

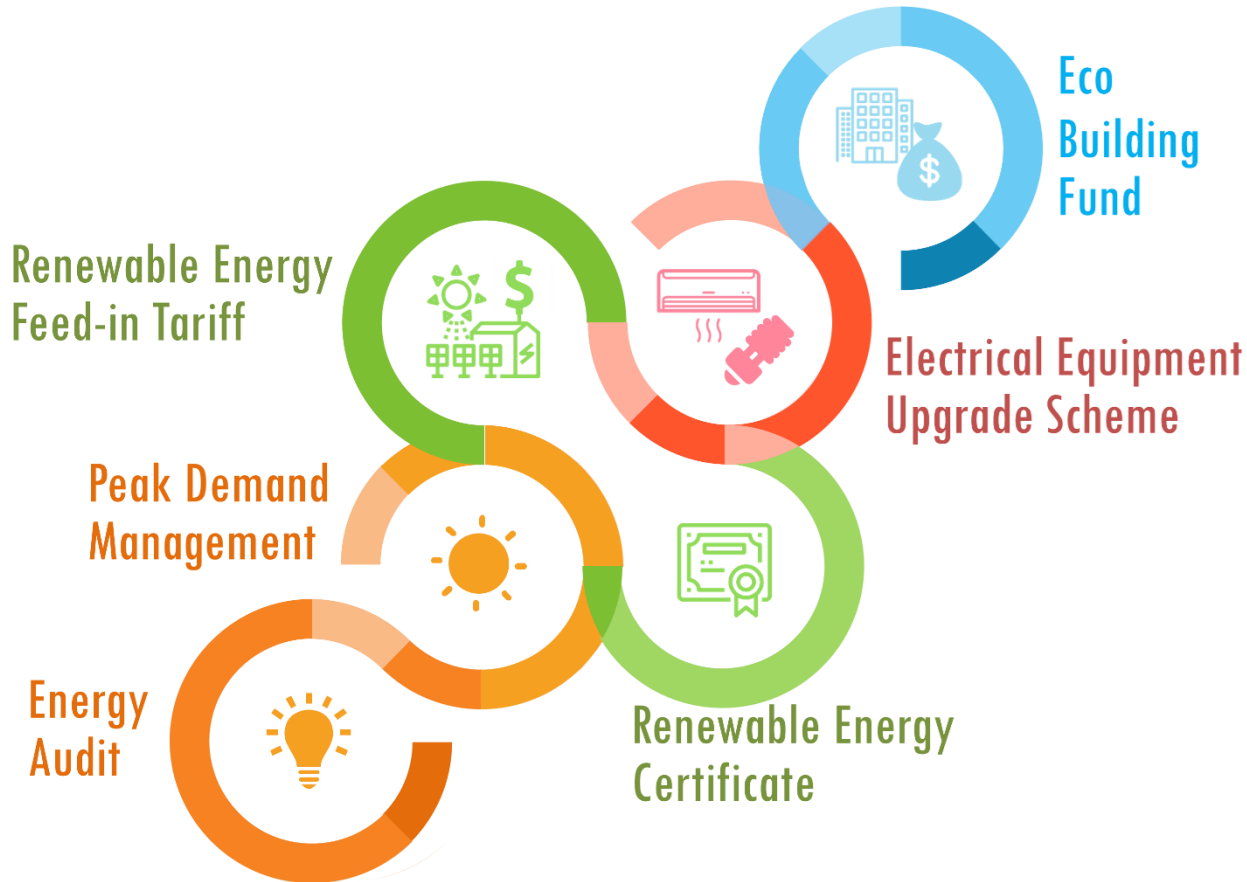
# CLP Eco Building Fund Introduction

CLP Power Hong Kong Limited  
March 2022



- CLP Power Hong Kong Limited (CLP)'s initiatives on Energy Efficiency and Conservation
- CLP Eco Building Fund Introduction
- CLP Eco Building Fund Successful Cases

# CLP Initiatives on Energy Efficiency and Conservation





## Objective

CLP Eco Building Fund was set up to support the carrying out of retrofitting or retro-commissioning to enhance the energy efficiency performance of building services installations for communal use in residential, commercial and industrial buildings

# CLP Eco Building Fund Introduction



## Communal Area of Residential Buildings



## Communal Area of Commercial and Industrial Buildings



### Residential Buildings



Maximum Subsidy\*

**HK\$ 300,000** per Year

\*The ceiling of subsidy amount depends on the type of building and tariff account



### Commercial / Industrial / Composite Buildings



Maximum Subsidy\*

**HK\$250,000** per Year

\*The ceiling of subsidy amount depends on the type of building and tariff account

### Retrofitting Projects



### Retro-commissioning





## Retrofitting Projects



**Replacement, upgrade or retrofit of building services systems,**

**e.g.:**

- Lighting System
- HVAC System
- Lift & Escalator
- Other Electrical Installation (including water pumps)

**LED Lighting**



**Water-cooled Chiller**



**EC Plug Fan**



**Solar Film**

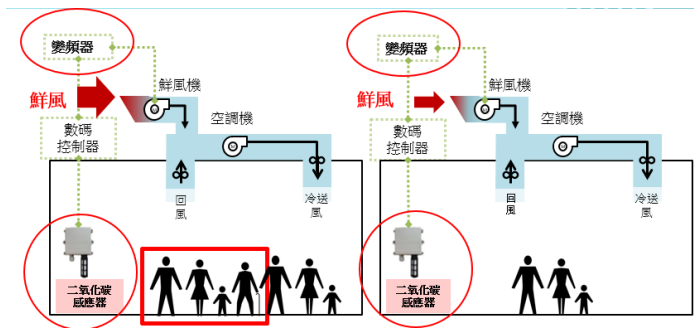






Retro-commissioning to optimise building control and operation, e.g.:

- Demand Control Ventilation
- Water Pump / Air Fan VSD Control





## Energy Saving Opportunities

1. Automatically Control Indoor Air Temperature Setting
2. Install Variable Speed Drive to Control Water Pump/Fan Speed
3. Reduce Water Pump Impeller Size
4. Automatically Control Chilled Water Supply Temperature
5. Operate more number of Cooling Tower
6. Install Automatic Tube Cleaning Device to Clean Condenser Tube
7. Share Cooling Demand with more Variable Speed Driven Chillers or Oil-free Chillers
8. Share Cooling Demand with lesser Constant Speed Driven Chillers
9. Automatically Control Fresh Air Intake
10. Free Cooling
11. Reduce Differential Pressure Setting of Variable Speed Driven Chilled Water Pump
12. Reduce Air Duct Static Pressure Setting of Variable Speed Driven Air-Handling Unit (AHU)





## **Priority will be given to buildings fulfilling the following criteria:**

- Buildings with multi-ownership;
- Projects with higher energy saving cost effectiveness;
- Ageing buildings;
- Conducted energy audit or similar assessment before (e.g. EU part of BEAM Plus EB);
- New technology demo project or showcase project which will allow public visits;
- Good history of previous applications



**Higher subsidy percentage will be offered to higher energy saving and/or shorter completion period.**

## Funding to Residential Building or SMEs

Project Type	Completion period after project approval	Subsidy (project cost)
Retrofitting Project with Higher Energy Efficiency (e.g. Lighting, Air-conditioning)	<9 months	50%
	≥9 – <18 months	40%
	≥18 – <24 months	35%
Retrofitting Project with Low energy Energy Efficiency (e.g. Lift, Escalator, Pump, etc.)	<9 months	30%
	≥9 – <18 months	25%
	≥18 – <24 months	20%
Retro-commissioning or implementation of smart / IT technologies #	<9 months	\$0.9/kWh
	≥9 – <18 months	\$0.8/kWh
	≥18 – <24 months	\$0.7/kWh

\*Coefficient of Performance of the new chiller(s) is 10% better than that stipulated in the prevailing Building Energy Code (for whole project completed on or after 24 May 2021)

# The subsidy amount shall not exceed the project cost

### Subsidy Cap

**HK\$300,000**

cap/building/year,  
HK\$1m/application, whichever  
is lower

**HK\$400,000**

(1) For chiller replacement project\* with new COP exceeds latest BEC by 10%

(2) For chiller replacement projects completion date is within the same year of approval

### Limited Special Offer

Subsidy Cap

**+HK\$100,000**

Achieving both conditions 1 and 2 above



**Higher subsidy percentage will be offered to higher energy saving and/or shorter completion period.**

## Funding to BT/LPT Large Business Customers

Project Type	Completion period after project approval	Subsidy (project cost)
Retrofitting Project with Higher Energy Efficiency (e.g. Lighting, Air-conditioning)	<9 months	40%
	≥9 – <18 months	30%
	≥18 – <24 months	25%
Retrofitting Project with Low energy Energy Efficiency (e.g. Lift, Escalator, Pump, etc.)	<9 months	20%
	≥9 – <18 months	15%
	≥18 – <24 months	10%
Retro-commissioning or implementation of smart / IT technologies #	<9 months	\$0.9/kWh
	≥9 – <18 months	\$0.8/kWh
	≥18 – <24 months	\$0.7/kWh

\*Coefficient of Performance of the new chiller(s) is 10% better than that stipulated in the prevailing Building Energy Code (for whole project completed on or after 24 May 2021)

# The subsidy amount shall not exceed the project cost

### Subsidy Cap

**HK\$250,000**

cap/building/year,  
HK\$1m/application, whichever  
is lower

**HK\$350,000**

(1) For chiller replacement project\* with new COP exceeds latest BEC by 10%

(2) For chiller replacement projects completion date is within the same year of approval

### Limited Special Offer

Subsidy Cap

**+HK\$100,000**

Achieving both conditions 1 and 2 above



## Number of bids required for tender

Project Amount	Number of Bids required
>\$5,000 - <\$10,000	2
≥\$10,000 - <\$200,000	3
≥\$200,000	5





**Given:**

- Building Type: Commercial
- Tariff Type: SMEs
- Project Completion: < 9 months after approval

➤ Subsidy for Lighting: HK\$90,000 x 50%	HK\$45,000
➤ Subsidy for Chiller: HK\$500,000 x 50%	HK\$250,000
<hr/>	
<b>Total Subsidy:</b>	<b>HK\$295,000</b>



## Tips on Application

- May engage a Qualified Service Provider (QSP) and/or Energy Saving Facilitator (ESF) to support the application
- Minimum number of bids is required
- Improvement works must be completed no more than 24 months after approval



# CLP Eco Building Fund Successful Cases

# Successful Case – Lighting Replacement



Customer looked for quick win solutions

CLP offered a free energy audit

Customer applied for Eco Building Fund

Customer replaced existing lighting to LED

Customer received funding 50% project sum



Energy Saving  
≈130,000kWh  
Payback in  
4 months

We help our customers to implement quick win projects to reduce operating cost!

# Successful Case – Knowledge-based Chiller Plant Optimization



Customer looked for IoT solutions for chiller plant

CLP shared market available solutions

Customer applied for Eco Building Fund

Customer implemented optimisation solution

Customer received full subsidy for the project

## Project Highlights:

- It's a **new built shopping mall**
- The solution provides **continuous data analysis** and **automatic control** of system operations to achieve **optimum chiller system efficiency**
- Annual **energy saving**  $\approx$  250,000 kWh (**5% of A/C consumption**)
- Project cost  $\approx$  \$170,000 (**100% subsidised by Eco Building Fund**)



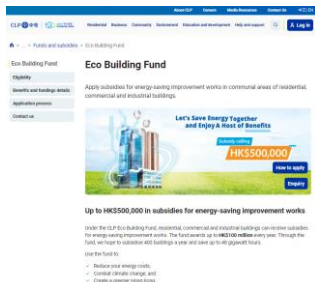
Even new building can achieve significant energy saving!

# CLP Eco Building Fund Promotions & Facilitations

# Full Range of Promotions of CLP Eco Building Fund



- CLP Webpage
- eDM
- CLP Youtube
- Facebook
- LinkedIn
- eNewsletter
- Bill insert
- Commerce Chambers
- Professional Institutions



# Additional Support to Customers



Pledge

Equip

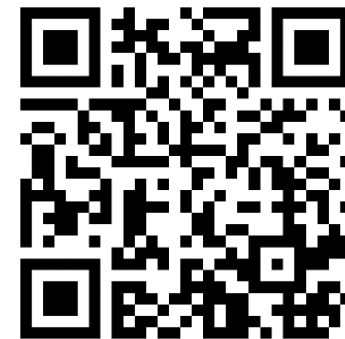
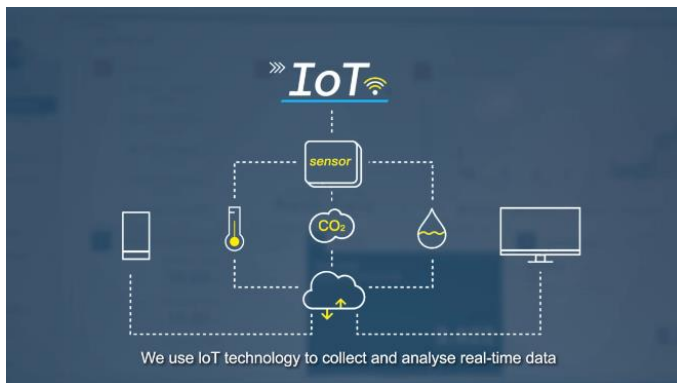
Implement

- Offer free retro-commissioning training
- Provide technical and financial support

Supported by:



# Smart Energy Award – Winner's Showcase



Video Link

Thank You