**For information**

**LEGISLATIVE COUNCIL**
**PANEL ON TRANSPORT**

**Operation of Dedicated LPG Filling Stations and Pricing Adjustment Mechanism**

## PURPOSE

Further to our information paper to the meeting of the Panel on 16 December 2005, this paper reports on actions taken to improve the operations of dedicated LPG filling stations and the Government's plan to implement monthly LPG ceiling price adjustment mechanism with effect from 1 February 2006.

## BACKGROUND

2. At the Panel meeting on 16 December 2005, we briefed members on the operations of dedicated LPG filling stations, the recent happenings and interim measures taken. Details are set out in LC Paper No. CB(1)503/05-06(3).

3. The cause of queuing of LPG vehicles at dedicated LPG filling stations was due to the time-lagging effect of LPG ceiling prices of dedicated LPG filling stations. As prescribed under the Design, Build and Operate (DBO) contracts between the operators and the Government, LPG ceiling prices at dedicated LPG filling stations are adjusted every six months. Owing to the recent surge of LPG international price, about 74% of LPG vehicles are refilled at the twelve dedicated LPG filling stations while the remaining 26% of vehicles are refilled at the 41 non-dedicated LPG filling stations.

4. The skewed balance between supply and demand has brought substantial pressure on the LPG filling facilities at dedicated LPG filling stations, especially those operated by the China Resources Petrochems (Group) Co. Ltd. (CRC) as the LPG pump prices at their dedicated stations are the lowest among all LPG filling stations in Hong Kong. Its seven dedicated stations are now serving 46% of LPG vehicles in Hong Kong and are supplying up to 15,000 fillings a day despite their original designed capacity to support

about 10,000 LPG vehicle fillings per day (see **Annex A**). Their LPG road tanker fleet, their oil terminal at Tsing Yi and even their LPG supply chain are being stretched to the limit. The same applies to ECO Energy Co. Ltd. (ECO) but to a lesser extent.

5. At the Transport Panel meeting on 16 December 2005, the Administration undertook to liaise with the operators to maintain LPG supply and improve their service level as much as practicable for the time being, and informed Members that the Administration plans to resolve the issue in the long term by revising the current LPG ceiling price adjustment mechanism for dedicated LPG filling stations.

## ACTIONS TAKEN

6. Subsequent to the Panel meeting on 16 December 2005, Government had liaised with CRC and ECO with a view to ensuring a reasonable level of LPG filling service to meet the needs of the LPG vehicle trades. Despite the prevailing constraints, both CRC and ECO undertook to do their best to deploy as many as possible of their filling nozzles at dedicated LPG filling stations, and in any case not less than 70% during busy hours, with a view to minimising the queuing time for LPG vehicles. Both companies will also increase their LPG road tanker delivery frequency to dedicated LPG filling stations subject to safety and maintenance requirements.

7. We will continue to closely monitor the operation of dedicated LPG stations in accordance with the terms and conditions of the DBO contracts. Given the prevailing situation, we will continue to scrutinise the supply chain logistics of the two operators. EMSD’s 24-hour hotline will continue to operate to solicit feedback from the LPG vehicle trades as well as to ensure timely intervention in case of need.

8. Apart from the aforementioned measures, quarterly customer liaison meetings among representatives of the LPG vehicle trades and the two operators will be conducted to foster communication and understanding between the two sides. Electrical and Mechanical Services Department (EMSD), Environmental Protection Department (EPD) and Transport Department (TD) will be represented at these meetings to gather feedbacks and suggestions.

## REVIEW OF PRICING ADJUSTMENT MECHANISM

9. Under the DBO contracts for the dedicated LPG filling stations, a LPG pricing formula determines the LPG ceiling price (P) for dedicated LPG filling stations which comprises two elements, namely the LPG international price (A) and LPG operating price (B) as follows –

$$P = A + B$$

10. The LPG international price (A) is a pass-through element while the operating price (B) was submitted by the bidders during the tender stage. At the time of introduction of the Pricing Formula, the adjustment period of the LPG international price (A) was set at half-yearly interval. The LPG operating price (B), which in fact is the proposed operating cost plus profit margin of the contractor, is also fixed throughout the 21-year contractual period, subject to yearly adjustment according to the movement of the Composite Consumer Price Index. It should be noted that the LPG international price (A) had no bearing during tender evaluation. Instead, tenderers competed primarily by virtue of their proposed LPG operating price (B).

11. At **Annex B** are charts showing the movement of international LPG prices and LPG pump prices at dedicated and non-dedicated stations since the introduction of the Pricing Formula for dedicated LPG filling stations in November 2000. It should be noted that the Pricing Formula which caps the LPG prices at dedicated stations has restrained prices hikes at non-dedicated stations –

(a) the differential between prices at non-dedicated stations and international prices was \$1.90/L in November 2000. The differential has narrowed to \$0.97/L (-51%) in December 2005 though international prices has increased by 55% from \$1.48/L to 2.30/L during the same period; and

| | November 2000 | December 2005 |
|---|---|---|
| Average LPG Pump Price at Non-dedicated Stations | **\$3.38/L** | **\$3.27/L** |
| LPG International Price | \$1.48/L | \$2.30/L |
| Price Differential | \$1.90/L | \$0.97/L |

(b) had the price differential (at 228%) between international prices and prices at non-dedicated stations been maintained as at November 2000 without the introduction of dedicated stations, prices at non-dedicated stations could have gone up to $5.25/L in December 2005.

12. At the time when the LPG Taxi Scheme was introduced in 1999, there was no precedent of prior DBO contracts for LPG filling stations. The DBO contract has therefore included a provision that a review of the Pricing Formula shall be conducted at five-yearly intervals. The pricing review mechanism was included in the tender document and was highlighted during the tender briefing to potential bidders during the tender exercise.

13. Right from the beginning of the review process, a joint departmental Working Group comprises representatives of EMSD, EPD, TD and Census and Statistics Department (C&SD) was set up to examine the issue. As regards the adjustment frequency of the Pricing Formula, legal advice confirmed that the change of review frequency from half-yearly to monthly is in order. The joint departmental Working Group also considered that if the revision is to be carried out in batches for the twelve dedicated LPG filling stations, the queuing of LPG vehicles would worsen at the remaining stations. Legal advice confirmed that subject to agreement between the operators and Government, the revised LPG ceiling price adjustment mechanism can be applied to all the twelve dedicated LPG filling stations at the same time.

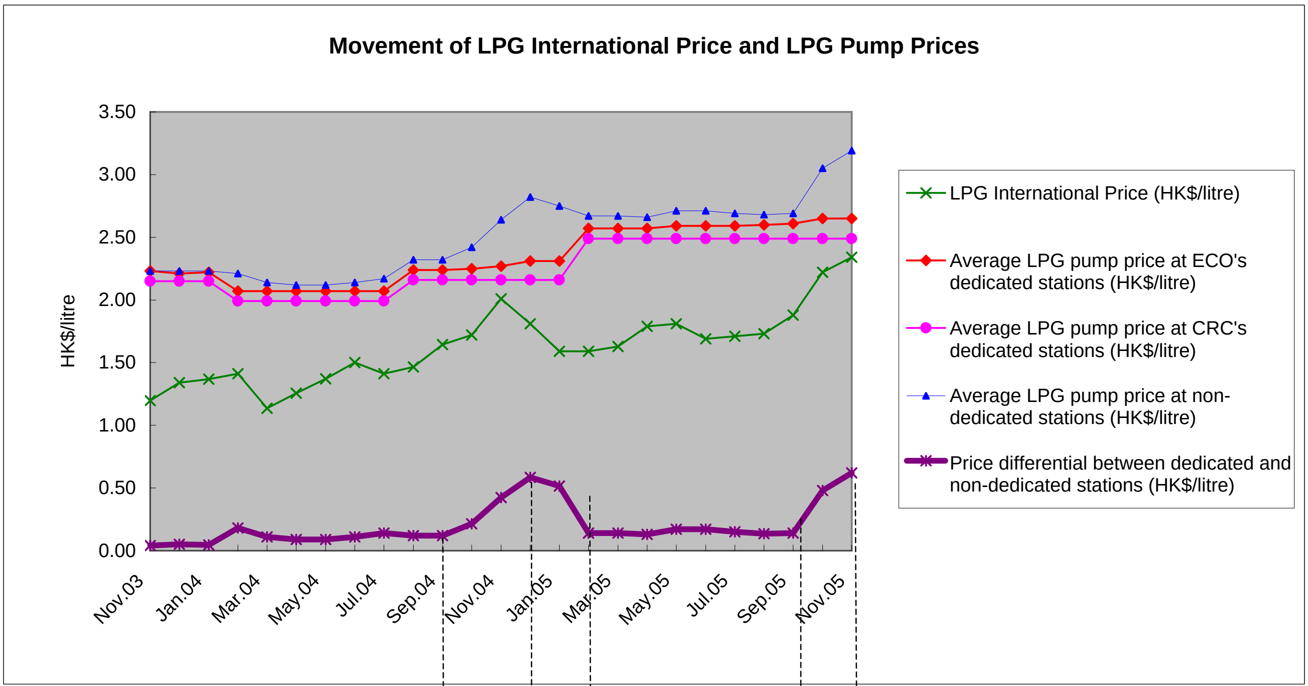
14. As the queuing of LPG vehicles at dedicated LPG filling stations is caused by the time-lagging effect of LPG pump prices at times of great fluctuation of LPG international price, the working group considered it necessary to timely reflect the movement of LPG international price into the LPG pump price of dedicated LPG filling stations. As such, it is fair and reasonable to revise the adjustment frequency of the LPG ceiling price from half-yearly to monthly, with reference to the LPG international price for the preceding month.

15. The LPG ceiling price under the revised mechanism will follow closely the movement of LPG international price. The revised LPG ceiling price adjustment mechanism is cost neutral to the users in the long run and helps strike a better balance between supply and demand at dedicated and non-dedicated LPG filling stations.

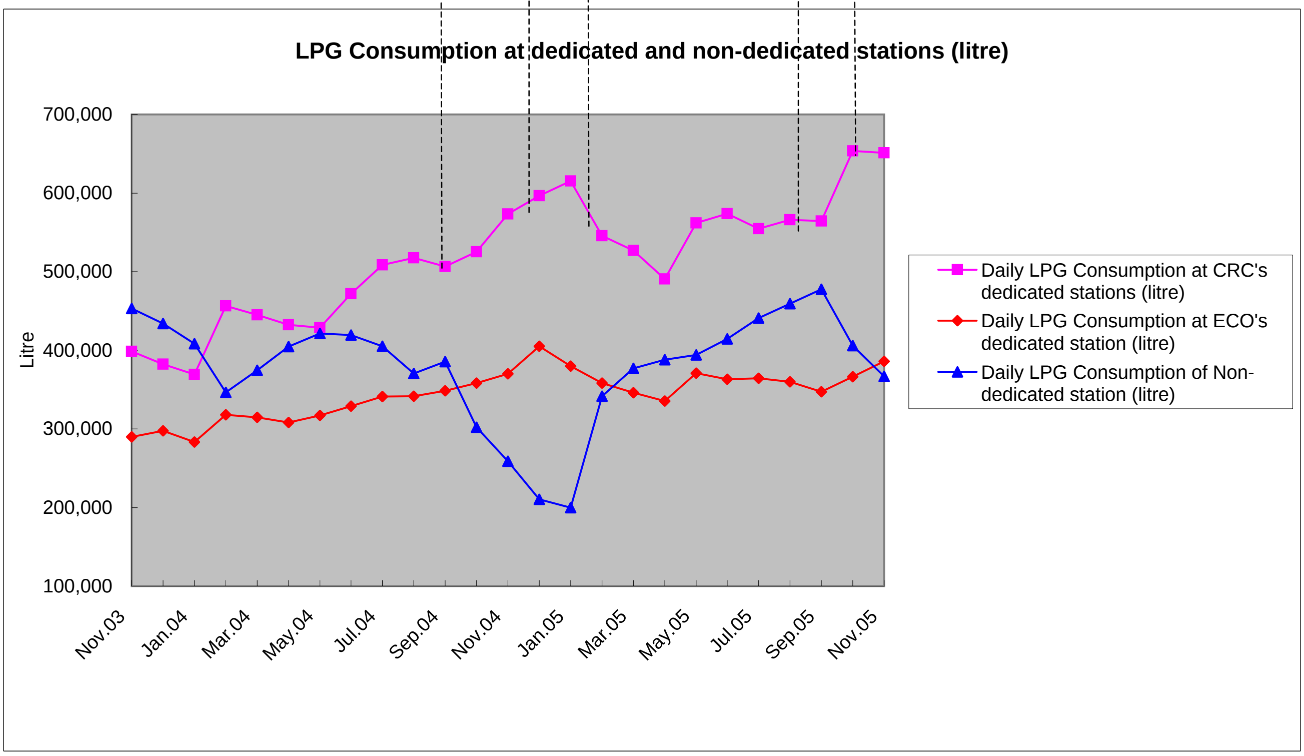
16. The prevailing problem of queuing at dedicated LPG filling stations could only be mitigated but not resolved given the design capacity limit of the LPG supply chains. Accordingly to the DBO contracts currently in force, 1 February 2006 is the due date when the next half-yearly adjustment of LPG ceiling prices will be implemented. Hence we plan to implement the monthly LPG ceiling price adjustment mechanism with effect from 1 February 2006. We have explained the rationale of the new adjustment mechanism to the taxi and light bus trades. They have indicated no objection to the implementation of the revised adjustment mechanism with effect from 1 February 2006.

**Electrical and Mechanical Services Department**
**31 December 2005**

# Annex A



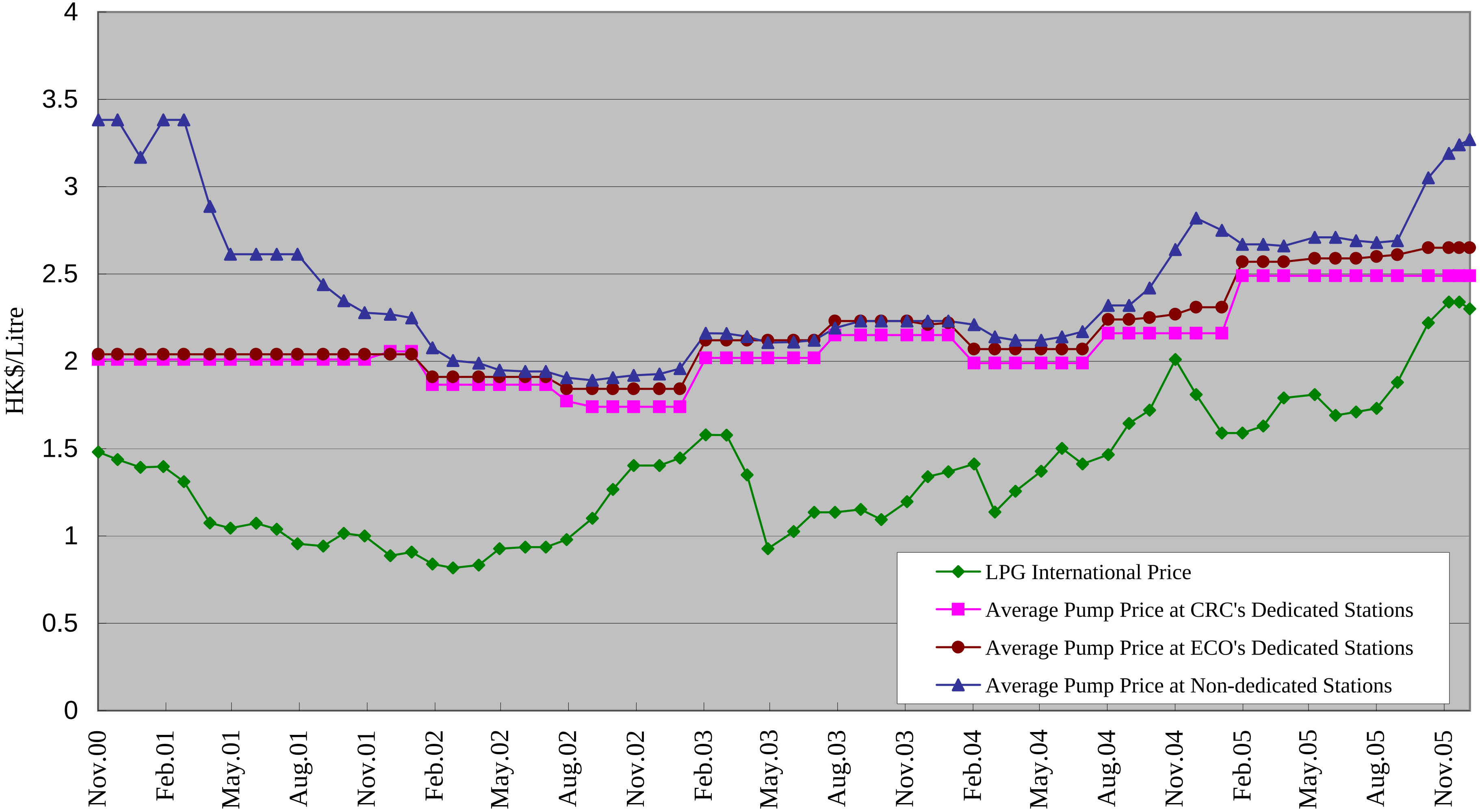
Movement of LPG International Price and LPG Pump Prices
HK$/litre
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Nov.03
Jan.04
Mar.04
May.04
Jul.04
Sep.04
Nov.04
Jan.05
Mar.05
May.05
Jul.05
Sep.05
Nov.05
LPG International Price (HK$/litre)
Average LPG pump price at ECO's dedicated stations (HK$/litre)
Average LPG pump price at CRC's dedicated stations (HK$/litre)
Average LPG pump price at non-dedicated stations (HK$/litre)
Price differential between dedicated and non-dedicated stations (HK$/litre)

LPG Consumption at dedicated and non-dedicated stations (litre)
Litre
700,000
600,000
500,000
400,000
300,000
200,000
100,000
Nov.03
Jan.04
Mar.04
May.04
Jul.04
Sep.04
Nov.04
Jan.05
Mar.05
May.05
Jul.05
Sep.05
Nov.05
Daily LPG Consumption at CRC's dedicated stations (litre)
Daily LPG Consumption at ECO's dedicated station (litre)
Daily LPG Consumption of Non-dedicated station (litre)

**Annex B**

# Movement of LPG Pump Prices



| | International Price (HK$/Litre) | Average Pump Price at CRC's Dedicated Stations (HK$/Litre) | Average Pump Price at ECO's Dedicated Stations (HK$/Litre) | Average Pump Price at Non-dedicated Stations (HK$/Litre) | Average Pump Price at Dedicated Stations |
|---|---|---|---|---|---|
| 5.Nov.00 | 1.48 | 2.01 | 2.04 | 3.38 | 2.03 |
| 1.Dec.00 | 1.44 | 2.01 | 2.04 | 3.38 | 2.03 |
| 1.Jan.01 | 1.39 | 2.01 | 2.04 | 3.17 | 2.03 |
| 1.Feb.01 | 1.40 | 2.01 | 2.04 | 3.38 | 2.03 |
| 1.Mar.01 | 1.31 | 2.01 | 2.04 | 3.38 | 2.03 |
| 5.Apr.01 | 1.08 | 2.01 | 2.04 | 2.89 | 2.03 |
| 3.May.01 | 1.05 | 2.01 | 2.04 | 2.61 | 2.03 |
| 7.Jun.01 | 1.07 | 2.01 | 2.04 | 2.61 | 2.03 |
| 5.Jul.01 | 1.04 | 2.01 | 2.04 | 2.61 | 2.03 |
| 2.Aug.01 | 0.95 | 2.01 | 2.04 | 2.61 | 2.03 |
| 6.Sep.01 | 0.94 | 2.01 | 2.04 | 2.44 | 2.03 |
| 4.Oct.01 | 1.02 | 2.01 | 2.04 | 2.35 | 2.03 |
| 1.Nov.01 | 1.00 | 2.01 | 2.04 | 2.28 | 2.03 |
| 6.Dec.01 | 0.89 | 2.06 | 2.04 | 2.27 | 2.05 |
| 4.Jan.02 | 0.91 | 2.06 | 2.04 | 2.25 | 2.05 |
| 1.Feb.02 | 0.84 | 1.87 | 1.91 | 2.08 | 1.89 |
| 1.Mar.02 | 0.82 | 1.87 | 1.91 | 2.00 | 1.89 |
| 5.Apr.02 | 0.83 | 1.87 | 1.91 | 1.99 | 1.89 |
| 3.May.02 | 0.93 | 1.87 | 1.91 | 1.95 | 1.89 |
| 7.Jun.02 | 0.94 | 1.87 | 1.91 | 1.94 | 1.89 |
| 5.Jul.02 | 0.94 | 1.87 | 1.91 | 1.94 | 1.89 |
| 2.Aug.02 | 0.98 | 1.77 | 1.84 | 1.91 | 1.81 |
| 6.Sep.02 | 1.10 | 1.74 | 1.84 | 1.89 | 1.79 |
| 4.Oct.02 | 1.27 | 1.74 | 1.84 | 1.91 | 1.79 |
| 1.Nov.02 | 1.40 | 1.74 | 1.84 | 1.92 | 1.79 |
| 6.Dec.02 | 1.40 | 1.74 | 1.84 | 1.93 | 1.79 |
| 3.Jan.03 | 1.45 | 1.74 | 1.84 | 1.96 | 1.79 |
| 7.Feb.03 | 1.58 | 2.02 | 2.12 | 2.16 | 2.07 |
| 7.Mar.03 | 1.58 | 2.02 | 2.12 | 2.16 | 2.07 |
| 4.Apr.03 | 1.35 | 2.02 | 2.12 | 2.14 | 2.07 |
| 2.May.03 | 0.93 | 2.02 | 2.12 | 2.11 | 2.07 |
| 6.Jun.03 | 1.03 | 2.02 | 2.12 | 2.11 | 2.07 |
| 4.Jul.03 | 1.14 | 2.02 | 2.12 | 2.12 | 2.07 |
| 1.Aug.03 | 1.14 | 2.15 | 2.23 | 2.19 | 2.19 |
| 5.Sep.03 | 1.15 | 2.15 | 2.23 | 2.23 | 2.19 |
| 3.Oct.03 | 1.09 | 2.15 | 2.23 | 2.23 | 2.19 |
| 7.Nov.03 | 1.20 | 2.15 | 2.23 | 2.23 | 2.19 |
| 5.Dec.03 | 1.34 | 2.15 | 2.21 | 2.23 | 2.18 |
| 2.Jan.04 | 1.37 | 2.15 | 2.22 | 2.23 | 2.19 |
| 6.Feb.04 | 1.41 | 1.99 | 2.07 | 2.21 | 2.03 |
| 5.Mar.04 | 1.14 | 1.99 | 2.07 | 2.14 | 2.03 |
| 2.Apr.04 | 1.26 | 1.99 | 2.07 | 2.12 | 2.03 |
| 7.May.04 | 1.37 | 1.99 | 2.07 | 2.12 | 2.03 |
| 4.Jun.04 | 1.50 | 1.99 | 2.07 | 2.14 | 2.03 |
| 2.Jul.04 | 1.41 | 1.99 | 2.07 | 2.17 | 2.03 |
| 6.Aug.04 | 1.47 | 2.16 | 2.24 | 2.32 | 2.20 |
| 3.Sep.04 | 1.64 | 2.16 | 2.24 | 2.32 | 2.20 |
| 1.Oct.04 | 1.72 | 2.16 | 2.25 | 2.42 | 2.21 |
| 5.Nov.04 | 2.01 | 2.16 | 2.27 | 2.64 | 2.22 |
| 3.Dec.04 | 1.81 | 2.16 | 2.31 | 2.82 | 2.24 |
| 7.Jan.05 | 1.59 | 2.16 | 2.31 | 2.75 | 2.24 |
| 4.Feb.05 | 1.59 | 2.49 | 2.57 | 2.67 | 2.53 |
| 4.Mar.05 | 1.63 | 2.49 | 2.57 | 2.67 | 2.53 |
| 1.Apr.05 | 1.79 | 2.49 | 2.57 | 2.66 | 2.53 |
| 13.May.05 | 1.81 | 2.49 | 2.59 | 2.71 | 2.54 |
| 10.Jun.05 | 1.69 | 2.49 | 2.59 | 2.71 | 2.54 |
| 8.Jul.05 | 1.71 | 2.49 | 2.59 | 2.69 | 2.54 |
| 5.Aug.05 | 1.73 | 2.49 | 2.6 | 2.68 | 2.55 |
| 2.Sep.05 | 1.88 | 2.49 | 2.61 | 2.69 | 2.55 |
| 14.Oct.05 | 2.22 | 2.49 | 2.65 | 3.05 | 2.57 |
| 11.Nov.05 | 2.34 | 2.49 | 2.65 | 3.19 | 2.57 |
| 25.Nov.05 | 2.34 | 2.49 | 2.65 | 3.24 | 2.57 |
| 9.Dec.05 | 2.3 | 2.49 | 2.65 | 3.27 | 2.57 |