#### 香港特別行政區政府

#### The Government of the Hong Kong Special Administrative Region

#### 政府總部 運輸及房屋局 運輸科

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# HONG KONG

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30 June 2016

Ms Macy Ng Legislative Council Complex 1 Legislative Council Road Central Hong Kong

Dear Ms Ng,

# Panel on Transport Public Engagement for Electronic Road Pricing Pilot Scheme in Central and its Adjacent Areas

#### **Supplementary Information**

As requested by the Panel on Transport, we would like to provide the following supplementary information in relation to the public engagement for the Electronic Road Pricing Pilot Scheme in Central and its adjacent areas.

Road sections in Hong Kong on which the car journey speed is less than 10 km/hour and the vehicle types involved and their relevant proportion

The Transport Department ("TD") conducts surveys of car journey speeds every year along pre-selected routes in various areas in Hong Kong<sup>1</sup>.

<sup>1</sup> 

The surveys involved the measurement of car journey time to travel along 61 routes and nine routes covering representative road sections in the territory during the morning peak hours (0800 to 0930 hours) and evening peak hours (1700 to 1900 hours) respectively on weekdays.

The road sections with car journey speeds lower than 10 km/hour during the morning and evening peak hours on weekdays from 2011 to 2015 are set out in **Annex 1**.

Regarding the proportion of the types of vehicles involved, TD is only able to provide data on certain road sections. The information is in **Annex 2**.

Figures showing the effectiveness of the implementation of Electronic Road Pricing in overseas cities

Electronic Road Pricing ("ERP") has been successfully implemented in overseas cities as an effective transport management tool to alleviate localised traffic congestion. Data showing the effectiveness of ERP schemes in Singapore, London (the United Kingdom) and Gothenburg (Sweden)<sup>2</sup> are set out below.

The ERP scheme in Singapore was implemented in 1998. After the first year of operation, the traffic volume entering the charging area during the morning peak hours reduced by 16%, and the corresponding average travelling speed increased by 26%.

London commissioned its ERP scheme in 2003. After the first year of operation, the traffic volume in the charging area during the charging period dropped by 16%. The traffic volume in the charging area continued to reduce in the following 10 years. In 2012, the traffic volume in the charging area was reduced by 25% compared to that before the commissioning of the ERP scheme.

The ERP scheme in Gothenberg was implemented in 2013. After the first year of operation, traffic volume through the charging points had decreased by 15% for the morning peak hours, and the average traffic speed had increased by 20%.

From the experiences of the above-mentioned overseas cities, to maintain the effectiveness of an ERP scheme, the charging level should be

2

<sup>&</sup>lt;sup>2</sup> The changes in traffic volumes and travelling speeds may not be solely attributable to the implementation of ERP. Other factors, such as the overall economic situation, may also be relevant.

reviewed regularly. The Singapore ERP scheme is reviewed quarterly<sup>3</sup> and the charges will be adjusted when needed. The charging level of the ERP scheme in London have been raised three times in 2005, 2011 and 2014 since its implementation in 2003, and that of the ERP scheme in Gothenberg was also increased once after its implementation in 2013.

#### Cost of implementing ERP

Regarding the cost of implementing ERP, the Government conducted a three-month public engagement exercise for the Electronic Road Pricing Pilot Scheme in Central and its Adjacent Areas ("ERP Pilot Scheme") between December 2015 and March 2016. We will engage a consultant to, based on the views received, conduct an in-depth feasibility study for the ERP Pilot Scheme. The cost of implementing the ERP Pilot scheme will depend on a number of factors, such as the size of the charging area and the choice of ERP technology, and will be estimated in the feasibility study.

Yours sincerely,

(Adrian Lam) for Secretary for Transport and Housing

c.c.

Commissioner for Transport (Attn: Mr Alfred Lam) Fax: 2802 2673

The Singapore scheme is assessed on the basis of an optimal speed range of 20 to 30 km/hour on major roads in the cordoned charging area and 45 to 65 km/hour on expressways.

#### Annex 1

## Road sections in pre-selected routes for car journey speed survey with car journey speeds lower than 10 km/hour during morning peak hours

	Dood gootion	Car journey speed (km/hour)					
	Road section	2011	2012	2013	2014 <sup>1</sup>	2015	
1.	Hillier Street (Wing Lok Street to Connaught Road Central)	7.8	7.3	5.4	5.6	5.1	
2.	Connaught Road Central Flyover (Morrison Street to Jubilee Street)	9.0	10.0	9.5	12.2	15.2	
3.	Des Voeux Road Central (Eastbound) (Cleverly Street to Pedder Street)	8.9	10.0	12.5	8.6	12.1	
4.	Chater Road (Pedder Street to Murray Road)	8.3	9.3	10.2	13.1	13.5	
5.	Des Voeux Road West (Eastbound) (Western Street to Connaught Road Central)	11.6	10.6	8.7	11.4	13.8	
6.	Chatham Road North (Southbound) (San Lau Street to Hong Chong Road)	8.9	9.6	7.1	9.1	5.7	
7.	Gascoigne Road (Eastbound) (Jordan Road to Chatham Road South)	11.3	13.6	14.3	9.9	12.3	

1

In 2014, the survey could not be conducted at certain road sections in the usual period as the traffic condition was rendered abnormal by the Occupy Movement. The survey was conducted after the end of the Occupy Movement and the average vehicular speed figures of 2014 were calibrated based on the results of the survey and historical car journey speed survey data.

## Road sections in pre-selected routes for car journey speed survey with car journey speeds lower than 10 km/hour during evening peak hours

	Dood souther	Car journey speed (km/hour)					
	Road section	2011	2012	2013	20141	2015	
1.	Connaught Road Central (Eastbound) (Des Voeux Road West to Cleverly Street)	19.6	15.7	9.2	17.6	18.9	
2.	Connaught Road Central (Westbound) (Cleverly Street to Des Voeux Road West)	9.2	15.4	7.5	8.8	8.7	
3.	Des Voeux Road Central (Eastbound) (Cleverly Street to Pedder Street)	8.9	8.7	8.5	3.6	9.5	
4.	Hennessy Road (Eastbound) (Johnston Road to Yee Wo Street)	10.8	7.0	11.0	11.4	11.3	
5.	Queen's Road Central (Garden Road to Possession Street)	9.2	11.4	9.7	10.5	9.2	
6.	Waterloo Road (Eastbound) (Ferry Street to Argyle Street)	9.7	11.9	10.7	10.9	10.3	
7.	Waterloo Road (Westbound) (Argyle Street to Ferry Street)	16.7	15.6	8.5	15.0	13.2	

## Proportion of different types of vehicles on certain road sections during morning peak hours on weekdays

	Road section		Private car	Taxi	Goods vehicle	Bus and light bus	Motor cycle
1.	Connaught Road Central	2011	46%	34%	9%	8%	3%
	Flyover (Chung King	2012	47%	33%	10%	8%	2%
	Road to Gilman Street)	2013	45%	36%	9%	8%	2%
2.	Des Voeux Road Central	2011	6%	22%	13%	59%	0%
	(Morrison Street to	2012	13%	17%	8%	62%	0%
	Queen Victoria Street)	2013	12%	10%	2%	76%	0%
3.	Chatham Road North	2011	38%	23%	18%	16%	5%
	(Wuhu Street to	2012	40%	20%	21%	14%	5%
	Hong Chong Road)	2013	46%	34%	9%	8%	3%

## Proportion of different types of vehicles on certain road sections during evening peak hours on weekdays

	Road section		Private car	Taxi	Goods vehicle	Bus and light bus	Motor cycle
1.	Connaught Road Central	2011	31%	36%	9%	22%	2%
	(Cleverly Street to	2012	39%	31%	7%	19%	4%
	Gilman Street)	2013	35%	41%	3%	17%	4%
2.	Des Voeux Road Central	2011	37%	18%	4%	39%	2%
	(Morrison Street to	2012	45%	6%	6%	43%	0%
	Queen Victoria Street)	2013	47%	11%	2%	39%	1%
3.	Queen's Road Central	2011	48%	35%	9%	8%	0%
	(Queen Victoria Street to	2012	48%	27%	12%	12%	1%
	Bonham Strand)	2013	42%	38%	7%	9%	4%
4.	Waterloo Road	2011	45%	37%	9%	7%	2%
	(Yim Po Fong Street to	2012	47%	38%	5%	9%	1%
	Pui Ching Road)	2013	47%	35%	8%	8%	2%

Note 1: "Bus and light bus" includes franchised buses, special purpose buses and public and private light buses.

Note 2: Data extracted from the Annual Traffic Census issued by the Transport Department ("TD").

Note 3: Data for 2014 are not shown as they were affected by the Occupy Movement. TD is compiling the data for 2015.