coal-fired power plants by an average of RMB0.0093/kWh (USD0.001487, or 2.3%) effective from 1 September. The cut reflects a fall in coal prices brought about by a large over-supply of thermal fuel. The on-grid tariff is the price at which grid companies pay power companies to buy their electricity, and is distinct from prices that end-users pay. The cut is smaller than the usual tariff change (usually between 3 to 5% per year) as well as the 3.4% of the last tariff cut effective on 25 September 2013.

Due to a reduction in revenues, the move will put pressure on Chinese power producers, many of which have only recently come out of heavy debt and continue to struggle with high interest rates. But insiders say the cut will not affect special subsidies set for those coal-fired power plants which have completed denitrification and desulfurization of exhaust gases. (News Sina)

Fossil fuels

Presidents Xi Jinping and Putin advocate west route gas pipeline

On 11 September, President Xi Jinping and his Russian counterpart, Vladimir Putin, called for an early start to work on the China-Russia western route natural gas pipeline. The meeting between the two came two weeks after both countries began construction of a joint natural gas pipeline in Russia's eastern Siberia. The construction followed a historic gas deal, signed in the presence of Xi and Putin in May, which will provide China with 4 trillion cubic metres of natural gas over the next 30 years, and will annually supply 38 bcm from Russia to China starting from 2018. (China daily)

Both the Mongolian and Kazakh governments have shown an interest in partnering with Russia to build such a western gas pipeline. But introducing a third party potentially has additional hidden economic and political risks. (Energy Monitor Worldwide)

China and Tajikistan construct new Central Asia-China gas pipelines

On 13 September, Chinese President Xi Jinping and Tajikistan's President Emomali Rahmon attended the opening ceremony of the Tajikistan section of Line-D of the Central Asia-China gas pipelines. Line D is the longest stretch of the China-Central Asia Gas Pipeline, running from Turkmenistan, via Uzbekistan, Tajikistan and Kyrgyzstan, to China. It is expected to deliver some 30 bcm per year of natural gas. 410 km of the 1000 km Line D pipeline will run through Tajikistan.

Construction of the third line began in 2012. It became operational on 15 June 2014, and is expected to reach the designed throughput of 25 bcm per year by December 2015. (People's Daily)

CNOOC offers 33 blocks in the 2014 bidding round

On 11 September, State-owned China National Offshore Oil Corporation (CNOOC) launched its 2014 tender for 33 upstream blocks in the South China Sea for oil exploration. The blocks, spanning 48,691 square miles, stretch from the north off Qingdao to the south surrounding Hainan Island and are situated up to 450 km off China's coast.

Responses to CNOOC's annual tenders have typically been poor, largely due to uncertain geological conditions. In its 2013 bidding round, CNOOC offered 25 blocks, 12 of which have been offered again this year. (Platts)

Sinopec short-lists companies for stake in its fuel retail network

Sinopec has shortlisted companies to buy a US$16 billion minority stake in China’s Sinopec Sales, the world’s largest fuel retail network. This is in response to Sinopec’s decision in February this year to sell up to 30% of its retail oil business to private investors by the end of 2014. Analysts widely viewed this as a response to Government calls to restructure National oil companies' monopoly. Sinopec Sales' net profit was US$4.1 billion in 2013 from over 30,000 service stations and more than 23,000 convenience stores.

The candidates include: Canadian retailer Alimentation Couche-Tard Inc, China's Tencent Holdings Ltd, State-owned China Life Insurance Co, Hong Kong-listed ENN Energy Holdings Ltd, privately-owned Fosun Group, Hopu Investment Management and Affinity Equity Partners.

Guanghui Energy granted China's first private crude import licence

On 29 August Xinjiang Guanghui Petroleum Co Ltd (Guanghui), a wholly privately owned subsidiary of Guanghui Energy, was granted an import quota of 200,000 metric tons of crude oil for 2014 – making Guanghui the first private company to obtain such a licence. The move is a sign of government's willingness to break up the state monopoly in the oil market. An industry expert close to the NEA said the authorities tend to grant the licences to large-scale refining companies and private companies owning overseas oilfield assets.

As the world's second-largest oil consumer, China has strict regulations on crude imports. It divides companies into two groups: the five large State-owned companies—PetroChina Co Ltd, Sinopec, CNOOC Ltd, Sinochem Corp and Zhuhai Zhenrong Corp—which have no limits on crude imports; and 22 other state companies, with import licences, which are given rights to import crude via a quota system. In 2013, China imported 282 million tons of crude, with the second group accounting for only 29.1 million tons (less than 10%), its maximum quota. Guanghui Energy's import quota is very small compared with China's crude imports in 2013.

Some analysts said that the move is the government's first step towards breaking up the monopoly of China's National Oil Companies, but there is still a long way to go before the volume imported by private companies accounts for a significant proportion of China's oil imports. (China Daily)

CNPC to sell energy assets in Xinjiang

CNPC have announced plans to sell oil and gas field stakes worth US$ 1.6 billion to local partners in the northwest province of Xinjiang. Company officials state that this will include at least two large untapped oil and gas fields. However, potential partners will be limited to companies backed by the Xinjiang government or Xinjiang Production and Construction Corporation. It is expected that the sales will bring growth and jobs to the region.

Xinjiang is the gateway for China's natural gas imports from Central Asia. CNPC's four west-to-east pipelines all run through the region, pumping fuel to markets in eastern and southern parts of China. (Bloomberg)

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Renewables

China renewable energy capacity continues to grow

In August, the NEA revealed that during the first half year of 2014 China added 3.3GW of solar power capacity. This included 2.3GW to utility-scale plants and 1GW to distributed generation, twice the amount compared with the same period in 2013. China currently has 23GW of solar power supply, almost seven times as much as Australia.

The addition of 1GW of distributed solar is in line with market expectations, but far from the authorities' ambitions largely because the previous feed-in-tariff policies for solar did not guarantee sufficient yields. However, a new feed-in-tariff (0.9~1.0 yuan per KWh electricity generated by solar power plants, and 0.42 yuan or US$7 cents subsidy for every KWh of electricity produced by distributed photovoltaic power units) will likely accelerate the deployment of distributed PV. The market predicts that substantial increases can be expected in Chinese PV installations in the second half of 2014, leading to a solar panel supply shortage thus pushing up prices. According to NEA data, China connected 6.32GW of wind to the grid in the first half of 2014. (PV Tech)

Shunfeng acquires German and US solar firms

At the end of August, Hong Kong listed Chinese solar firm Shunfeng Photovoltaic International (Shunfeng) acquired German solar firm SAG Solarstrom AG for US$85 million. The German company, which builds and operates solar power plants, had filed for insolvency in 2013 and is expected to receive about 50% of its insolvency assets. (Reuters)

JinkoSolar opens solar module factory in South Africa

JinkoSolar Holding Co. Ltd. a global leader in the solar PV industry in China, had opened a US$7.5 million solar module factory in Cape Town, South Africa. The factory has an annual production capacity of 120MW PV module production. The opening of the factory makes JinkoSolar the first foreign solar manufacturer to build production facilities in South Africa. (People's Daily)

Unconventional

China reveals 2020 shale gas target breakdown

On 1 September Li Yuxi, an official from the Mineral Resources and Reserves Evaluation Centre, under the Ministry of Land and Resources (MLR), announced how China's revised overall 30 bcm shale gas target for 2020 would be delivered. It is anticipated that PetroChina and Sinopec will produce 13-16 bcm and 12-15 bcm per year respectively. Foreign production sharing partners are expected to produce 1 to 2 bcm per year. Mr Li predicted that China will meet its 2015 6.5 bcm shale gas target, made up of 3.5 bcm from Sinopec, 2.6 bcm from PetroChina and the rest coming from production-sharing partners.

An official from PetroChina said recently that the company is on course to surpass its 2015 shale gas production targets at fields in Sichuan Province. The company aims to produce 2.6 bcm in 2015.(Reuters)

Sinopec set to construct China's largest synthetic natural gas plant

On 9 September Reuters reported that Sinopec is pushing ahead with plans to build China's largest synthetic natural gas (coal-to-gas) plant in the north-western region of Xinjiang. The scale of the project had led analysts to speculate that the US$10 billion project might be cancelled.

Company spokesman Lu Dapeng, stated that it would take 4-5 years to build the plant after getting final regulatory approval. Currently, the company is finalising feasibility studies for the plant, as submitting the studies would be a key step toward winning final government approval.

Meanwhile, the NEA has repeatedly called for "cautious" and "orderly" synthetic natural gas development. However, since 2013 China has rapidly accelerated its development of synthetic natural gas and has built 2 plants with a further 48 in planning or development stages nationwide.

Nuclear

Russia and China partner on floating nuclear power plants

In early August, Russia's nuclear export body Rusatom Overseas announced it had signed a Memorandum of Understanding with China's National Nuclear Energy Company (CNNC) for the development of floating nuclear power plants (NPPs). Both sides believe that floating NPPs can provide a reliable power supply not only to remote settlements but also to large industrial facilities such as oil platforms. Further details were not made public.

Russia's first floating nuclear power plant, Akademik Lomonosov, is currently under construction in Saint Petersburg. Upon completion, Akademik Lomonosov will be deployed at Vilyuchinsk, in the Kamchatka region in Russia's Far East. Delivery of the vessel is set for 2016. (Pennenergy)

Saudi Arabia and China to increase nuclear energy cooperation

On 7 August, the King Abdullah City for Atomic and Renewable Energy (K.A.CARE) signed an Memorandum of Understanding with CNNC in Shanghai on cooperation mechanisms for the peaceful use of nuclear energy. Details of the agreement were not made public. In 2012, both countries signed a similar agreement on the civilian use of nuclear energy.

K.A.CARE was established on April 17, 2010, with the fundamental aim of developing substantial alternative energy in order to reduce Saudi Arabia's dependence on nonrenewable hydrocarbon resources. According to government estimates, anticipated demand for electricity in Saudi Arabia is expected to exceed 120GW in 2032. Without alternative energy and conservation measures, the overall demand for fossil fuels is estimated to grow from 3.4 million barrels of oil equivalent per day in 2010 to 8.3 million in 2028. (Arab News)

Grids

China State Grid builds Mediterranean power network

On 10 August, Reuters reported that China State Grid (SGCC) had bought minority stakes in Portuguese and Italian grid operators. In Italy, SGCC has bought a 35% stake, worth USD2.8 billion, from Italian energy investment company CDP Reti (refer Energy Monthly July 2014). If all goes to plan, it might become the first utility to build a major regional electricity grid portfolio.

SGCC, a wholly state-owned company, distributes electricity to 1.1 billion people across 90% of China. It aims to more than quadruple its overseas assets to US$30-50 billion while seeking to diversify away from the domestic market in order to make higher returns. SGCC has also expressed interest in Greece and Spain’s power networks.

Map of China (source: www.mybeijingchina.com)