STATEMENT OF

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before the

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“THE AMERICAN ENERGY INITIATIVE”

regarding

CHINA’S OIL AND GAS OUTLOOK

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Summary

The presentation considers the supply of and demand for oil and gas in China, as well as touching on key market players there. Key points include:

China Oil Demand

- China’s oil demand is approximately 10 mbpd vs 19 mbpd for the US
- Demand has been growing at approximately 10% per annum—slightly more than GDP
- We expect this growth to continue, and China to reach US consumption levels by 2018
- China’s potential demand for oil is 50+ mbpd in 2030, were the oil supply available

China Oil Production

- 4.4 mbpd at year end 2010, up 10% over 2009
- Not considered likely to expand much beyond current levels

China Import Requirements

- About half of consumption currently; up from no net imports in the 1990s
- Import dependence may reach 80% by 2020
- Important consideration for Chinese policy-makers

China Natural Gas Demand

- Historically less utilized resource in China; coal is more favored traditionally
- Chinese consumption was 3.9 tcf in 2010—one sixth of US levels
- Chinese per capita consumption is $1/26^{th}$ US levels; $1/9^{th}$ Korean levels
- Demand increasing at 15% p.a. in the last decade
- Anticipated to increase at 14% p.a. to 2015; 11% p.a. from 2015-2020
- Demand doubles to 2015 to 7.5 tcf; nearly four-fold to 2020 at 12.6 tcf

Chinese Natural Gas Supply

- Chinese supply at 3.3 tcf in 2010; 13% growth per annum over last decade
- Growth over 10% per annum anticipated over next decade
- Supply of 6 tcf by 2015; 8.6 tcf by 2020
- China has substantial coal bed methane (CBM) and gas shales reserves
- CBM production has substantially lagged expectations
- Shell and PetroChina together drilled China’s first gas shale wells in December 2010

Chinese Natural Gas Imports

- From nil in 2006 to 1.5 tcf in 2015 (20% of consumption), to 3.3 tcf in 2030 (31% of consumption)
- Major sources: pipeline from Central-Asia (operational); pipeline from Russia (under negotiation); LNG imports from Australia, among others
- Imports in 2020 will be greater than total consumption today

Chinese Oil and Gas Companies

- Essentially PetroChina, Sinopec and CNOOC
- All listed on the New Stock Exchange, report in English per SEC requirements
- Behavior viewed as essentially commercial in nature

Testimony

Mr. Chairman and Members of the Committee:

I am deeply honored for the opportunity to appear before you today to discuss China's oil and gas markets.

Our firm, Douglas-Westwood, is a leading consultancy in market research covering oil field services in difficult-to-access countries like China and Russia, among others. I manage our New York office.

China's Oil Demand

Let us begin with China's oil demand. China consumes 10 million barrels of oil per day (mbpd) on global consumption of about 88 mbpd. China is already the second biggest consumer of oil in the world.

How will China's demand develop? The historical record suggests that oil demand evolves quite similarly across a range of countries, with demand ascending an "S" curve as a country motorizes. China entered this "S" curve around 2005 and we forecast China to reach steady-state consumption in the 2025-2030 time period. At that time, we would anticipate that China might have per capita oil consumption similar to that of South Korea, implying demand in excess of 50 mbpd, versus 19 mbpd today for the US. Further, we see China surpassing US consumption levels around 2018.

China's Oil Supply

China's conventional oil fields are mature. The country currently produces around 4.4 mbpd, and this level is anticipated to remain broadly stable for the rest of the decade. Like the US, China currently meets about half its needs through imports. This is new. As late as the 1990s, China was self-reliant in oil. Today, it must be active in global markets to secure domestic needs. Indeed, it has to obtain about an additional one mpbd each year just to keep up with demand.

And the situation will deteriorate markedly in the coming decade. By 2020, China's dependence on foreign oil may be as much as 80%, versus an anticipated 40% for the US. China's vulnerability is cause for concern for the country's policy-makers.

China's Natural Gas Demand

Turning to natural gas: China consumed only 3.9 tcf of natural gas in 2010. The US consumed six times as much.

China's per capita consumption is even lower, about $1/26^{th}$ of the US. As a consequence, there is considerable scope for rapid consumption growth in China, well past 2030.

China's natural gas demand surged 22% last year and growth has averaged nearly 15% over the last decade, and we anticipate this pace to continue. This would imply demand doubling to 2015, nearly quadrupling to 2020.

China's Natural Gas Supply

China's natural gas production has tripled in the last decade, from 1.0 tcf in 2000, to 3.3 tcf in 2010, a growth rate of 13.3%. We project this to double to 6.0 tcf in 2015 and nearly triple to 8.6 tcf in 2020, implying 10% annual growth. Coal bed methane and shale gas are hoped to each constitute 5-10% of the natural gas supply in ten years time.

China’s Natural Gas Imports

As late as 2006, China was self-sufficient in natural gas. However, the country has been a net importer since then, with imports soaring to 550 bcf in 2010. Our forecast calls for imports of 1.5 tcf by 2015, rising to 4.0 tcf by 2020, representing an import dependence of more than 30%. Indeed, by the end of the decade, China may import more than current total consumption.

China has three leading import options for natural gas: Central Asia, Russia and LNG shipments. Overall, China’s natural gas import prospects look promising from this diversity of sources, each with substantial supply capacity.

The Chinese Energy Companies

The Chinese oil and gas sector comprises essentially three companies: Sinopec (China Petroleum & Chemical Corporation Limited), PetroChina (China National Petroleum Corporation) and CNOOC (China National Offshore Oil Company). Sinopec and Petrochina operate primarily in onshore fields and have refining and distribution operations. CNOOC specializes in offshore oil and gas exploration and production, although it has diversified recently.

All three Chinese majors are medium to large-sized oil companies and have a combined market capitalization (value) of around $450 billion. PetroChina, the largest of the three, has about the same capitalization as General Electric. The shares (ADRs) of all three companies are listed on the New York Stock Exchange and the companies provide standard disclosures as required by the SEC.

Our analysis suggests the Chinese oil majors act much like other oil companies to maximize revenues and profits; gain exposure to growth plays like shale gas; partner with other oil companies to obtain capital and technical knowledge; and diversify their portfolios to manage risk.

We believe they do not represent material risk on the supply side; but China's oil demand will likely keep pressure on oil prices for the indefinite future.

I thank you for your attention and will try to answer any questions you may have.