Research indicates China's demand for oil will equal US demand by 2040

December 1 2011

Despite aggressive demand-management policies announced in recent years, China's oil use could easily reach levels comparable to today's U.S. levels by 2040, according to a new energy study by the Baker Institute.

The study's authors said this finding has timely significance because China's growing energy use could continue to pose a major challenge for global climate deliberations in South Africa this week.

The study, "The Rise of China and Its Energy Implications," finds that China's recent efforts at centralizing energy policy do not appear to be significantly more successful than the makeshift patchwork of energy initiatives devised by the United States. In fact, the study said, the U.S. system of open and competitive private sector investment is stimulating more innovation in the American energy sector than in the Chinese energy industry, especially in the area of unconventional oil and gas.

That, ironically, is attracting Chinese state investment to U.S. shores and prompting Beijing to consider further opening of its oil and gas exploration activities to partnerships with U.S. firms, the study said.

China, like the United States, has substantial potential shale gas resources but faces technical, regulatory and market infrastructure challenges that are likely to delay rapid development. Were China to mobilize investments in shale gas more quickly, the study said, it could greatly reduce the country's expected large import needs for liquefied

natural gas (LNG) from Australia and the Middle East and contribute to a future glut in global natural gas markets.

Despite sporadic government policies to discourage private car ownership, the growth in the number of vehicles on the road in China has more than quadrupled in recent years to more than 50 million. The Baker Institute report projects that this number could increase to more than 200 million vehicles by 2020 and 770 million by 2040 under a scenario where China's real gross domestic product growth averages 6 percent between now and 2030. Even under a scenario where the number of electric cars rises to 5 million a year by 2030, which is in line with ambitious targets announced by China's National Development and Reform Commission, China's oil use from the transportation sector will grow significantly, the Baker Institute study said.

"Given the scale of vehicle stock growth in China, it is going to be extremely difficult to move the needle of the country's rising transport fuel outlook," said Kenneth Medlock, a study author and the James A. Baker III and Susan G. Baker Fellow in Energy and Resource Economics at the Baker Institute.

The study noted that China's "going abroad" strategy has also encountered recent difficulties in light of geopolitical events and rising global political risks in oil-producing regions.

"China is learning that owning equity oil in risky regions may not be as effective an energy security strategy as it had previously imagined," said Amy Myers Jaffe, an author of the study and the Wallace S. Wilson Fellow for Energy Studies at the Baker Institute. "China is now finding itself mired in more energy-related foreign diplomacy than it bargained for.

"But this could be good news for the United States," Jaffe said. "It may

mean China will be more inclined to act in concert with other members of the international community in conflict-prone regions."

The study noted that China has tried to offset some of this risk by increasing investments in the United States and Canada, which gives the U.S. more leverage in seeking China's collaboration in international diplomatic matters.

Provided by Rice University