

EAC POSITION PAPER CALL TO ACTION

The European Automotive Council (EAC)
of
the European Chamber of Commerce in
Hong Kong (EuroCham)



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Introduction

The European Automotive Council (EAC) of the European Chamber of Commerce represents the European passenger car and commercial vehicle manufacturers in Hong Kong. The Council aims to bring forward proposals and be a partner to the Government of the Hong Kong Special Administrative Region of the People's Republic of China, (Hong Kong), working together towards a safer, greener, more efficient, more sustainable and more competitive automotive sector. Members of the Council are European vehicle manufacturers, their subsidiaries and/or representative offices.

This Paper expresses the common work and views of the members of the EAC and aims to lead to overall improvements in the target areas.

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1. Status Review

1.1 Recap of Positioning Papers and Meetings between Government Offices and EAC

2018

- A. Position Paper 2018
- B. Meeting with Chief Executive 21st May 2018
- C. Meeting with TD and PICO on 14th September 2018

2019

- D. Meeting with TD and EPD on 22nd January 2019
- E. Letter to HKPC in June 2019
- F. Letter to EPD in October 2019

2020

- G. Position Paper 2020
- H. White Paper - Electric Mobility and Charging infrastructure in Hong Kong
- I. Letter on 14th August 2020 to Financial Secretary and Secretary for Commerce and Economic Development regarding “White Paper - Electric Mobility and charging infrastructure”
- J. White Paper - Commercial Vehicle Road Friendly Suspension Adaptation in Hong Kong
- K. Meeting with TD on 17th July 2020
- L. Meeting with TD and Highways Department on 26th November 2020

2021

- M. Letter to Chief Executive on 2nd March 2021

1.2 Implementation Status

[Letters in brackets refer to above meetings and communications where the issue was included]

1.2.1 Future trends of the automotive industry [A,B,C,G]

- In order to make smart decisions, smart vehicles need access to information e.g. about the current traffic situation for a potential re-routing or an accident that just occurred to pre-warn vehicle and driver.

a) On-board Visual Displays

- To update regulation 37 of the Road Traffic Regulations, as well as the Legislative Regulation and Guidelines over the Installation of Visual Display Unit (TV Screen) in a Vehicle to allow modern in-vehicle displays.
- The above point would also allow the use of the VDU by commercial vehicle drivers for various purposes while stationary with parking brake applied.
- To adopt the European Commission recommendations on safe and efficient in-vehicle information and communication systems (Update of the European Statement of Principles on HMI (2008/653/EC).

b) Connectivity

- To adopt Cooperative Intelligent Transport Systems (C-ITS), 'Release 1 specifications' developed by the European Committee for Standardization (CEN) and the European Telecommunications Standards Institute (ETSI).

c) Autonomous Drive Features

- To follow the progress in the ECE and EU regulations to revise the Hong Kong Road Traffic Ordinance (Cap. 374, Part 7) in a timely fashion to reflect the latest developments.

d) Parking

- To align private and public parking prices while developing more Park & Ride facilities.

e) Commercial vehicle sensor equipment

- As a matter of urgency, to exclude certain items from the overall length and width of vehicles, so as not to restrict the speedy introduction of advanced driver assistance systems (ADAS) which will contribute greatly to increased vehicle safety on large commercial vehicles.

Status and Proposed Next Steps:

(a), (b) and (c) - Technology demonstration for relevant TD authorities and Secretary for Transport and Housing to build trust in state of the art and capabilities. Position Paper/ Call For Action Paper to serve this purpose.

(d) - HK Government to note view of EAC.

(e) - EAC request TD to take urgent action.

1.2.2. Sustainable Mobility**a) Alternative Fuels for Heavy Commercial Vehicles [A,B,C]**

- EAC wishes to open discussions on alternative fuels (bio-diesel, bio-gas. Alternative fuels are becoming commercially viable, but the Government needs to drive a change from traditional fossil fuels.

Status and Proposed Next Steps (from meeting C):

Meeting with TD, EPD and EMSD to agree on the next steps with the Government taking the lead in this area.

b) Continuation of scrapping scheme to get older vehicles off the road [A,B,C,F]

Status and Next Proposed Steps:

EAC appreciates that the Scrapping Scheme was extended and believes the Hong Kong Government has taken a good decision which will contribute to cleaner air. No further action required.

1.2.3 Public Light Buses

Proposal to allow introduction of European minibuses to Hong Kong [A,B,D,G]

- To benefit from the additional safety features on European light buses EAC proposes:
 - To relax the length requirement for PLB type approval from 7m (max) to 8m (max) if the light bus comes with front bonnet module design which is a critical safety feature.
 - To accept safety windows and emergency roof hatches as legal emergency exits to replace rear emergency door which is not available for European light bus models.
 - To allow a two-motion door opening mechanism for emergency door.
 - To accept European seat spacing requirement for European light buses type approval in order to keep the vehicle length within 7.5m for 19 seats.

Status and Proposed Next Steps:

EAC will share a business case with the CE office demonstrating the competitive total costs of ownership of European minibuses combined with a much-increased safety for their drivers and passengers and reduced emissions.

In April 2020, TD relaxed the length requirement for PLB type approval from 7m (max) to 7.5m (max) and the maximum Gross Vehicle Weight (GVW) from 5.5t to 8.5t.

In November 2020, TD sent out a general survey to registered vehicle manufacturers for collecting their opinions on TD's trade consultation for "Introduction of alternative means of emergency exits for light Buses". With this proposal, TD showed their intention to accept driver's door together with emergency window(s) and escape hatch(es) as the legal alternative means of emergency exits.

1.2.4 Utilization of heavy commercial vehicles

Increased productivity and lower emissions by using full capabilities of heavy commercial vehicles. [A,B,C,G,J,L]

- The EAC proposes allowing Road Friendly Suspension (RFS) equipped vehicles to have extra loading allowances in Hong Kong with a First Registration Tax (FRT) reduction similar to the Environmentally-Friendly Vehicles Scheme.

Status and Proposed Next Steps:

Following a positive meeting with Transport Department, the EAC has agreed to propose which specific vehicles should be focused on in a first round of weight reviews.

1.2.5 Vehicle registration data [A,B,G]

Status and Proposed Next Steps:

Registration data vastly improved. No further action.

1.2.6 Smart data exchange [C,G]

- Mr. Reginald Chan suggested EAC to reach alignment among manufacturers, both PC and CV, regarding the functions (connectivity, voice interaction) and look for establishing standards.

Status and Proposed Next Steps:

EAC will come back to TD with a proposal on how to harmonize in Hong Kong with EU standards concerning the visual display unit in the vehicle and functionalities.

Information about the VDU and examples between Hong Kong and EU standards are mentioned later in chapter 3 below.

1.2.7 Definition of warranty in FRT regulations [C]

- EAC proposes that extended warranties and maintenance contracts should not be included in the vehicle price for FRT calculation. It was concluded that this topic is the responsibility of the Financial Services and Treasury Bureau.

Status and Proposed Next Steps:

Topic was raised in a meeting with the Financial Secretary on May 5th. Financial Secretary Paul Chan promised to have a look into it, discuss it with his relevant colleagues, and come back to the ECC.

1.2.8 EV Battery Handling [H]

- EAC believes that the Government should take the lead in establishing a comprehensive legislation on retired/waste EV batteries handling process instead of setting up a voluntary Charter Scheme.
- Due to the lack of investors and of recycling facilities, the Government should provide incentives to EV owners and EV dealers/manufacturers in order to ensure all retired batteries are properly handled.
- Environment Protection Department (EPD) and/or Transport Department (TD) should setup and maintain a database on all EV/PHEV upon vehicle licensing and to provide sufficient information on owners' responsibilities when the battery is reaching the end of its lifecycle. Fixed amount incentive to be provided to EV/PHEV owners who return the retired batteries to the licensed operators for processing.
- This fixed amount of incentive given to the EV owner can support the EV owner to pay for the dismantle cost and logistic cost of the licensed operator/recycling contractor in disposing of the retired/waste EV batteries.
- For EV brands without local dealership, a fixed amount subsidy should be given by the Government to the appointed recycling contractors or car scrappers to handle the logistics costs for proceeding with the battery remanufacturing and recycling facilities overseas;
- Besides battery remanufacturing in overseas, the Government may encourage the setup of local battery re-manufacturing and recycling facilities by providing funds and incentives to potential investors in view of the foreseeable expanding EV population in Hong Kong;
- Alternatively, the Government may explore and setup channels within the Greater Bay Area (Shenzhen, Guangzhou...) where battery recycling facilities are available and to provide a centralised handling solution for the industry.

Status and Proposed Next Steps:

To be discussed in a follow up meeting with CE or EPD/TD.
EPD contact person is Seline CHIN.

1.2.9 Encourage Electric Light Commercial Vehicles [H]

- The EAC encourages the Government to formulate more policies, in addition to the Pilot Green Transport Fund, to further motivate replacement of Light Commercial Vehicles to Electric Vehicles.

Status and Next Proposed Steps:

EAC appreciates the release of official "Roadmap on Popularization of Electric Vehicles", which shows a clear roadmap and initiatives to promote electric vehicles, including electric Commercial Vehicles. EAC looks forward to cooperating in the implementation of the Roadmap.

1.2.10 Extension of Charging Infrastructure for Commercial Vehicles [H]

- The EAC encourages the Government to support or participate in charging infrastructure setup, covering industrial and other commercial vehicle operating areas including compatible charging standard / infrastructure with Mainland China to enable cross border transport by Electric Vehicles.

Status and Proposed Next Steps:

EAC appreciates the release of official “Roadmap on Popularization of Electric Vehicles”, which shows a clear roadmap and initiatives to expand charging network, including study of proposals to facilitate charging in Mainland for electric vehicles, including electric Commercial Vehicles.

EAC looks forward to cooperating in implementation of the Roadmap.

1.2.11 Increase in First Registration Tax (FRT) and License fee on private passenger cars [M]

- The key consideration of traffic congestion is a multi-faceted issue, which will not be effectively addressed by a single financial measure as FRT and license fee increase. Experiences and best practices from other markets in addressing traffic congestion and modernization of car parks do exist and can prove useful as guidance and reference for Hong Kong SAR Government.
- The new registrations in Hong Kong have been decreasing the last consecutive years from 37000 in 2017 to 27000 in 2020 by almost 30%.
- In EAC’s opinion, the sudden increase in FRT will bring further disruptions to the already suffering automotive industry while increasing risk of unwanted side-effects like incentivizing consumers to shift to lower value cars (e.g. parallel imported used cars), which could effectively mean a compromise on emission and safety levels.

Status and Proposed Next Steps:

Therefore, the EAC brings forward the request for a deferral of the proposed FRT and License fee increase on private passenger cars in the 2021 Budget.

The EAC is open and offers to work with the Government to find more effective and sustainable ways to ease traffic congestion.

2. Technology Outlook

2.1 Introduction

Over the last 20 years, approximately 15,000 accidents were reported every year on Hong Kong's streets¹. These accidents led to severe costs for society not only in terms of economic losses, but also and more importantly in terms of human suffering. As has been shown in a vast amount of scientific studies, human failure is by far the most common cause for road accidents². With computers having the power to do a lot of complex tasks much better and faster than humans potentially could, Advanced Driver Assistance Systems (ADAS) pose a promising solution to alleviate the suffering arising from vehicle accidents on Hong Kong's streets. With the help of highly accurate sensors and cameras, these systems make driving easier and safer by helping to stay in the right lane, keeping enough distance to other vehicles, and much more.

However, it is not only the safety of vehicle drivers and pedestrians that can be massively improved by modern technology - with vehicle connectivity becoming an integral part of future vehicles, automobiles can guide drivers on their way through city on the fastest and safest way. This leads to less exhaust gases, a better flow of traffic and thus less traffic congestions - ultimately, these systems can help to make Hong Kong a cleaner and even more livable city.

2.2 Technology Roadmap for ADAS

Even though ADAS provides remarkable safety enhancements for vehicle drivers and pedestrians already today, it is only a small step on a much broader path - the path to fully autonomous driving. Therefore, the Society of Automotive Engineers (SAE) has defined six levels of driving automation:

- **Level 0: No automation** 

Level 0 functions do not actively help with driving tasks but solely provide alerts and notifications to the driver.

- **Level 1: Assisted driving** 

This level enables the vehicle to control the speed or intervene to adjust the steering, where the driver, however, still remains in full control of the car. Examples of level 1 functions are adaptive cruise control or lane keep assist.

- **Level 2: Semi-automated driving** 

Level 2 functions support the driver by steering and braking / accelerating at the same time by combining adaptive cruise control and lane keep assist. Even though

¹ Trend of Road Traffic Accidents (1953 - 2019), *Transport Department of the Government of Hong Kong S.A.R.*, https://www.td.gov.hk/filemanager/en/content_1119/2019/b1e.pdf, (accessed 10.02.2021).

² Brookhuis, K. A., De Waard, D., & Janssen, W. H. (2001). Behavioral impacts of advanced driver assistance systems-an overview. *European Journal of Transport and Infrastructure Research*, 1(3).

the driver can take off his hands of the wheel for short periods of time, he still needs to constantly supervise these support features.

- **Level 3: Highly automated driving** 

Level 3 autonomy allows the car to automatically overtake other vehicles, change lanes, control steering and braking / acceleration. The driver can take off his hands off the wheel and his eyes off the road. However, he needs to remain alert in case the vehicle asks to take over control. The most famous level 3 application is a traffic jam pilot.

- **Level 4: Fully automated driving** 

At level 4, the car is capable of driving automatically even in highly complex environments. The driver still has the option to take over control. However, if he/she does not, the car brings itself safely to a stop.

- **Level 5: Autonomous driving** 

Level 5 autonomous vehicles require no more human attention as the car takes over all aspects of driving under all conditions.

It should be emphasized that ADAS only encompasses level zero through two. These functions have already found their way to the streets of many countries and have helped improve the safety of drivers and pedestrians. As these functions are only the beginning, a wave of new models with sophisticated ADAS will come in the next years. Studies forecast a level 4 autonomous driving penetration rate of up to 87 % in the USA by 2045³. Globally, a comparable trend will be observed.

Status and Proposed Next Steps:

The EAC recommends the Government of Hong Kong SAR to establish a clear and transparent legal framework for basic Advanced Driver Assistance Systems (at least level zero through two) to support a faster penetration of respective vehicle features and thereby an enhancement of traffic safety.

Meanwhile there is also the urgent requirement for ADAS equipment on large commercial vehicles to be allowed to exceed current dimensional restrictions.

Type approval for Advanced Driver Assistance Systems in the European Union is regulated by the World Forum for Harmonization of Vehicle Regulations, which is a working group of the United Nations Economic Commission for Europe (UNECE). But it is not only European countries that apply the rules defined by the UNECE, also leading Asian countries such as Japan and South Korea do so.

³ Bansal, P., & Kockelman, K. M. (2017). Forecasting Americans' long-term adoption of connected and autonomous vehicle technologies. *Transportation Research Part A: Policy and Practice*, 95, 49-63.

This allows a faster and more efficient type approval and makes all participating countries benefit from uniform rules pertaining to vehicle components and technologies.

Status and Proposed Next Steps:

The EAC recommends the Government of Hong Kong SAR to also acknowledge and adopt the UNECE type approval regulations to enjoy the same benefits in terms of efficiency and transparency as multiple other leading markets.

2.3 Technology Roadmap for Vehicle Connectivity

- Vehicle connectivity describes not only the communication between vehicles but a much wider spectrum of intelligent functions to make roads safer and less congested. For example, vehicle-to-infrastructure makes data from road cameras, traffic lights, etc. accessible for vehicles thus helping drivers to make it safely to their destination by sharing real-time information about current road conditions. This technology is endorsed by the European Union.
- Even higher safety levels can be achieved through vehicle-to-vehicle communication. This technology allows real-time exchange of all kinds of data between vehicles, including speed, location, acceleration and braking procedures, information about vehicles' surroundings, etc. Making this data accessible for other vehicles helps increase safety by getting information about traffic conditions, obstacles, or hazards at a much earlier point in time.

Status and Proposed Next Steps:

The EAC recommends the Government of Hong Kong SAR to establish a clear and transparent legal framework (eg. European)- for Vehicle Connectivity to support a faster penetration of respective vehicle features and thereby an enhancement of traffic safety.

3. HK Type Approval Regulation

3.1 Gap analysis HK vs. EU regulation (focus ADAS)

The majority of the safety features included in a typical “Driving Assistance Package” or “ADAS” is regulated by various EU certificates (e.g. R13-braking, R79-steering effort etc...), which means no additional applications or exemptions are required on these items on top of the vehicle type approval process. Examples as below:

- Active brake assistant
- Steering assistant
- Active lane keeping assistance
- Active blind spot assistant

However, many of these items can only be approved via exemption or case-by-case during the vehicle type approval process in Hong Kong, and require “extension application”.

- Visual display unit “VDU” (related to the factory which installed driving recorder):

In Hong Kong, the VDU in vehicles is only used for:

- displaying information about navigating the vehicle
- current closed view of the area surrounding the vehicle, and
- information about the current state of the vehicle.

Whereas in Europe, the vehicle follows the requirements of the European Standard of Principles (EsoP) and the EU commission 2008/653/EC. In Europe, the VDU is allowed to display non-navigation information which can be visible to the driver with vehicle speed limit up to 5km/h; However, in Hong Kong, non-navigation information is restricted to be displayed in the VDU no matter the vehicle is in motion at any speed or standstill.

	Hong Kong	EU
Cover Arts with motion pictures	Restricted	Not restricted
Images/Profile pictures	Restricted	Not restricted

Videos	Restricted	Restricted if car speed is over 5km/h
Text messages	Restricted	Restricted to 7 characters if car speed is over 5km/h
Browser	Restricted	Restricted to 7 characters if car speed is over 5km/h

Moreover, based on Hong Kong Government's current regulations (37) of Cap. (374A) which allows the live feed from the driving recorder to be shown on the VDU, it is prohibited to playback the recorded footages in the vehicle, even when the vehicle is at standstill. However, in Europe, drivers are allowed to review the recorded footage in the vehicles.

3.2 HK Type Approval Regulation Process

Regulation update vs. system of case-by-case exemptions

1. **Many new or even common features are not covered or clearly defined in the Hong Kong Type Approval Regulation process.**

Below mentioned items are EU/ECE accepted and regulated, but not yet regulated by the Hong Kong authority, that means exemptions or case-by-case approval is required for each Type Approval application.

Exemption Approval	Case-by-case Approval
Mirror Cam	ADAS
Light source (HID/ LED)	Active brake assistant
Rear lamp (over height limit)	Active steering assistant
Rear reflector (height and dimension)	Active lane keeping assistance
Gross Vehicle Weight for PC (over 3t)	Active blind spot assistant
ADAS equipment on large commercial vehicles (over width limit)	

2. Individual extension approval is required for each combination of different features for the same model, whereas in EU all optional equipment is covered under a single type approval certificate.

Optional equipment includes: Types of headlights, individual ADAS features, suspensions, exhaust systems, exterior appearance packages etc...

Examples:

Base: without any Advanced Driver Assistance Systems

Extension 1: with Active brake assistant only

Extension 2: with Active brake assistant + Active blind spot assistant

Extension 3: with Active brake assistant + Active steering assistant + Active lane keeping assistance

Extension 4: with Active brake assistant + Active steering assistant + Active lane keeping assistance + Active blind spot assistant

And the list grows according to the different combinations created by customers' order.

3. The current local type approval process is not optimised for electric vehicles with extra 2 months lead time to get approval. In addition, a new type approval is always required for any technical changes such as range improvement with upgrade motor or battery.
- a. The type approval lead time for EV is approx. 2 months longer than ICE vehicles but in general EV is less complicated than ICE in drive train.
 - b. Due to rapid advancements on EV technologies, the efficiency and performance of the battery, motor and on-board charger will constantly be improved over the model lifecycle. Technical updates will happen more frequently compares to that on ICE models.

Based on the current procedure, a fresh type approval application is always required for any technical changes, together with the long lead time mentioned in (1), it will make the overall process extremely complicated and discourage manufacturers to bring in more EVs with updated technologies to the market. In EU, for technical changes on the existing type approval certificate, an extension type approval is only required with updated Whole Vehicle Type Approval (WVTA) certificate provided by the OEMs.

4. Recommendations & Call for Action

4.1 Technology Approvals

In preparation for improving the safety, mobility and efficiency of driving, latest in-vehicle technologies of Advanced Driving Assistance Systems (ADAS) and Visual Display Unit (VDU) should be legalised in Hong Kong. EAC believes the necessity of enabling a wider range of road safety features and recommends Hong Kong Government to review the current regulations and to provide a clear guideline. EAC would recommend the Hong Kong Government to consider directly adopting the EU regulations and certifications - (e.g. R13-braking, R79-steering effort, etc)

To speed up the type approval process and to minimize the workload of vehicle manufacturers in preparing all the documents of each combination with different features as well as save operation time for Transport Department in going through all the complex information

The HK authority should allow vehicle manufacturers to submit one approval certificate of each model (similar to EU WVTM 2007/46) to cover all possible optional equipment instead of extension approval

- EAC suggests to shorten the type approval lead time of EV to the same as ICE and allow “modifications” / “extensions” base on existing type approval certification for technical improvements from battery, motor and on-board chargers to avoid multiple fresh type approval applications on a single EV model

4.2 Electric Mobility and Charging

Charging Infrastructure Planning and Monitoring

There is a need for a systematic planning regarding charging infrastructure implementation to make sure that the charging points are located where needed. This should be complemented by a continuous monitoring to track the ramp-up.

Charging Infrastructure Target Group

In order to support a faster development as well as usage efficiency of the charging infrastructure, the target groups for a charging infrastructure subsidy program should be towards both Private (Home) charging as well as Public and Semi-Public (Office/Commercial Buildings) charging.

Clear Regulations

In order to stimulate these charging infrastructure target groups as well as ensure the build-up of a high-quality charging infrastructure network, clear regulations and guidelines are required. These regulations and guidelines should focus on:

- Simplification and standardisation of installation approval process, incl. Quality Seal/Certification of electricians/installation companies.
- Reimbursement process to be transparent, straightforward and swift.
- One-time subsidies directly to private EV owners. Only after an EV owner ‘successfully’ installed a charger at his/her residential area, the subsidy should be paid out. Applying for the subsidy should be simple and easily understood for everyone in a swift manner.
- One-time subsidies to companies / office building owners who install chargers in their building parking lot(s) for their associates’ / tenants’ use, as well as to companies to charge their commercial EV fleets in their facilities (e.g. depot charging).
- Update the Cap 374C Road Traffic (Parking) Regulations to a) explicitly allow charging of an electric vehicle on any parking lot with the required infrastructure and b) allow commercialization of the parking lot beyond parking fees with the explicit permission for separate billing of the power charged during parking period (in kWh) to the vehicle owner. This would better reflect the technical reality of varying charging speeds and battery capacities of BEVs versus the current practice of an overall increased parking fee, regardless the power charged (“premium parking”).
- One-time subsidies to commercial property owners who install chargers in their building parking lot(s) for their customers’ use. The objective of such regulations should be to keep Capital Expenditure (CapEx) as low as possible and thereby make it attractive to Charging Point Operator to run and operate the charging points (i.e. low CapEx means they only have to cover their Operating Expenditure (OpEx) to break-even). Furthermore, besides direct subsidies, it can be considered to lower the CapEx by allowing for favourable depreciation rules on installed charging pillars or other tax benefits.
- Guidelines for New-build and Renovation of Buildings. There must be a directive for new-build and renovation of buildings emphasising that buildings must be “EV ready” in terms of wiring, power capacity, accessibility and number of chargers, etc. There must also be a ratio for parking lots with charging points.
- Concerns regarding property insurance coverage and possible insurance loading included due to fire risk etc. should be addressed by Hong Kong SAR Government
- Review current resource allocation of charging stations and explore opportunities to standardise charging systems for all EV users
- Enhancement of TD’s App “HKeMobility” and promote it as All-In-One solution App to EV users. TD shall coordinate with OEMs, public charging providers and commercial

property owners to use their data openly and share transparency of the charging infrastructure (charging station location, availability, prices, etc.) to EV users.

Focus on ‘Customer Journey’ for Public Chargers

For an efficient and effective usage of public chargers, a smooth ‘Customer Journey’ for the following key elements needs to be ensured:

- **Find:** It should be easy to find available public charging locations through in-car navigation, APP and/or smart phone navigation (incl. in-use indicators and reservation options), etc.
- **Navigate:** It should be easy to find the exact location of the charger through e.g. building signage, routing systems or next to entrance/exit signage.
- **Use:** Ease of usage through common standards should be ensured. Chargers should be in a good condition, and accessible. This could be ensured by encouraging dedicated charging point operator companies to run the charging point operations.
- **Pay:** An easy payment through e.g. Octopus Card/Credit Card/APP etc. should be ensured and budget usage maximised.

Maximizing the Charging Coverage and Ensure a Broad Reach

First, due to the high cost of installation in certain locations, a minimum number of parking spaces which can benefit from this budget needs to be defined (e.g. at least 30,000 parking spaces) in order to increase the impact and reach of this subsidy program (e.g. avoid that the usage of this subsidy budget only for a few high-end locations).

Second, an intelligent management of charging stations can help to increase the total number of chargers as it can significantly decrease the peak load on the grid (e.g. in the evening).

Third, as the daily commute in HK is usually (significantly) less than 100 km and in private and semi-private locations the vehicles are typically parked for several hours, the installation of AC- or mid-size DC-chargers is recommended as it is more cost-efficient (i.e. subsidy budget can cover more chargers, while still fulfilling the users’ charging needs).

Finally, in order to obtain higher coverage and broader reach in the city, buildings with existing sufficient charging infrastructure should be excluded from the support scheme.

It will likely take decades to fully renew and renovate all existing buildings and parking areas with charging equipment. Therefore, the EAC encourages the acceleration and expansion of plans for public high-speed DC-charging stations for BEV owners without access to a charging facility at home (road parking, no fixed car park, car park without charging facilities). The HK government should designate enough land for a similar number of high-speed DC-charging stations all across Hong Kong as it does for today’s petrol stations. At least some DC-charging locations should be ready to also charge heavy trucks and other commercial vehicles to introduce fully electric solutions in the near future. Construction, operation and maintenance of the DC-charging network could be leased out to private operators.

Best Practices & Further Ideas

- Ensure unified charging and payment solutions within Hong Kong and enforce roaming between all charging point operators. No proprietary charging solutions in public/ semi-public locations as this creates inefficiencies, lowers the coverage and leads to inconveniences for customers.
- ‘Park & Charge’ solutions at strategic public charging locations (e.g. airport parking) with preferential parking fees/charging fees for EV’s.
- Penalties/fines for non-EV vehicles parking on dedicated charging point parking.
- Penalties for EV vehicles who ‘overstay’ the charging period of their vehicle in public charging locations and thereby unnecessary occupy a charging point (e.g. by increased parking fee after the EV’s battery is fully charged).
- Strong and attractive visualization/decoration of the charging points.
- Ensure that all charging points in (semi-)public locations have a fixed cable and plug attached - EV users do not have to bring their own cable.
- Charging point incentives for authorised Dealerships of OEM’s to ensure a quick uptake and visibility of charging points at the parking lots/service workshops of these highly frequented locations.

4.3 Summary of Specific Commercial Vehicle Issues

4.3.1 Dimensional Allowance for ADAS Equipment

Transport Department to allow ADAS equipment on large commercial vehicles to be outside the length and width dimensional restrictions.

4.3.2 Renewable Alternative Fuels

Hong Kong Government to be proactive in facilitating the bringing to market of renewable alternative fuels and encouraging their use with incentives.

4.3.3 Public Light Bus Regulations

Transport Department to review Public Light Bus regulations to allow European light buses to operate with their latest safety systems.

4.3.4 Transport Efficiency

Transport Department to undertake a study into allowing more weight to be carried by vehicles with Road Friendly Suspension (air suspension) to reduce the numbers of trucks on the road and increase operational efficiency.

4.3.5 EV Charging Standards

EAC looks forward to cooperating with the Hong Kong Government in implementing the EV Roadmap including developing a common standard for charging cross border electric commercial vehicles while incentivizing the purchase of such vehicles operating out of Hong Kong into the Greater Bay Area.

4.3.6 Encourage Best Maintenance Practices

Financial Secretary to consider reviewing FRT calculation so that maintenance contracts and extended warranties are excluded from the calculations, so that franchised dealers are not disadvantaged in offering these products that ensure best maintenance of commercial vehicles.