



Natural Gas, Realistic Choice to Green & Low Carbon Future

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**Honorable Chairman Mr. Carroll,
Ladies and Gentlemen, good morning!**

I am much honored and grateful to speak on today's G20 Gas Day at the kind invitation of the organizing committee. The use and development of natural gas have changed the pattern of global gas consumption, and promoted the revolution of China's energy production and consumption. Natural Gas is playing an important role in pushing forward eco-civilization and improvement of people's living standard. We can say that natural gas is the realistic choice to a green and low carbon future based on the following points:

I. Natural gas is changing our lives

Human being's use of energy evolves from high carbon to low carbon. Compared with coal and oil, natural gas is playing a key part in China's energy revolution leading to low carbon future, although such a time comes later for almost half a century than that in the developed countries. Natural gas share now in the world primary energy consumption mix reaches 24%. The annual per capita gas consumption is 450 cubic meters. Especially, with the effective development of unconventional shale gas, natural gas is ushered in a "golden era" for development and utilization. In order to tune down the dominant position of fossil fuels particularly coal in energy mix, China is striving to reduce coal consumption, increase gas consumption, and greatly enhance the share of alternative energies of wind power, solar energy, geo-thermal energy, as well as nuclear power. Our aim is "gas for green".

China is one of the earliest countries in the world using natural gas. Over the past decade, China has experienced a period of high-speed growth and large-scale utilization of gas with the operation of West-East pipeline as a milestone. From 2000 to 2014, its annual average gas consumption growth was as

high as 15%. Last year saw China's gas consumption at 190 BCM, yet taking up only less than 6% in the primary energy consumption mix, which shows that China's gas development is still in the preliminary stage with huge potential in the future. By 2020, China's gas consumption is expected to reach 360 BCM, taking up over 10% in the mix. The main demand growth drivers are the followings:

First, rapid growth of city gas. From 2016 to 2020, out of China's 337 prefecture-level cities, over 95% will be using natural gas. The annual average newly added population using gas will be 30 million across China, and the total population using gas by 2020 will reach 470 million.

Second, mounting use of gas in power generation. From 2000 to 2014, share of gas used for power generation was increased from 4% to 18%. By 2020, China's total volume of gas used in power generation will be close to 100 BCM. Gas fired power generation consumption will increase rapidly in developed regions like Beijing, Tianjin, Hebei, Yangtze River delta region and Pearl River delta region.

Third, high potential of gas use in transportation. The number of gas-fueled vehicles in China is 3 million, 3% of the national total. Gas consumption by vehicles takes up 10% of the national total. Gas-fueled vehicles will be an important part of an optimized energy mix in transportation.

II. CNPC is a key force driving China's green and low carbon development

As China's largest oil and gas producer and supplier, CNPC highly values natural gas business given its strategic importance and growing potential. As of 2015, CNPC has built four major gas producing areas namely Sichan, Qinghai, Tarim and Changqing.

Domestic gas production is 100 BCM, that's over 40% of the company's domestic oil and gas equivalent. CNPC's gas production and supply as well as length of pipelines in operation account for over 70% of the national total. Our gas supply covers 30 provinces nationwide and the Hong Kong SAR, which proves to be a great contribution to the optimization of energy mix, the improvement of air quality, and green development.

CNPC has been committed to international cooperation. We had extensive cooperation on natural gas development with countries along the Belt and Road. Gas pipelines from Central Asia, Russia and Myanmar to China have been put into operation. We also completed the construction of three LNG terminals. Last year, we imported over 40 BCM of natural gas, two thirds of the national total. Inside China, we collaborated with Chevron, Shell and BP in the field of high sour gas, CBM and shale gas.

What's worth mentioning here is that from 2010 to 2015, CNPC marketed 530 BCM of natural gas, equivalent to replacing 1 billion tons of coal, planting 4,070 square kilometers of forests, reducing 740 million tons of CO₂ emission, 11.6 million tons of sulphur dioxide, 6.8 million tons of nitric oxide, and 3.3 millions of dust. In particular, with the enlarged use of natural gas, air quality in Beijing, Tianjin, and Hebei is improving notably. Statistics shows that compare with last May, the PM 2.5 this May saw a drop by 19%, 16%, and 20% in Beijing, Tianjin, and Hebei respectively. In the coming five years, CNPC's supply of natural gas will exceed 750 BCM, which can replace 1.4 billion tons of coal by more emission reduction.

III. We must meet challenges positively for natural gas development

After continuous high speed growth, China's natural gas development has entered into a new

normal with demand slowing down evidently. There appeared new challenges of excessive gas in slack season and shortage of supply in winter. There are many factors behind: dropping down of international oil price, shrinking of market demand, relatively higher gas price, weak foundation of gas development, pricing mechanism needs to be improved; The price of imported gas is much higher than that of domestic gas, and the price spread between gas and coal was irrational; Utilization of natural gas was contained to some extent due to lack of gas infrastructure like pipelines and storage facilities; Besides, we need greater policy support for gas substituting oil and coal. However, these problems can, by no means, change the important position of natural gas in China's future energy mix for green development. We will definitely achieve a sustained, rapid and sound development of natural gas as long as we have more confidence in the future of gas; further strengthen gas exploration and development, and the construction of infrastructure; vigorously implement innovation-driven strategy; deepen reform on supervision system, accelerate the establishment of market-oriented pricing mechanism, and put in place of policies on environmental protection, taxation, finance and industry development.

Ladies and gentlemen, the "innovative, coordinated, green, open and shared development" vision is the strategic foundation of China's gas development in the future. By joining hands with domestic and foreign partners, CNPC will strengthen cooperation in the fields of resources development, infrastructure construction, technological innovation, international trading, as well as talent exchange, to achieve mutual benefit and win-win, and make new contributions to the sustained and sound development of natural gas industry.

Thank you!