



Asia-Pacific  
Economic Cooperation



機電工程署



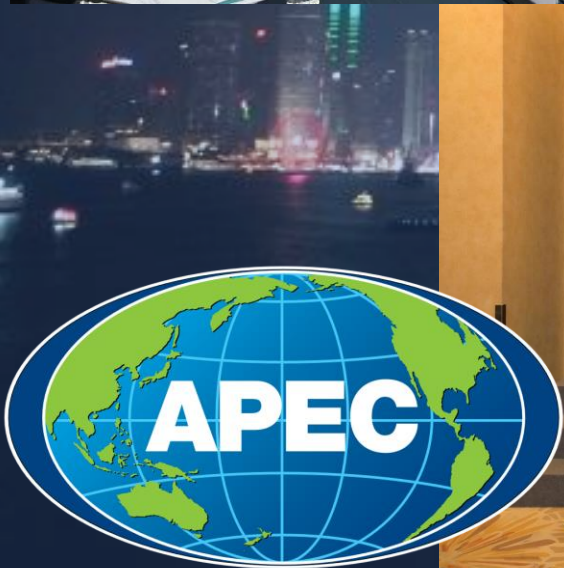
EMSD

# **Joint Meeting** of Four Expert Groups of the APEC Energy Working Group

Hong Kong, China  
9 - 11 April 2025

**Mr Raymond POON**  
**Director of Electrical and Mechanical Services**

# EMSD Efforts



# APEC Meetings & Leadership by Hong Kong, China

## APEC Meetings

2018

55<sup>th</sup> Energy Working Group (EWG55)

2019

52<sup>nd</sup> Expert Group on New and Renewable Technologies (EGNRET52)  
53<sup>rd</sup> Expert Group on Energy Efficiency & Conservation (EGEEC53)

2020

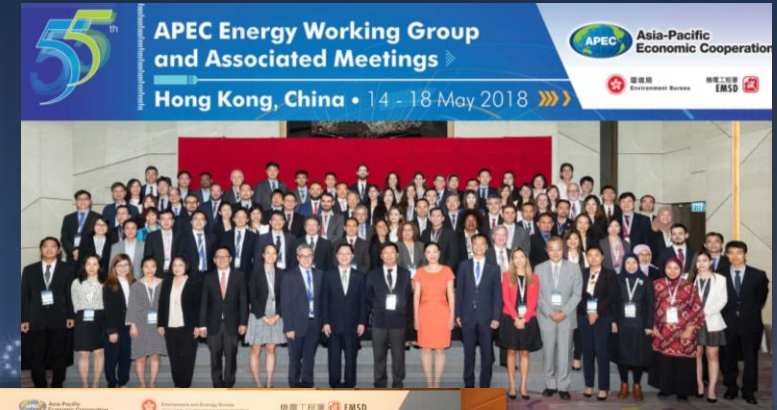
55<sup>th</sup> Expert Group on Energy Efficiency & Conservation (EGEEC55)  
31<sup>st</sup> Expert Group on Energy Data and Analysis (EGEDA31)

2023

60th Expert Group on Energy Efficiency & Conservation (EGEEC60)

2024

35th Expert Group on Energy Data & Analysis (EGEDA35)



## Leadership



Mr Barry CHU

EWG Deputy Lead Shepherd (2021-2025)

Mr Ek Chin VY

EGEEC Chair (2019 – 2023)

Ms Jovian CHEUNG

EGEEC Vice-chair (2023-2025)

# APEC Projects by Hong Kong, China

## Completed Projects

- EWG 08 2019S APEC Workshop on District Cooling and/or Heating Systems (DCHS)
- EWG 08 2019A Energy Intensity Reduction in the APEC Regions' Urbanised Cities
- EWG 09 2020A APEC Capacity Building Workshop on Retro-Commissioning (RCx)
- EWG 08 2021S Capacity Building Workshop on APEC's Goals of Doubling the Renewable Energy Share in the Energy Mix and Reducing Energy Intensity
- EWG 05 2021A Promoting Energy Efficient and Resilient Data Centres in the APEC Region
- EWG 05 2022A Promoting Energy Modelling in APEC Region
- EWG 07 2022A APEC Retro-Commissioning (RCx) Hub: Training and Registration Scheme
- EWG 01 2023A Promoting Digital Solar Resource Maps and Management Technologies in Advancing Renewables Growth in APEC



## Projects In Progress

Promoting Energy Efficiency Enhancement in Electricity Generation

EWG 221 2023A

Hydrogen for Land Transport Development Pathways and Challenges

EWG 107 2024



# Combat Climate Change



October 2021

Hong Kong's

# CLIMATE ACTION PLAN 2050

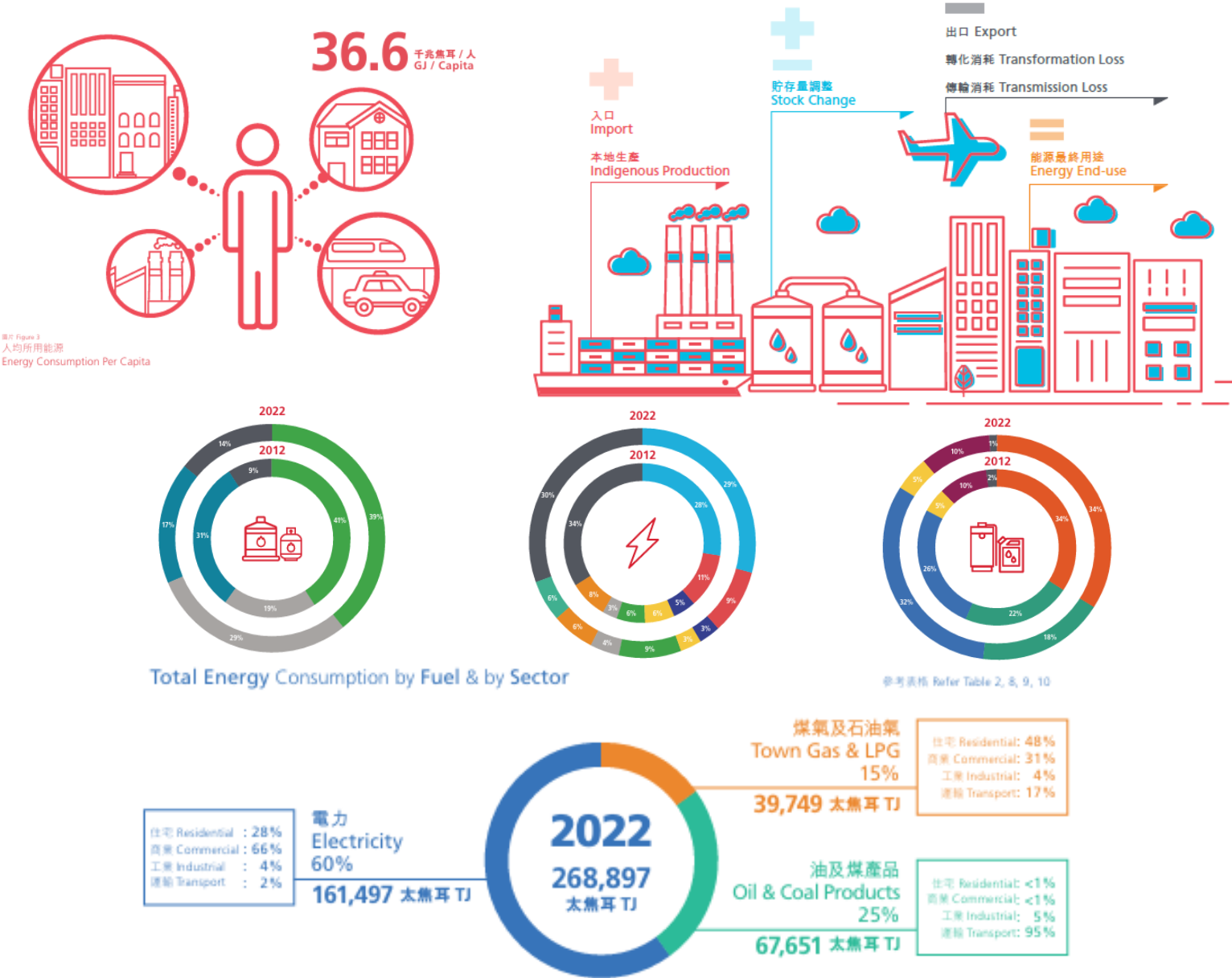
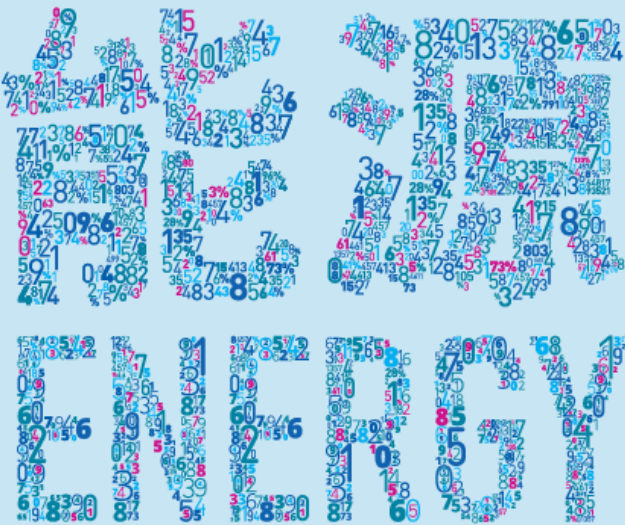


香港邁向  
**碳中和**  
Carbon Neutral@HK

# Energy Data and Analysis – Energy End-use Database

香港能源最終用途數據  
Hong Kong  
Energy End-use Data  
2024

機電工程署  
EMSD



# Energy Data and Analysis

## – Energy Consumption Indicators and Benchmarking Tool

**碳中和** R Carbon Neutral@HK

機電工程署 EMSD

**建築物電力使用指數網上基準工具** (網上基準工具)  
**Online Building Based Electricity Utilization Index Benchmarking Tool** (Online Benchmarking Tool)

已於2022年6月17日正式推出  
Launched on 17 June 2022

**齊用網上基準工具 共建低碳節能綠建**  
Wide use of Online Benchmarking Tool for achieving energy saving, promoting low-carbon life style and green building.

詳情請參閱以下網址  
For details, please refer to the website at the following link:



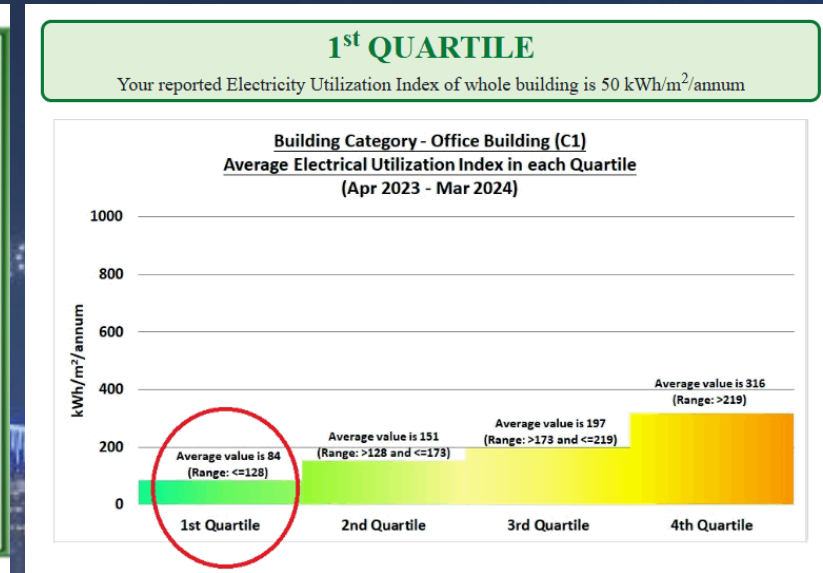
PRINTED WITH SOY INK

EUI of your building is **110 kWh/m<sup>2</sup>/annum**, which is ranked in **"1<sup>st</sup> Quartile"**

Your EUI is ranked in **TOP 25% of Office Building**

See [here](#) for average EUI in this building group.

Keep going!



**4Ts**

**TRANSPARENCY**

**TARGETS**

**TOGETHER**

**TIMELINE**

2016 2017 2018



Smart Meter

12:34:56

01234 kWh

56789

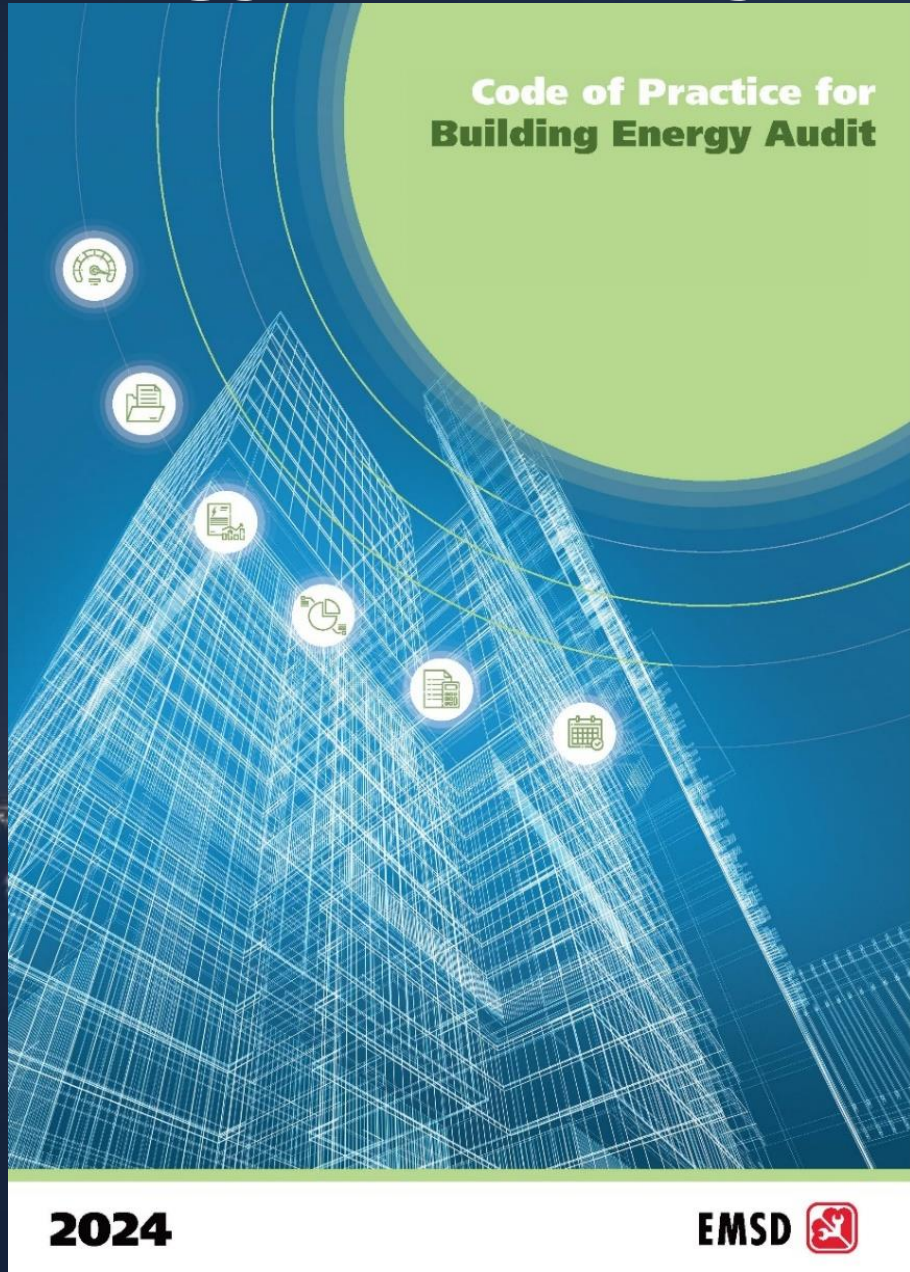
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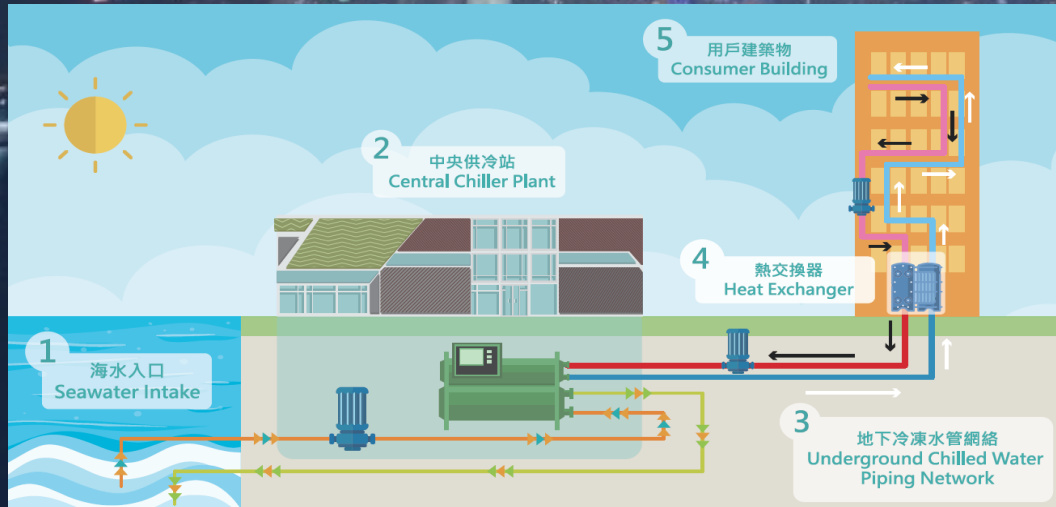
**SUBSCRIBED**

# Energy Efficiency and Conservation – Energy Audit



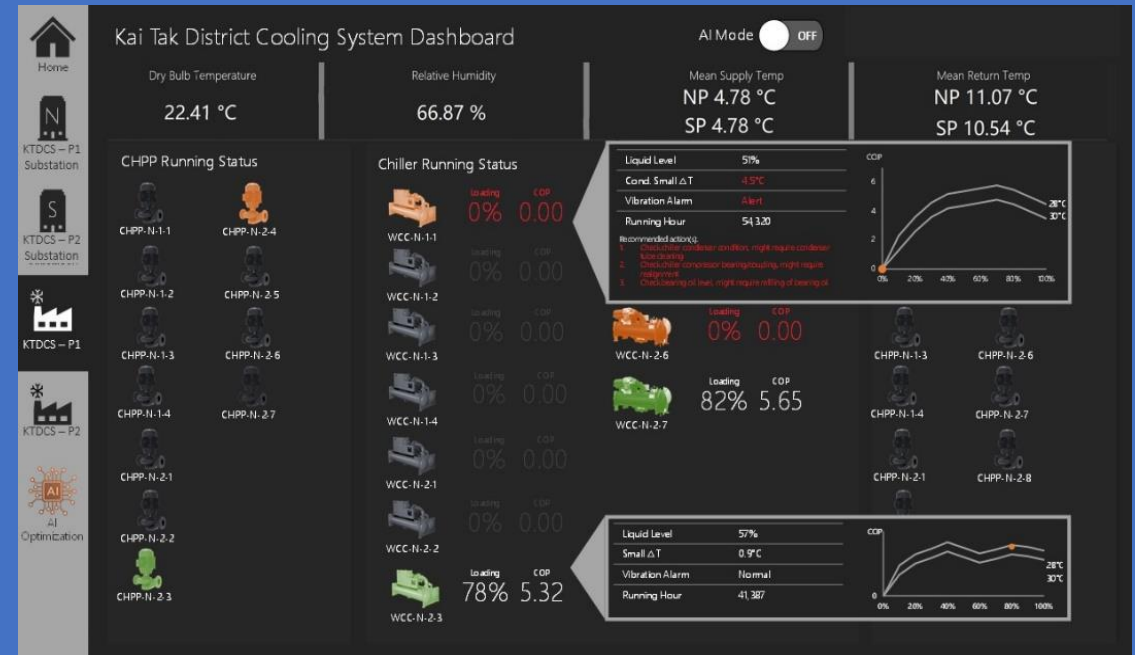
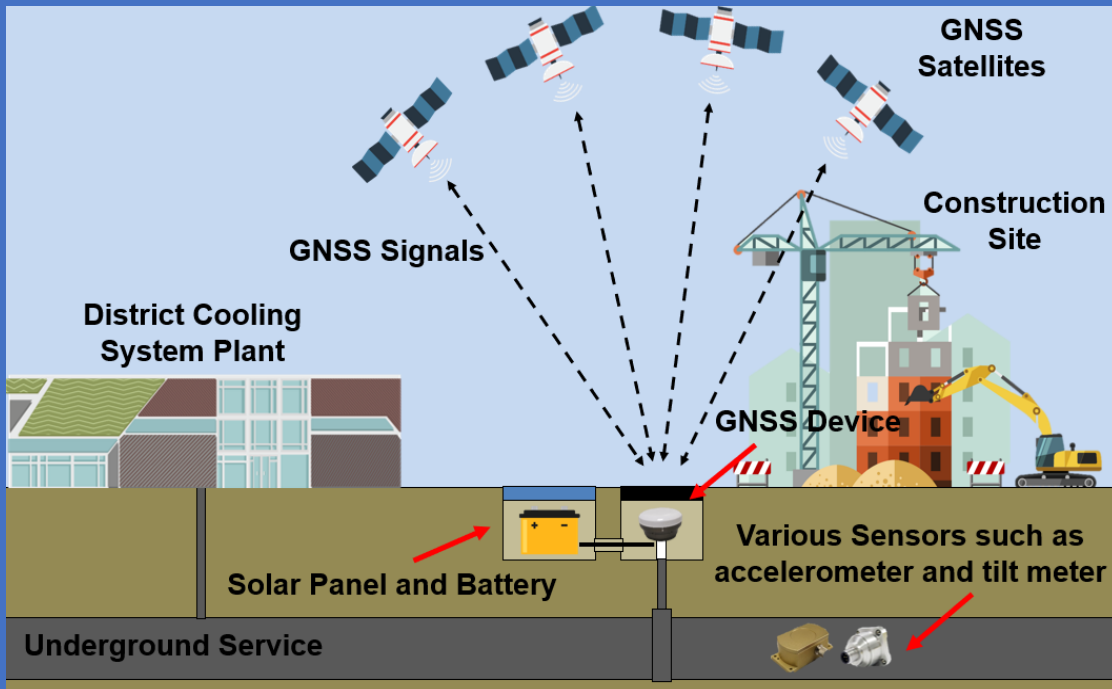
# Energy Efficiency and Conservation

## – Intelligent & Sustainable District Cooling System



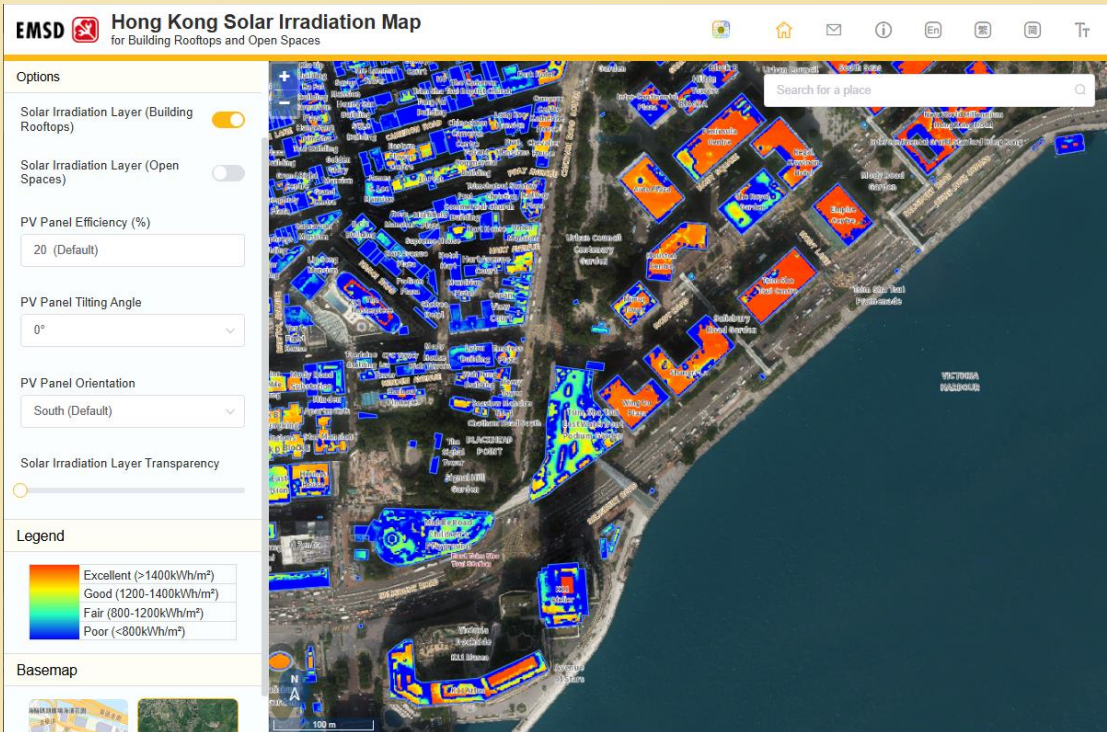
# Energy Efficiency and Conservation

## – Intelligent & Sustainable District Cooling System



# New and Renewable Energy Technology

## – Hong Kong Solar Irradiation Map



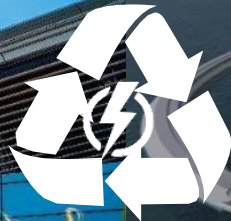
可再生能源探索者  
Integrated Self-sustained Renewable-  
Energy Explorer (iSEE)

# New and Renewable Energy Technology

## – Waste-to-Energy

**T•PARK @ Tuen Mun**  
Commenced operation in 2015

**I•PARK 1 @ Shek Kwu Chau**  
Will commence operation in 2025



# Waste Reduction Waste-to-Energy Facilities

**O•PARK 1 @ Siu Ho Wan**  
Commenced operation in 2018

**O•PARK 2 @ Sha Ling**  
Commenced operation in 2024

# New and Renewable Energy Technology

## – Waste-to-Energy



**I-PARK 1**

**@ Shek Kwu Chau**

Will commence operation in 2025

# New and Renewable Energy Technology – APEC Projects

## Capacity Building Workshop on APEC's Goals of Doubling the Renewable Energy Share in the Energy Mix and Reducing Energy Intensity (EWG 08 2021S)

APEC Capacity Building Workshop on  
APEC's Goals of Doubling the Renewable  
Energy Share in the Energy Mix and  
Reducing Energy Intensity

Workshop Summary

APEC Energy Working Group

February 2024



Promoting Digital Solar  
Resources Maps and  
Management  
Technologies in  
Advancing Renewables  
Growth in APEC (EWG 01  
2023A)



# Clean Fossil Energy



**Z CARBON  
ERO  
ENERGY**

**Renewable  
Energy  
by 2050**



**60-70%  
by 2035**



# Clean Fossil Energy

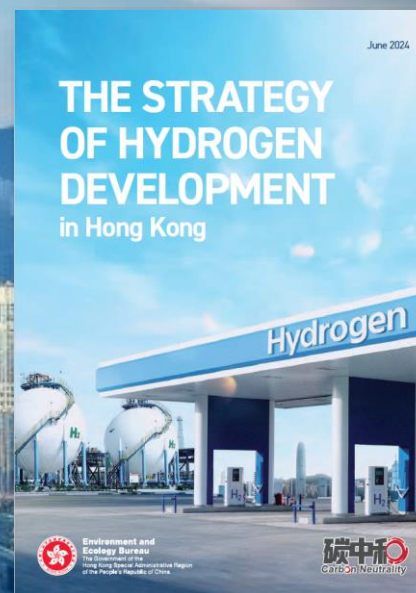
## H<sub>2</sub> Development

### Gas Safety Ordinance

H<sub>2</sub>

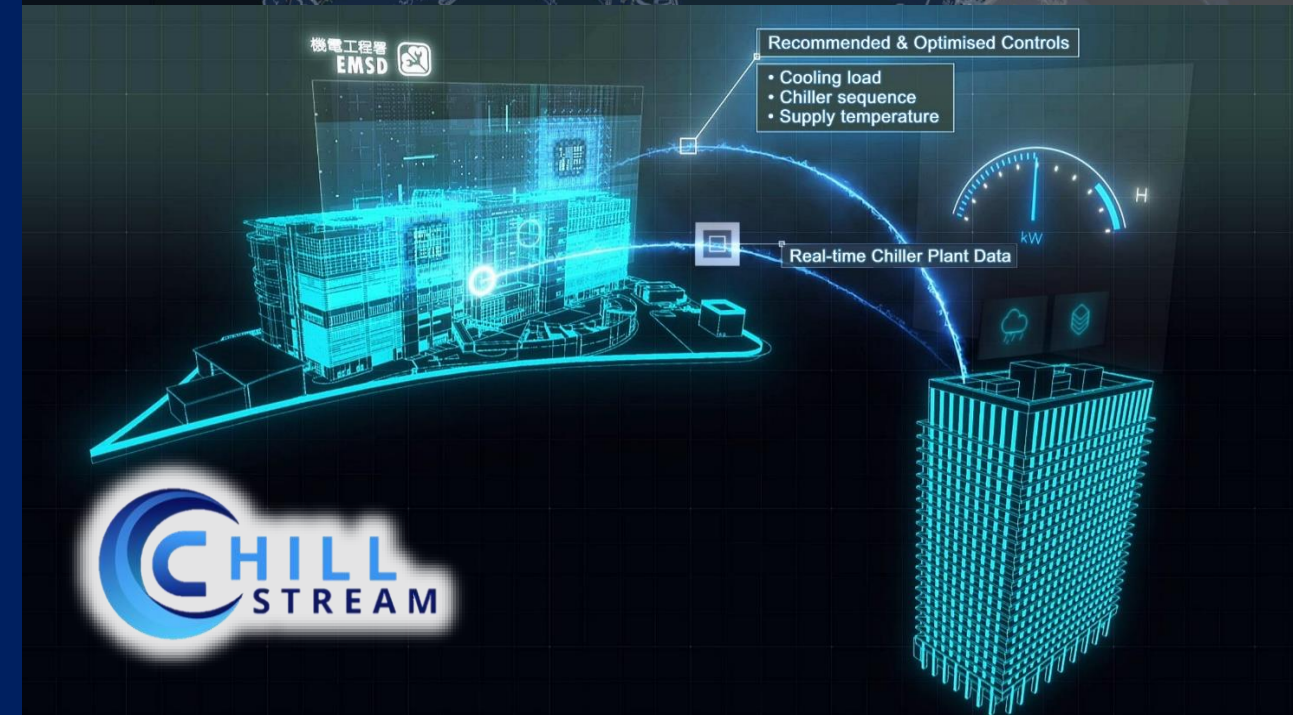
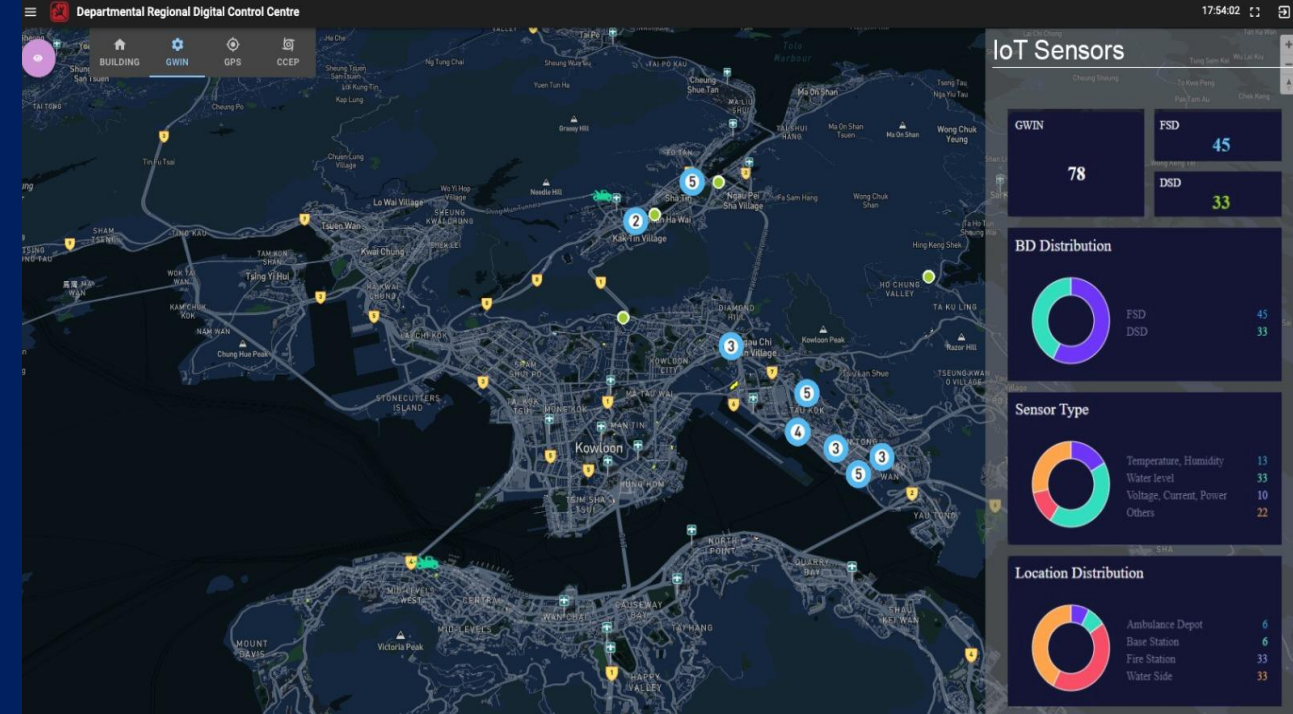
### Legislative Amendments for Hydrogen

### Green Hydrogen Certification System



*“None of these systems can run the same way they do today and the cost to implement is prohibitively high”*

*Prof. Desiree Plata, Civil and Environmental Engineering of MIT*



# EMSD 開發人工智能代理 Engentica

The first AI Agent for E&M Industry  
首個機電行業人工智能代理



國際建築機電

## 人工智能 大挑戰

Global AI Challenge

For Building E&M Facilities



# 2025



香港邁向 **碳中和** Carbon Neutral@HK

*Thank You!*