

The Promotion of Electric Vehicles in Hong Kong

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PROMOTING ELECTRIC VEHICLES THE BENEFITS

- Improving roadside air quality;
 - Vehicle tailpipe emissions Vs Stack Emissions from power plants?
 - Fuel mix of power plants?
 - I&M programme for vehicles Vs Regulatory Control for power plants?
- Reducing carbon emissions;
- Promoting green economy.



PROMOTING ELECTRIC VEHICLES

THE POLICIES AND MEASURES

KEY POLICY-RELATED EFFORTS

- Financial Secretary chairs the Steering Committee on the Promotion of EVs to provide top level policy steer
- Ultimate policy objective: zero emission buses running across the territory
- The Government has been leading by examples in using EVs
- Encouraging EV manufacturers to introduce their EVs to Hong Kong
- Dedicated website and other activities to promote the use of EVs



PROMOTING ELECTRIC VEHICLES THE POLICIES AND MEASURES TAX INCENTIVES

- First Registration Tax of EVs is waived till March 2017
- Full profits tax deduction for the capital expenditure on EVs in the first year of procurement



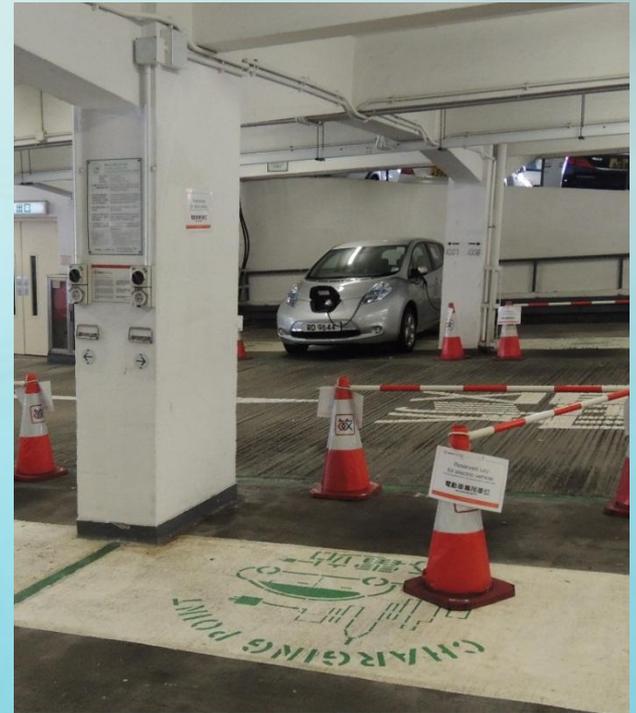
PROMOTING ELECTRIC VEHICLES THE POLICIES AND MEASURES CHARGING OF EVs

- The Government has been working with the private sector to set up EV charging facilities
- Free charging in Government car parks
- Dedicated EMSD hotline to facilitate setting up charging facilities in private development



PROMOTING ELECTRIC VEHICLES THE POLICIES AND MEASURES CHARGING OF EVs

- Car parks in new development with fixed electrical installations in place are eligible for Gross Floor Area concession (i.e. “EV charging-enabling” car parks”)
- Planning guidelines recommend 30% of car parking spaces to be installed with standard chargers



PROMOTING ELECTRIC VEHICLES THE POLICIES AND MEASURES SUBSIDIES

- A HK\$300 million Pilot Green Transport Fund was set up in March 2011 to subsidize public transport operators and goods vehicle owners to try out green innovative transport technologies including EVs
- HK\$180 million allocated for franchised bus companies to purchase 36 electric buses for trial to assess their performance under local conditions.



PROMOTING ELECTRIC VEHICLES THE OUTCOMES

- 28 EVs in 2009 to **619** in Mar 2014
- 26 EV models from 7 countries have been approved for use in HK

| | 2009 | 2014 March |
|-----------------------|------|------------|
| Private cars | 4 | 467 |
| Motorcycles | 17 | 57 |
| Buses | 2 | 6 |
| Light buses | 1 | 5 |
| Light goods vehicles | 4 | 37 |
| Medium goods vehicles | 0 | 2 |
| Taxis | 0 | 45 |
| Total | 28 | 619 |



PROMOTING ELECTRIC VEHICLES THE OUTCOMES

- HK has over 1000 standard chargers set up by public and private sectors, covering 18 districts at various types of buildings
- HK has 10 quick chargers that can top up EV battery in as quick as 30 minutes



PROMOTING ELECTRIC VEHICLES

THE OUTCOMES

- So far, 71 EVs including taxis, buses, light buses and goods vehicles approved for trial under Pilot Green Transport Fund (PGTF)
- Interim trial findings for 2 models of electric vans
 - can support a travel distance close to the travel range specified by their manufacturers
 - no sign of deterioration in their performance and batteries
 - drivers operated the vehicles well but one model was found to have insufficient power to go uphill of gradient over 8%
 - 50% to 80% savings in fuel costs



PROMOTING ELECTRIC VEHICLES THE CHALLENGES ECONOMICS

- EVs command a price premium over conventional vehicles but have a lower operating cost.
- It has uncertainty on the reliability of batteries, which is costly to replace.

➔ What is the Outlook?



PROMOTING ELECTRIC VEHICLES THE CHALLENGES VEHICLE SUPPLY

- EV models limited, especially commercial heavy duty EVs

➔ What are the solutions?



PROMOTING ELECTRIC VEHICLES THE CHALLENGES CHARGING INFRASTRUCTURE

- Cruising range for most EV models is still limited; drivers have “cruising range anxiety”
- No unified charging protocol
- EV drivers would like to have more chargers, particularly quick ones

➔ What are the solutions?



PROMOTING ELECTRIC VEHICLES CHARGING NETWORK EXPANSION PLAN

- The Government will add 100 medium-speed chargers in 2014 to shorten charging time
 - The Government will launch a trial scheme that enables e-taxi suppliers to install quick chargers (max 50) at 6 car parks administered by the Transport Department
- ➔ What is next?



PROMOTING ELECTRIC VEHICLES

- The Government will continue to promote the use of EVs.
- However, we should use public transport as far as possible instead of private cars to reduce road congestion, which can also lead to poor roadside air quality.



Thank You

