

## Long-Term Freight Rate Rises For The LPG Carrier Fleet

The world LPG carrier fleet is forecast to expand from 14.5m cu.m at the beginning of 2005 to 24.6m cu.m by 2015. World seaborne LPG trade (including ammonia and petchems) is forecast to increase from 73mt to 132mt over the same period.

These are some of the findings in the new detailed report – entitled **'LPG Carriers: Market Prospects to 2015'** – which analyses the current and historical developments within the LPG carrier sector and examines the prospects for trade and fleet development under alternative scenarios, presenting detailed forecasts for trade volumes, fleet requirements and freight rates through to 2015.

The following highlights some of the findings of the Report:-

### **World LPG Fleet Development to 2005**

- The world LPG fleet was estimated at 14.5m cubic metres (cu.m) at the beginning of 2005, made up of 990 vessels dominated by the VLGC sector which accounts for 57% of fleet capacity.
- By mid 2005, the LPG carrier **orderbook** totalled approximately 3.6m cu.m (88) vessels, equivalent to 24% of the current fleet capacity.
- **South Korean** yards dominate the LPG carrier newbuilding market with 76% of the orderbook. **Japanese** yards account for 17% of the newbuilding fleet capacity.

### **World LPG Production & Consumption**

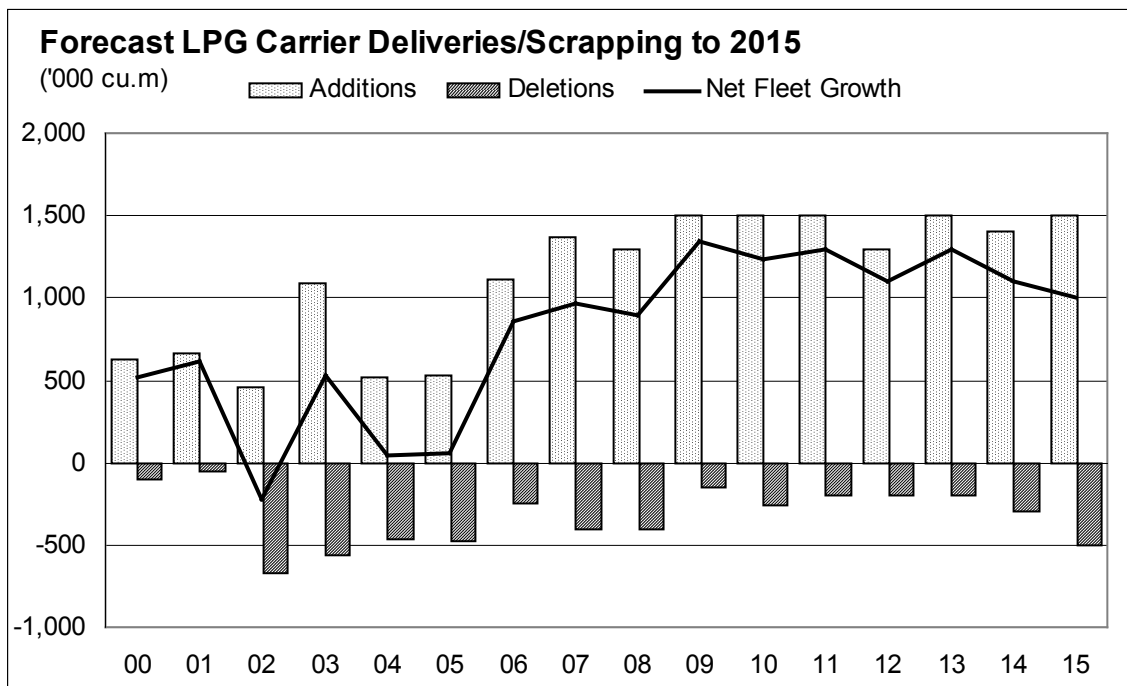
- Total **seaborne LPG trade** was approximately 48m tonnes during 2004.

- The transportation of **ammonia** accounts for approximately 1 in 5 cargoes carried by gas carriers and is particularly important to the LGC and MGC sectors and accounted for approximately 15m tonnes of seaborne trade in 2004.
- The four main **petrochemicals** are:
  - **Ethylene**    • **Propylene**    • **Butadiene**    • **VCM**

These accounted for approximately 10m tonnes of seaborne trade in 2004.

### LPG Carrier Freight Rates & Costs – Recent Developments

- Average **1-Year Time Charter Rates** for VLGCs climbed from \$0.58m/month in 2003 to \$1.1m/month by the end of 2004. The start of 2005 was quiet, but demand stayed strong and vessel availability continued to be restricted.
- **Newbuilding prices** strengthened significantly during 2004, and continued to rise during 2005, with VLGC prices averaging over \$82m during 2004, with reports of some vessels reaching \$90m during the start of 2005.
- **Secondhand prices** based on 10-year old vessels show that VLGC prices have increased from the lows of 2002 at \$39.2m to \$48.0m currently. The smaller vessels have increased more in value over recent years.



Source: OSC

- Aggregate annual LPG carrier **Operating Costs** approximate US\$2.0-2.9m across the classes, linked to vessel size.

### LPG Production & Consumption to 2015

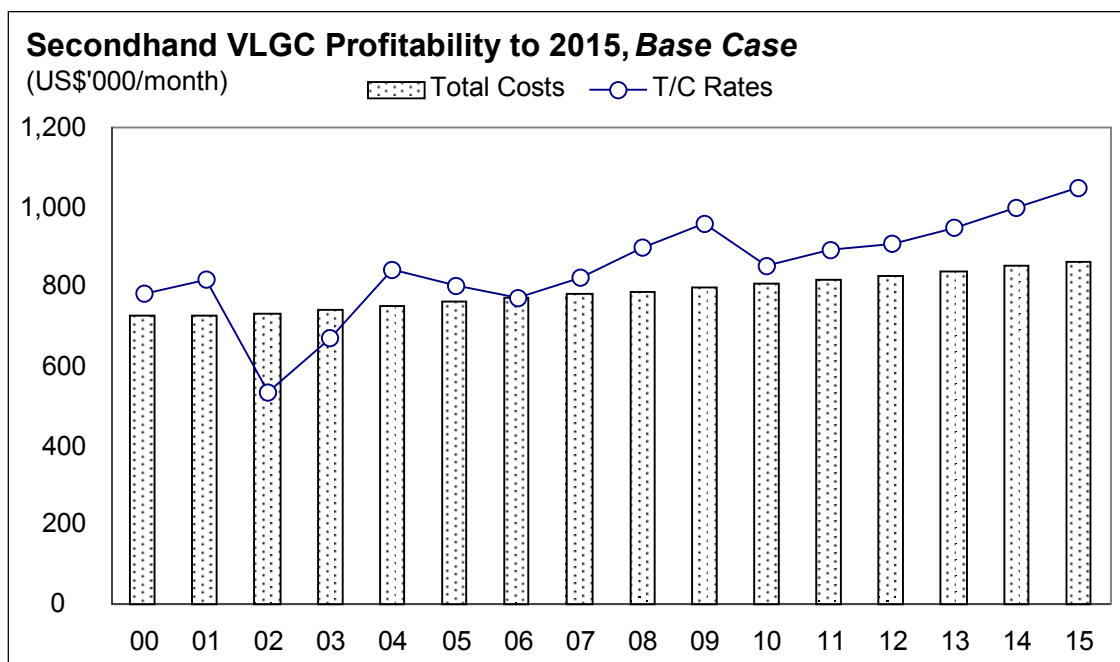
- **Seaborne LPG** trade is forecast to increase from 48m tonnes in 2004 to 68m tonnes by 2010 and to 96m tonnes by the end of the study period.
- **Seaborne ammonia** trade is forecast to grow from approximately 15m tonnes in 2004 to 18.2m tonnes in 2010 and increase to 21m tonnes by 2015.
- **Seaborne petrochemical** trade is forecast to rise from 10m tonnes in 2004 to 13.2m tonnes by 2010 and to 15.5m tonnes by 2015.

### LPG Fleet Development to 2015

The LPG fleet is forecast to grow from 14.5m cu.m to 18.6m cu.m by 2010 and expand to 24.6m cu.m by 2015. The VLGC sector is set to witness the largest growth, with capacity rising by 82%, from 8.3m cu.m to over 15.0m cu.m.

### LPG Carrier Freight Rates & Costs to 2015

- **1-year time charter rates** for VLGCs are forecast to fall in the near-term, but recover by 2009. There is likely to be a market 'correction' around 2010, followed by a fall in rates with a subsequent recovery, with freight rates reaching US\$1.0m/month by 2015.



Source: OSC

- **1-year time charter rates** for **LGCs** are forecast to follow a sustained period of rate rises followed by a fall in rates around 2010. Thereafter rates are set to rise and reach US\$0.85m/month by 2015.
- **1-year time charter rates** for the smaller **MGCs** will follow a similar pattern to the larger vessels with a rise in rates through to 2009, followed by a decline, then sustained growth to US\$0.75m/month by the end of the study period.
- The outlook for LPG vessel **operating costs** is one of escalation, with a forecast increase of approximately 22% through to 2010, for each of the vessel sizes, followed by a further 19% rise by 2015, causing:
  - **VLGC operating costs** to increase to US\$4.17m p.a.,
  - **LGC operating costs** rising to US\$3.73m p.a.
  - **MGC operating costs** increasing to US\$3.29m p.a. by 2015.
- **Operating profits** are forecast to fluctuate with freight rates causing **VLGC** operating profits to rise to US\$0.70m/month, **LGCs** operating profits rising to US\$0.54m/month and **MGCs** operating profits increasing to US\$0.48m/month by 2015.
- **Total profitability** (i.e. T/C revenues less operating costs and capital costs) for a 10-year old **Secondhand VLGC** (purchased 1Q 2005 for US\$48m), is forecast to increase to US\$188,000/month by 2015.
- **LPG Newbuilding Profitability** - with current freight rates declining slightly, albeit from a very high position, vessels that have been ordered recently at record high prices are set to struggle to cover total costs after delivery.

The new Report contains highly detailed and extensive analysis on all aspects of the LPG carrier sector. With detailed forecasts of developments throughout the period to 2015, the Report is essential reading for all parties with an interest in the future development of any aspect of the gas shipping sector.

### **'LPG Carriers: Market Prospects to 2015'**

Available: 24th August 2005

Price: £850, €1,250 or US\$1,600 – for printed or electronic (PDF) version.

Price: £995, €1,450, or US\$1,850 for printed and electronic (PDF) versions.

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