The Oil Drum
DISCUSSIONS ABOUT ENERGY AND OUR FUTURE

A small supplement on LNG supplies

Posted by Heading Out on March 10, 2006 - 2:33pm
Topic: Supply/Production
Tags: china, india, indonesia, japan, korea, lng, mexico, natural gas, tangguh, united states [list all tags]

Dave has been posting about our coverage of the natural gas problem, and some un-natural sources. He has explained some of the problems of LNG and it is this I would like to re-visit to reinforce the concern about supply. It starts with a Chinese problem, that may end up biting both the US and Japan.

Platts is today carrying a story on Electricity problems in China. To extract the essence of the story, China wants to import LNG to provide surge capacity for its electric power generation. However it had planned on getting the LNG from Australia, until the world price for LNG started to increase.

> Electricity produced by LNG-fired power plants would indeed be uncompetitive with that from other sources David Hurd, Deutsche Bank's managing director and head of oil and gas research in Asia, told the (Beijing oil and gas) conference Thursday.
>
> According to his research, coal-fired plants can produce electricity at a cost of $35/MWh, compared with $38.9/MWh for plants supplied by PetroChina's 4,000 kilometer west-east pipeline and $42/MWh for LNG-fired plants. The calculation for LNG power plants is based on the FOB price of LNG term supplies from Australia's North West Shelf to CNOOC's Guangdong terminal, which Hurd put at $3.03 per million Btu.
>
> That price was settled a few years back when LNG was still a buyer's market. But things have turned 180 degrees since then as LNG prices have risen along with by persistently high international oil prices.
>
> A multitude of technical, environmental and political problems have also hit operations and expansion of existing LNG trains as well as various new LNG trains around the world, giving prices another push, Hurd said.
>
> Benchmark spot US natural gas prices rose to historical highs above $14 per million Btu in late 2005.

The increase in relative cost meant that China was no longer interested in buying the 100 million mt Australian LNG from the Gorgon field some of which is coming to the USA, and Platts reports that the volume slated for China was then sold to the Japanese for around $3.8 to $4.0 per million Btu.

China, meanwhile, according to Platts, is negotiating with Indonesia about the price it is paying for LNG from that source

> CNOOC is currently renegotiating the price formula of Indonesia's Tangguh LNG Supply for its Fujian terminal project, a contract which it inked back in 2002. At the time, the agreed formula was linked to a cap of $25/barrel on crude oil prices, against which long-term LNG contract prices in Asia are normally linked. But with crude prices much higher over the last two years, CNOOC has conceded to renegotiating the price cap clause.
>
> "The LNG market (is) moving away from China" as Chinese buyers continue to stick with their purchase price expectation of $3 per million Btu, Deutsche Bank's Hurd said. "Even if five (LNG terminals) would be built (in China) by 2010, three of them will be empty" without LNG supply, he said.

(The Chinese seem to be beginning to recognize that they are now in a buyers market). Interestingly in this regard, the US is also anticipating that it will get LNG from Indonesia for the new terminal that is being built in Mexico and slated to come on line in January 2008.

Indonesia has seen its Asian market for LNG threatened by competition, that has, until recently, kept the price down. However, as it looks to an increasing price for its product, it must also recognize that its fields are depleting. The US Embassy reports that the two production fields (Arun and Badak in Bontang) have problems. For the Arun field

> 90 percent of Arun's gas resources are now depleted and committed reserves will run out entirely in 2018. The Block A gas field in North Aceh remains undeveloped pending an agreement between operator ConocoPhillips, partner ExxonMobil and the GOI on revenue sharing terms. . . . . the GOI requirement to provide low cost natural gas to national fertilizer plants has reduced LNG production and caused state-owned Pertamina (which operates Arun) to defer 6 cargoes to Japanese and Korean buyers from 2004 to 2008. The GOI convinced buyers to defer an additional 9 cargoes for 2005.

For the Bontang field

> Bontang currently produces about 20 mtpa of LNG. It began experiencing LNG shortfalls in 2004, causing the GOI to ask its Japanese buyers to cancel 41 LNG cargoes for 2005. Maintaining Bontang's production has its own set of challenges:
> - the three gas providers (Total, VICO and Unocal) have experienced underproduction or inconsistent production due to maintenance, accident or low field performance. . . . . despite LNG shortfalls, the GOI diverts gas from Bontang's producers so that Pertamina can sell subsidized gas to a national fertilizer plant group and two small Japanese-owned plants.

Given the problems with these fields it is a little worrisome that the new field at Tangguh, slated to deliver LNG to both Korea and China is falling further behind schedule according to the US Embassy report, and this may be due to local protests though the management contract for construction of the processing facilities has just been signed. This delay may force power plants to close in China.

India meanwhile, which has also been facing problems with guaranteeing supply, has now arranged a supply from Qatar which will help fill a current 50% shortfall in anticipated supply needs. At the same time, BP is arranging for LNG supplies to the UK and US from Nigeria. Perhaps those will cover the problems that may, by then have arisen, with Indonesian production. But it will also mean that the Chinese are likely to have to rely more on coal, and less on natural gas.