

Natural Gas

# How will shipping cash in on the 'Golden Age' of gas?

Recent reports have highlighted the movement of cargoes to meet the industry's expected boom in demand



BARRY PARKER — NEW YORK

IN THE past few months, policy analysts and economists have looked increasingly favourably on the prospects for natural gas as a fuel source.

A special report, part of the World Energy Outlook, published in early June by the Paris-based International Energy Agency, revises previous forecasting scenarios. Its authors suggest that, under a new set of assumptions, "...from 2010, gas use will rise by more than 50% and account for over 25% of energy demand in 2035 — surely a prospect to designate The Golden Age of Gas". The IEA economists are predicting that, under the new scenario, oil will still be the dominant fuel in 2035, but with gas closing the gap rapidly.

Others have also run through the same forecasting gauntlet. Several months ago, prior to the nuclear accident in Japan, researchers at ExxonMobil, publishing their report The Outlook for Energy: A View to 2030, had peered into the future and seen gas eclipsing coal for the second place slot in the energy demand leagues five years earlier than the IEA. The oil giant's researchers, deconstructing 2030's forecast energy usage of 636 "quads" (quadrillion British thermal units), saw oil providing 204 quads, gas providing 164 quads, or 26% of demand, and coal 134 quads.

The Energy Information Administration, a part of the US Department of Energy, has also taken a long term view, but foresees a less optimistic future for gas. In its summer of 2010 International Energy Outlook, due to be revised next month, its low case forecast pegged 2030 overall energy demand at 640 quads with gas providing



An LNG carrier at the Bontang LNG plant, Indonesia: an EIA report offers a positive view of the LNG seaborne transport sector.

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147 quads, or 23%. In its high case, 22% of overall demand at 737 quads, or 163 quads, is satisfied by natural gas. In both the low and high cases, coal ranks second behind "liquids" — which is crude oil — in

2030, a contrast to the IEA and ExxonMobil analyses in which gas eclipses coal in second position. The EIA's 2011 update is scheduled to be released in July.

Of these reports, only the analysis by the IEA addresses questions of liquefied natural gas movements going forward. According to the IEA report's explanation of the new assumptions on market development between 2010 and 2035, dubbed the GAS scenario: "Trade between the main world regions more than doubles, with the increase of around 620bn cu m evenly split between pipeline gas and LNG. In the GAS scenario, the gas glut, as defined in (a previous scenario), dissipates before 2015." In the previous scenario, supply and demand moved into a normal balance around 2020.

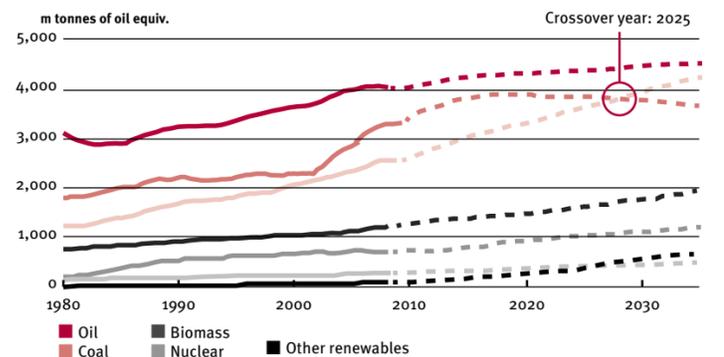
This report is really about the longer term outlook. For shipping, the IEA paper offers a further positive for the LNG seaborne transport sector, with overall gas trade between origins and destinations within major World Economic

Organisation regions growing to over 1trn cu m by 2035. The IEA economists estimate, over the 2010-2035 period, "...inter-regional trade in the form of LNG increasing by around 290bn cu m, with LNG holding about a 50% share of overall trade by 2035". Conversion arithmetic (where each 1bn cu m equates to 1.4m tonnes of LNG) puts the total forecast LNG trades in 2035 at more than 800m tonnes.

Not surprisingly, forecasts suggest that, by 2035, "China becomes the world's largest LNG importer, absorbing one-third of global LNG supply". The 330bn cu m anticipated Chinese demand in 2035, up from 20bn cu m in 2010, equates to nearly 450m tons. Even in the short term, the IEA says: "There is an urgent need to invest in LNG capacity in some regions." China's import trajectory through 2015 to an estimated 110bn cu m, half LNG, "...highlights the need to rapidly create the import infrastructure and secure sufficient supply contracts". Even though China builds up its own production of unconventional (shale) gas and its pipeline imports from central Asia and the Caspian region, the IEA authors see China as diversifying its base of LNG suppliers to include Australia, but also farther afield in the Middle East and Africa. ■

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## WORLD PRIMARY ENERGY DEMAND BY FUEL IN THE GAS SCENARIO



Source: OECD/IEA report: The Golden Age of Gas 2011

## China concern over Malacca transit shipment reliance

AN IEA information paper in February of this year titled Overseas Investments by Chinese National Oil Companies emphasised the Chinese concerns about relying on shipments transiting the Malacca Strait, writes Barry Parker.

Qatar has already gained a foothold in supplying both China National Offshore Oil Corporation and PetroChina, part of the China National Petroleum Corporation. According to this paper, CNOOC has one sale and purchase agreement in place with Qatargas in which 2.7 bn cu m per year are delivered; one beginning in 2013 for 4.1bn cu m per year; and another under discussion. PetroChina has a deal with Qatargas for 2.7bn cu m already in place and one with Qatargas IV, for 4.1bn cu m, set to begin in

2012. Tellingly, CNOOC's earliest LNG deal, which began in 2006 and extends to 2030, is with Northwest Shelf in Australia, under which 4.5bn cu m moves into Guangdong.

In the GAS scenario, in the just-released report, Asian OECD countries' 2010 gas imports of 130bn cu m move to 18bn cu m in 2035; near term increases are focused on Japan, while "...growth in India's total demand is skewed to after 2020". During the period out to 2035, the IEA sees India becoming a gas major importer at 100bn cu m per year, or some 40% of its gas supply. One highlight of the report is the importance of Africa, where gas exports of LNG, by tanker, eclipse LNG movements from the Middle East some time after 2020. In spite of massive gas production from shale, North Amer-

ica is forecast to remain a marginal gas importer through 2035.

Pricing of gas is intertwined with the future movements of gas, both by pipeline, and in LNG tankers. The issues are highly complex, influenced by regional economics and politics. North American prices, reflecting supply and demand at Henry Hub in Louisiana, have been bifurcated from world markets in which prices in Asia have traditionally been linked to crude oil, in longer term contracts, while European pricing offers a mix of gas pricing. Implicit in the IEA analysis is the view that spot markets in LNG cargoes — and hence, spot shipping — can develop where gas prices are decoupled from oil prices. Over time, out to 2035, the IEA looks for "convergence" between vari-

ous gas pricing schemes; as this happens, the LNG trades would play a central role in realising this giant arbitrage.

However, there is far more involved than just moving a cargo from Point A to Point B. The IEA notes that movement away from oil indexed gas pricing, towards "gas to gas" pricing, is tied to the supply overhang — the "gas glut" which exerts downward pressure on prices. The IEA points out that gas prices must support the cost of new "infrastructure", a category which usually includes tankers. One commentator, at the Financial Times, cautioned that a great deal of inertia surrounds the present oil indexed gas pricing schemes, saying that "convergence" was desirable, but that the "Golden age of gas may be a call too soon". ■

## Short term: how high is high for time charter rates?

IN RECENT months, the sector has benefited from the short term trade disruptions, most notably incremental demand into Japan. Fearnleys, assessed the market for 138,000 cu m-145,000 cu m vessels at \$85,000 per day east of Suez to \$87,000 per day west of Suez, levels which have been climbing steadily throughout the year from around \$60,000 per day six months ago, writes Barry Parker.

On a time charter of one year, the Oslo broker was estimating a daily hire of \$90,000 per day versus \$70,000 at the turn of the year.

One company clearly sold on the LNG story is Stenabulk, which, in late May, announced a purchase of three ice class vessels from TMT for an aggregate \$660m. One 147,000 cu m vessel built at Daewoo in 2006 comes with a two-year charter to Gazprom; the other two, both of 173,000 cu m with a price pegged at around \$250m each, are being delivered from Daewoo, with July readiness. Stenabulk chartering executive Ulf Ryder had initially suggested that the two unchartered vessels could command daily hires of at least \$100,000. In subsequent interviews, Mr Ryder was reported to have been looking for levels \$120,000-\$150,000 per day, basis a two-year time charter.

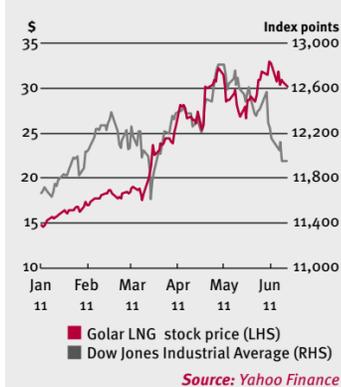
Investors have climbed on board, as well. At a time when overall stock markets have been slipping, shares in Golar LNG have more than doubled since the beginning of 2011. Its spin-off entity, Golar LNG Partners, owning conventional LNG carriers and Golar's growing fleet of floating storage, regasification and unloading units on multi-year charters to support distributions to partners, saw an initial boost from its early April IPO price at \$23.50 per unit to around \$27.00 per unit. However, the price has remained at that level.

Leif Hoegh and Company, a long-time player in the LNG trades, will be taking advantage of the buoyant market to float off a portion of its offshoot Hoegh LNG Holdings. Hoegh plans to list the new company, seeking a dominant position in the burgeoning market for FSRUs, on the Oslo Stock Exchange. As the book-building process begins, it plans to raise Nkr810m-Nkr945m (\$150m-\$175m), with an end-June listing.

Hoegh LNG has already gained a strong foothold in the FSRU business, with two 145,000 cu m Samsung-built vessels on charter to GDF Suez. A recent filing by the company describes the vessels' trading patterns: "While GDF Suez Neptune during the quarter has delivered cargoes to Boston, GDF Suez Cape Ann has delivered cargoes from the Idku terminal in Egypt to the Izmir terminal in Turkey." In April, Hoegh LNG signed a letter of intent with Hyundai to build two vessels, of 170,000 cu m capacity, with additional options. The IPO proceeds are slated to fund construction of the first two ships.

The ships are not being built against contracts. According to Hoegh, multiple projects for FSRUs are on the horizon, including PGN's FSRU, mooring and pipeline project in North Sumatra, Indonesia, and Petrobras' VT-3 FSRU project in Brazil. ■

## GOLAR LNG VS. BROADER MARKET



Source: Yahoo Finance