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2 June 2003

Miss Becky Yu  
Clerk to the LegCo Panel on  
Environmental Affairs  
LegCo Secretariat  
3/F, Citibank Tower  
Garden Road, Hong Kong

Dear Miss Yu,

**Panel on Environmental Affairs and Panel on Transport  
Meeting on 6 February 2003**

**Feasibility Study of Introducing Liquefied Petroleum Gas (LPG)  
Light Vans and Light Goods vehicles into Hong Kong**

At the joint meeting of the Panel on Environmental Affairs and Panel on Transport on 6 February 2003, Members requested the Administration to provide the following additional information:

- percentage contribution of particulate emissions by diesel light vans and light goods vehicles;
- amount of revenue loss if all diesel light vans and light goods vehicles were switched to LPG; and
- details of LPG storage and annual LPG demand.

Our responses following the order are set out below.

### **Percentage contribution of particulates by diesel light vans and light goods vehicles**

The Government has estimated that taking 1997 as the base year, the particulate emissions from diesel light vans and diesel light good vehicles contributed to about 15% and 10% of the total particulate emissions from the entire vehicle fleet in the urban areas respectively.

Since the launch of a comprehensive programme to reduce vehicle emissions in 1999, the Government has installed particulate removal devices to pre-Euro models, introduced ultra low sulphur diesel into Hong Kong, and tightened up the emission standards for newly registered vehicles to Euro III standards. Through these measures, the particulate emissions from diesel light vans and light goods vehicles in the urban areas have been greatly reduced. We estimate that they now contribute only to about 6% and 3% of the total particulate emissions from the entire vehicle fleet in Hong Kong urban areas respectively, using 1997 as the base year.

We expect that by end 2005, when more existing vehicles have been replaced by Euro III models, the total percentage contribution of particulate emissions from diesel light vans and light goods vehicles in the urban areas will be further reduced to 5% of the base year emission level. In the upcoming years, as more old model vehicles will be replaced by new vehicles meeting even more stringent emission standards, the total percentage contribution from diesel light vans and light goods vehicles will be further reduced to 3% in 2010.

### **Revenue loss incurred by replacing diesel light vans and light goods vehicles with LPG models**

If diesel light vans and light goods vehicles were switched to LPG models, the Government revenue would be reduced accordingly. The Study has estimated that in 2001, the entire fleet of diesel light vans and light goods vehicles in Hong Kong altogether consumed 199 million litres of diesel. Based on this diesel consumption quantity, the current duty on motor fuel (\$1.11 per litre for diesel; LPG is duty-free), and assuming that the entire fleet of diesel light vans and light goods vehicles would be switched to LPG models, the fuel duty foregone would be \$221 million.

## **Details of LPG storage and annual LPG demand**

The Study Report has provided details of the LPG storage capacity: the existing terminal facilities for LPG in Hong Kong have a total storage capacity of 14 700 tonnes. Taking into account constraints from the handling capacity of LPG jetty facilities, road tanker loading facilities and typhoon reserve requirements, the Study has concluded that the physical limiting throughput of the existing LPG terminals is 578 890 tonnes per year. Given that we need to reserve 472 000 tonnes of LPG per year for LPG taxis and LPG light buses as well as domestic, commercial and industrial uses, the spare throughput is only 106 890 tonnes per year.

The Study has estimated that the fleet of light vans and light goods vehicles, if switched to LPG models, would consume 231 772 tonnes of LPG in 2001. The Study has also projected that with a 2% annual growth of number of light vans and light goods vehicles, the demand for LPG would increase to 359 338 tonnes per year in 2010.

In addition to the supply constraint due to LPG storage, the Study has pointed out that inadequate LPG filling stations is another major constraint. To support light vans and light goods vehicles to use LPG, 153 additional LPG filling stations will be required. The 3-year experience in expanding the LPG filling network has demonstrated that we would not be able to get the required additional LPG filling stations.

Yours sincerely,

(CW Tse)  
for Secretary for the Environment,  
Transport and Works

cc:

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