



Collaboration in the Greater Bay Area - EMSD's Perspective

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Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area (GBA)



Source: <https://www.bayarea.gov.hk>



Outline Development Plan for the Guangdong-Hong Kong-Macao GBA



Released by the State Council on 18 Feb 2019



Basic Principles

1. To be driven by innovation and led by reform
2. To coordinate development and plan holistically
3. To pursue green development and ecological conservation
4. To open up, cooperate and achieve a win-win outcome
5. To share the benefits of development and improve people's livelihood
6. To adhere to "One Country, Two Systems" and act in accordance with the law

Outline Development Plan for the Guangdong-Hong Kong-Macao GBA



7 Areas of Development

- 1. Developing an international innovation and technology hub**
- 2. Expediting infrastructural connectivity**
- 3. Building globally competitive modern industrial system**
- 4. Taking forward ecological conservation**
- 5. Developing quality living circle for living, working and travelling**
- 6. Strengthen cooperation and jointly participating in the Belt and Road Initiative**
- 7. Jointly developing Guangdong-Hong Kong-Macao cooperation platforms**

Outline Development Plan for the Guangdong-Hong Kong-Macao GBA



"The Hong Kong SAR Government will fully seize the opportunities brought about by the development of the Greater Bay Area, integrate the needs of the country with the strengths of Hong Kong and fully leverage the market-driven mechanism, enabling Hong Kong to enjoy brighter development prospects amid its integration into the overall development of the country."

Development Focus of Hong Kong



One of the four cores cities of the GBA

- fortuitous geographic advantage and a world city leveraging on the Mainland while engaging the world

Unique advantages in the GBA

- international city in the GBA
- free economic system
- well-established information technology infrastructure and financial system



Key Development Focus

- international financial centre
- global offshore RMB business hub
- innovation and technology industries
- center for international legal and dispute resolution services



Electrical & Mechanical Services Department (EMSD)



To provide E&M services for enhancing the safety and quality of life of Hong Kong

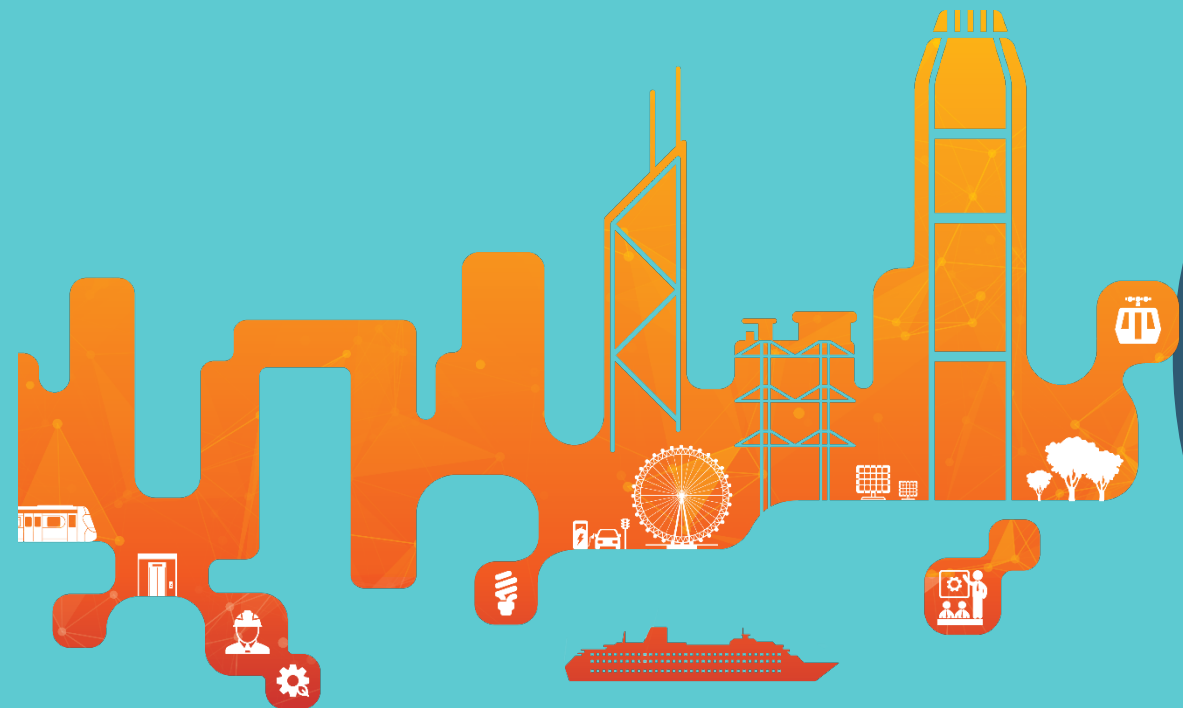


Regulatory Services

- Around 500 staff

Trading Services

- Around 4 500 staff



Electrical & Mechanical Services Department (EMSD)



Regulatory Services

Enforcing legislation related to electrical, gas, mechanical and railway safety, and promoting energy efficiency and conservation



ENERGY LABEL 能源標籤	
more efficient 效益較高	Grade 1 級
1	
2	
3	
4	
5	
less efficient 效益較低	
Annual Energy Consumption (kWh/Cooling) 每年耗電量 (千瓦小時/製冷) <small>Based on 1200 hrs/year operation 以每年使用1200小時計算</small>	420
Cooling Capacity (kW) 製冷量 (千瓦)	2.54
Refrigerant 製冷劑	R410A
Room Air Conditioner 空調機 Brand 品牌:	ABC 美其士
Model 型號: Reference Number/Year 參考編號/年份: Information Provider 資料提供者:	HK1234 U1-C080123 / 2014 XYZ 美其士
機電工程署 EMSD	

- Enforcing 15 pieces of legislation under 5 policy bureaux
- Regulating relevant trades and registration of practitioners
- Implementing various schemes under new government initiatives
- Conducting promotion and public education activities



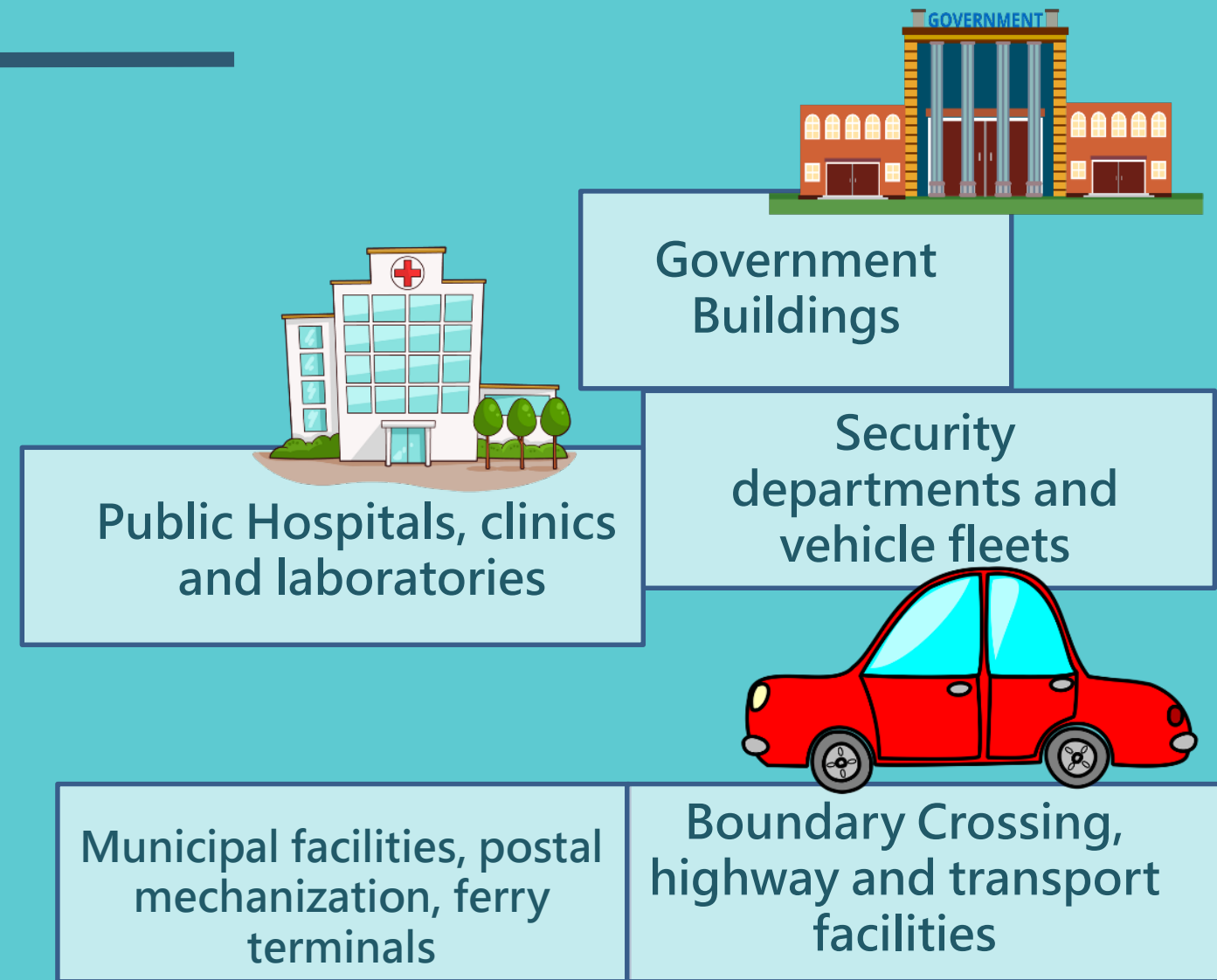


EMSD



Trading Services

- Providing one-stop comprehensive professional and quality E&M engineering services for more than 100 government departments and public bodies
- Managing over 10,000 government premises and E&M facilities



- Project management and consultancy services
- Government vehicle servicing and procurement services





Collaboration in the GBA - EMSD's perspective



**E&M Talent
Development**

**Energy Efficiency
& Conservation**

**Innovation &
Technology**



Initiatives in the GBA Development - E&M Talent Development



Signing Memoranda of Co-operation (MoC) on E&M Talent Development



Memorandum of Cooperation with Guangzhou Industry and Trade Technology College signed on 1 June 2018



Memorandum of Cooperation with Guangzhou Municipal Human Resources and Social Security Bureau signed on 6 November 2018

Initiatives in the GBA Development – E&M Talent Development



Under the MoC, we are

- liaising with international organisations
- establishing WorldSkills Training Centre
- participating in WorldSkills Competition



Initiatives in the GBA Development - E&M Talent Development

Looking forward, we are going to

- **organise Guangdong-Hong Kong I&T Competition**
- **advocate establishment of E&M Talent Training and Development Base**
- **conduct joint training programmes for participating in WorldSkills Competition**

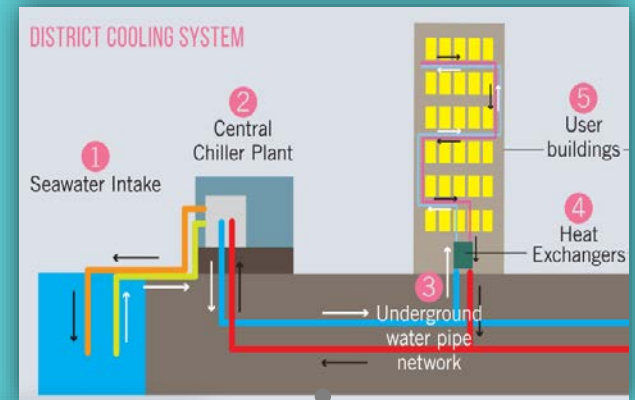




Initiatives in the GBA Development – Energy Efficiency & Conservation



ENERGY LABEL 能源標籤	
more efficient 效益較高	Grade 1
1	
2	
3	
4	
5	
less efficient 效益較低	
Annual Energy Consumption (kWh/m ² /year) 每年耗電量 (平方米呎呎)	420
Cooling Capacity (kW) 製冷量 (千瓦)	2.54
Refrigerant 制冷剂	R410A
Room Air Conditioner Brand 品牌	AOC
Model 型號	MR204
Reference Number / Year 資料編號 / 年份	UI-C08959 / 2004
Information Provider 資料提供者	3TZ
機電工程署 EMSD	



1995

1998

2009

2012

2015

Energy Efficiency Labelling Scheme

Building Energy Code

Energy Efficiency (Labeling of Products) Ordinance

Buildings Energy Efficiency Ordinance

District Cooling Services Ordinance

Initiatives in the GBA Development – Energy Efficiency & Conservation

- **Promoting retro-commissioning in government and commercial buildings**
- **Publishing technical guidelines**
- **Conducting experience sharing and training**

A Shared Problem

“Most buildings will lose up to 30% of their efficiency in the first three years of operation.”

– Bill Harrison,
ASHRAE Presidential Member
(Data based on Texas A&M Study)



2017

Initiatives in the GBA Development - Energy Efficiency & Conservation



Signing Memorandum of Co-operation with various organisations in Mainland, Hong Kong and Macau on 15 Nov 2018

Initiatives in the GBA Development – Energy Efficiency & Conservation

- **Set out development directions**
- **Establish three working task forces**



Technical Task Force



Manpower Task Force



Promotion Task Force

Initiatives in the GBA Development – Innovation & Technology

E&M InnoPortal

Wishes (>180 nos.)

Trial Projects (>50 nos.)

Solutions (>130 nos.)

Government
Bureaux
& Departments

Match Making

Government Facilities as
Testing Ground

Universities,
R&D Institutions
& Start-ups

Measurement &
Verification

Application &
Service
Enhancement

Promotion & Scale Up

Commercialisation
& Continuous
Improvement

Initiatives in the GBA Development – Innovation & Technology

Memorandum of Co-operation signed with 5 universities and 7 R&D institutions



Initiatives in the GBA Development – Innovation & Technology

Memorandum of Co-operation signed with GBA I&T counterparts



**Guangdong Provincial
Association for
Science and
Technology**



**Guangdong
Productivity Centre**



**Guangdong Academy
of Sciences**

Initiatives in the GBA Development – Innovation & Technology

Co-creating the GBA Cities as an International I&T Hub

肇慶

廣州

惠州

佛山

東莞

深圳

中山

香港

江門

澳門

珠海



Way Forward



- **Collaborate closely with GBA counterparts for E&M talent development**
- **Promote energy efficiency & conservation, including retro-commissioning, for GBA green development and ecological conservation**
- **Co-create GBA cities' cluster into an international innovation & technology hub**



Thank you

