

Chinese gas imports – the shifting dynamics



Investments by NOCs show a commitment to increasing natural gas's share of the energy mix

To keep pace with rising domestic energy demand, China began importing LNG in 2006, according to the International Energy Agency (IEA). Its latest report, 'Overseas Investments by China's National Oil Companies [NOCs]', looks at Chinese efforts to secure energy supplies through its NOCs.

The paper says China is aiming to increase the share of natural gas in its energy mix from 4% in 2009 to 8.3% by 2015. This is not entirely a maritime story; there is an undercurrent in Chinese NOC

planning that is seeking to avoid shipping choke-points where possible (see map) and the IEA details various moves to import gas by pipeline from Central Asia. Shipments from Turkmenistan began in early 2010 and deliveries through Myanmar are slated to begin in 2013-14.

An overarching aim of China's NOCs has been to diminish the need for energy shipments to transit the Strait of Malacca. The narrow waterway is seen as a potential choke-point for gas and crude oil shipped from the Gulf.

Gas imports are intertwined with political dynamics and pipeline planners are already plotting routes for Iranian gas to move eastwards to China. Such a movement, which would require a tie-in with the Turkmenistan gas

pipeline, is by no means certain.

The role of seaborne gas transport will grow for China, through a combination of straightforward supply contracts and investments in future gas production where the output will be moved as LNG.

The IEA notes: "China is already less dependent on the Malacca Strait for its LNG supplies than for oil, as the majority of LNG shipments (based on existing and future contracts) would still come from Australia, Papua New Guinea, Indonesia and Malaysia."

The IEA details long-term supply contracts now in place – with China National Offshore Oil Company (CNOOC) looming large. It has major import deals, to 2030 and beyond, that will eventually total 28Bn m³/year.



China's long-term LNG contracts

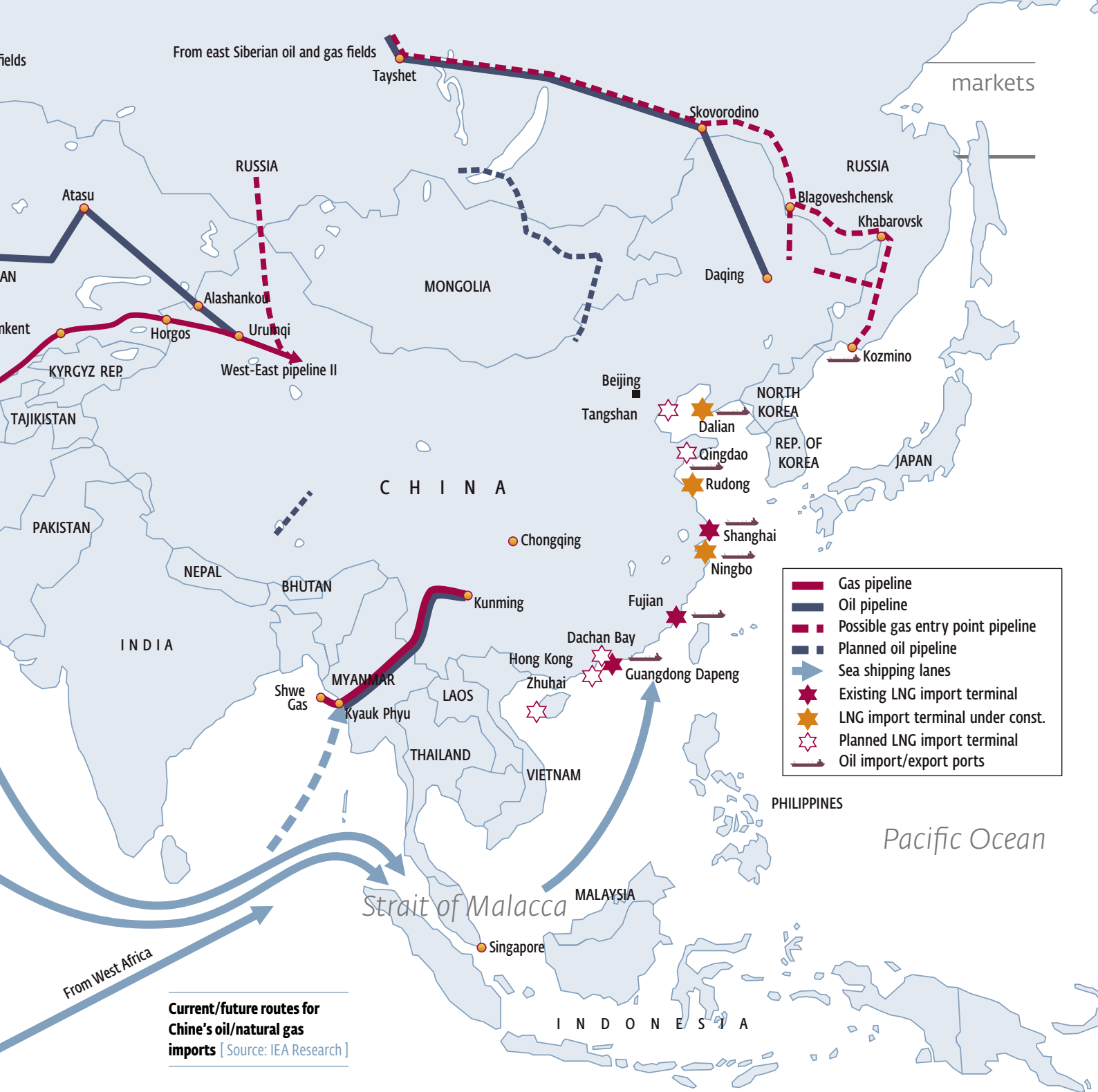
SPA= Sales and purchase agreement [Source: IEA (2010)]

Buyer/supplier	Volume (Bn m ³ /year)	Duration	Status
CNOOC	28.0		
NWS, Australia	4.5	2006-30	Delivery from May 06
Tangguh, Indonesia	3.5	2008-32	Delivery from July 09
Malaysia Tiga	4.1	2009-33	Delivery from Oct 09
Qatargas	2.7	2009-33	Delivery from Oct 09
Total	1.4	2010-24	SPA in Jan 09
Qatargas	4.1	2013-na	MoU in Nov 09
Qatargas	2.7		Discussion from Nov 09
Queensland Curtis LNG, Australia	5.0	2014-33	SPA in March 2010
North Phase, Iran	n/a	20 years	Ongoing negotiations
PetroChina (CNPC)	12.7		
Qatargas	2.7	1H10	MoU in Nov 09
Qatargas IV	4.1	2012-35	SPA in April 2008
Shell, Gorgon, Aus	2.7	2014-33	SPA in November 08
ExxonMobil, Gorgon, Aus	3.1	2014-33	SPA in Aug 09
Woodside, Browse, Aus	2.7-4.1	15-20 years	Cancelled in 09
Sinopec	2.7		
PNG LNG	2.7	2014-34	SPA in Dec 09
BG	1.4	2013-	Cancelled June 08

Suppliers include the Woodside-operated Northwest Shelf, Australia (4.5Bn m³/year), from which deliveries began in 2004; Malaysia Tiga (4.1Bn m³/year) which began supplies in late 2009; and Tangguh, Indonesia (3.5Bn m³/year).

Qatargas is another important supplier, even though its cargoes transit the Strait of Malacca. Shipments began in October 2009 under a 2.7Bn m³/year supply agreement, with a memorandum of understanding for another 4.1Bn m³/year signed two months later. CNOOC signed a 5Bn m³/year deal with Queensland Curtis LNG in March 2010, with shipments set to begin from a terminal near Gladstone in 2014.

PetroChina (part of China National Petroleum Corp, or CNPC) is also playing an important role, bringing LNG into



Current/future routes for China's oil/natural gas imports [Source: IEA Research]

China, having agreed a deal with Qatargas (2.7Bn m³/year, beginning 2010) and Qatargas IV (4.1Bn m³/year, from 2012). CNPC will also be importing gas from the Gorgon Field off northwest Australia, with off-take from both Exxon Mobil (3.1Bn m³/year) and Shell (2.7Bn m³/year).

The role of the Chinese NOCs extends well beyond the flange. Rather than just receiving cargo, the companies have made

substantial investments in suppliers since 2003, when CNOOC took on BP's 16.9% interest in the Tangguh gas field in a \$340M deal. The IEA authors view such deals as part of a Chinese strategy to gain experience in liquefaction. More recently, the Chinese companies have partnered with NOCs in resource-rich areas to develop both oil and gas fields.

The IEA report details

agreements and memoranda of understanding where Chinese oil companies are likely to invest substantial sums. Included in this list is a production sharing agreement between PetroChina (part of CNPC) and Qatar Petroleum for joint development of natural gas fields in Qatar's Block D, with Shell as the fields' operator. CNPC is playing a key role in another deal under discussion, buying gas from Iran's

South Pars Field, in the shallow waters of the Gulf.

China's gas demand has the potential to drive technology as well. Very large floating LNG production facilities are on the drawing board for Australian waters. If these projects move ahead, they will probably do so with support from Chinese buyers and financiers – if not their actual investment in the facilities themselves. [E](#)