

CLP Power Hong Kong Limited

New Initiatives under the New Scheme of Control Agreement

1. The new Scheme of Control Agreement (SCA) between CLP Power Hong Kong Limited (CLP Power) and the Hong Kong SAR Government will come into effect on 1 October 2018. Under the agreement, CLP Power will launch a number of new initiatives to encourage the community to embrace low-carbon lifestyles by promoting the development of renewable energy (RE) and energy conservation, which marks another milestone for CLP Power in its movement towards a greener, low-carbon economy.
2. In support of the Government's long-term environmental policy and its carbon reduction target set under the *Hong Kong's Climate Action Plan 2030+*, CLP Power is increasing the use of natural gas for power generation and introducing a range of new energy saving initiatives for its customers in addition to the safe and reliable electricity supply it delivers.
3. CLP Power has been encouraging its residential and business customers and the Hong Kong community at large to use energy more efficiently and change their behaviour so that they save energy and help to create a better environment. CLP Power adopts a four-pronged approach in changing people's habits and helping them to reduce the energy they use. These steps are: (1) Educating the public; (2) Providing customers with information and energy-saving tips; (3) Equipping customers with tools and technical support; (4) Helping with enablers to make greater energy efficiency possible.
4. New initiatives including Feed-in Tariff (FiT), Renewable Energy Certificates (RECs), the new CLP Eco Building Fund and CLP Community Energy Saving Fund will be introduced in response to the views from our customers, green groups and the wider community for promoting the development of RE and further expanding the work in driving energy efficiency and conservation, as well as to enhancing public education. The objective is to encourage customers to make RE and energy saving an essential part of their daily lives. CLP Power looks forward to seeing these joint efforts leading Hong Kong towards a new era of low-carbon living.
5. This paper aims to brief Members in more detail on these initiatives, together with the arrangements for their implementation in the new SCA period.

Feed-in-Tariff (FiT) Scheme

The FiT Scheme encourages the development of RE by allowing customers to connect RE systems to the grid and sell the electricity generated back to CLP Power at favourable rates.

<p>Key Features</p>	<ul style="list-style-type: none"> • The FiT Scheme is applicable to electricity produced by solar or wind power systems. • FiT payments will be made for RE generation once a project is approved and connected to CLP's power grid. Electricity consumed on the participating customer's premises will be charged at prevailing tariff rates. • FiT rates will be higher than the prevailing tariffs to incentivise RE investment and will be paid at three levels depending on the capacity of the RE system. <table border="1" data-bbox="531 943 1337 1122"> <thead> <tr> <th>RE system capacity</th> <th>FiT rate (per unit)</th> </tr> </thead> <tbody> <tr> <td>≤10kW</td> <td>HK\$5</td> </tr> <tr> <td>>10kW to ≤200kW</td> <td>HK\$4</td> </tr> <tr> <td>>200kW to ≤1MW</td> <td>HK\$3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Once agreed, FiT rates will apply for the lifetime of the project up to the end of 2033. • FiT rates for new applications may change from time to time, as agreed with the Government. The new rates will apply to new RE systems. • Once the FiT Scheme comes into effect, the payback period for RE system investment is expected to be shortened to around 10 years. 	RE system capacity	FiT rate (per unit)	≤10kW	HK\$5	>10kW to ≤200kW	HK\$4	>200kW to ≤1MW	HK\$3
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≤10kW	HK\$5								
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<p>Launch Date</p>	<ul style="list-style-type: none"> • 1 October 2018 								
<p>Application Date</p>	<ul style="list-style-type: none"> • From 4 May 2018 								

Renewable Energy Certificates (RECs)

Residential and commercial customers who support clean energy will be able to buy RECs which represent electricity generated by local RE systems, providing a positive platform for RE development in the community.

Key Features	<ul style="list-style-type: none"> • RECs represent units of electricity produced by local RE sources including solar, wind, and waste-to-energy whether purchased (e.g. through FiT) or generated by CLP Power. • CLP Power’s initial thinking is to make available RECs for sale to any CLP Power customer at a minimum of 100kWh, through the payment of a premium on top of the normal price of a unit of electricity. • Discussions are being held with Government to set the initial price for RECs. • The number of RECs available for sale will match the amount of electricity generated by local RE systems or generated by CLP Power over a period of time. • Revenue generated by RECs will contribute towards the cost of purchasing local RE, thus helping to minimise the costs of electricity as a whole.
Launch Date	<ul style="list-style-type: none"> • 1 October 2018

New CLP Eco Building Fund

Key Features	<ul style="list-style-type: none"> • The existing CLP Eco Building Fund will be modified and further extended to cover residential, commercial and industrial buildings. • The funding will be increased to HK\$100 million each year to carry out the energy efficiency improvement works of the communal areas of the buildings. • A vetting committee comprising representatives from different sectors that have keen interest in promoting energy efficiency will be set up.
Launch Date	<ul style="list-style-type: none"> • 1 October 2018
Application Date	<ul style="list-style-type: none"> • Available for application from 4 May 2018

CLP Community Energy Saving Fund

Key Features	<ul style="list-style-type: none"> • 65% of the incentives earned from achieving energy saving targets that CLP Power entitles will be allocated to the Fund. • The Fund will support the following initiatives: <ul style="list-style-type: none"> ○ To launch CLP Power Connect Programme, the largest single energy efficiency and conservation campaign ever launched in Hong Kong to encourage residential customers to save energy while CLP Power will offer financial assistance to disadvantaged groups at the preference of the customers; ○ To offer rebates to commercial and industrial customers to replace or upgrade more energy-efficient electrical appliances; ○ To support the disadvantaged, including subdivided flat tenants by carrying out rewiring work for meter installation, and providing other assistances for the most needy tenants who may not have benefited from the rewiring programme.
Launch Date	<ul style="list-style-type: none"> • January 2019
Application Date	<ul style="list-style-type: none"> • Details to be announced in mid-2018

New Arrangement for Fuel Cost Adjustment

Key Features	<ul style="list-style-type: none"> • The Fuel Cost Adjustment in the Total Tariff will be revised more frequently from once a year to once a month. • The new arrangement will be more transparent and will react to fuel price changes in a timelier manner. • The annual Tariff Review exercise continues to be in place and a Fuel Cost Adjustment would be set based on a projection of fuel prices for the following year. • Under the new mechanism, the monthly adjustment would be based on the average actual fuel prices over the preceding three months as compared to the fuel prices projected to make adjustment automatically. The Fuel Cost Adjustment will be announced on CLP website on a monthly basis and in electricity bills to increase transparency.
Launch Date	<ul style="list-style-type: none"> • 1 October 2018

Energy Audits

Key Features	<ul style="list-style-type: none">• CLP Power will quadruple the number of audits it offers to commercial and industrial customers from 150 to 600 a year.• CLP Power's energy audits are comprehensive assessments of how energy is used in customers' premises. They aim to identify Energy Saving Opportunities (ESOs) for proposing cost-effective energy saving projects for customers. CLP Power will then work to help bring these projects to fruition.• Target to help customers achieve a saving of 48 GWh of electricity each year.
Launch Date	<ul style="list-style-type: none">• 1 October 2018

6. CLP Power will closely monitor the progress of each initiative to ensure its smooth implementation and listen closely to customers' feedback to achieve ongoing improvements and enhance customer experience.

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Annexes

Annex A	Feed-in-Tariff Scheme and Renewable Energy Certificates
Annex B	New CLP Eco Building Fund
Annex C	CLP Community Energy Saving Fund
Annex D	New Arrangement for Fuel Cost Adjustment
Annex E	Renewable Energy Projects in CLP's Supply Area
Annex F	CLP's Energy Efficiency & Community Care Programmes

CLP Power Hong Kong Limited
23 April 2018

Fact Sheet
Feed-in Tariff Scheme and Renewable Energy Certificates

Background

- CLP Power Hong Kong Limited (CLP Power) is committed to encouraging community participation in the development of renewable energy (RE). In support of the Government’s environmental policy to address climate change, CLP Power is introducing a Feed-in Tariff (FiT) Scheme and Renewable Energy Certificate (RECs) to encourage low-carbon living and develop RE under the company’s new Scheme of Control Agreement.
- CLP Power has been providing consultancy and technical help to those who are interested in adopting RE in the community, including a dedicated hotline, grid connection support service and a streamlined application process. About 300 RE systems are now connected to CLP Power’s grid.

Feed-in Tariff Scheme

- The FiT Scheme is applicable to electricity produced by solar or wind power systems with a generating capacity of up to 1 MW.
- CLP Power will purchase the electricity produced by an approved RE system once it is successfully connected to the company’s power grid. A smart meter will be installed to record the amount of electricity generated by the RE system. The FiT rate will be the same for both solar and wind power systems.
- The FiT Scheme is offered at three payment levels dependent on the capacity of the RE system:

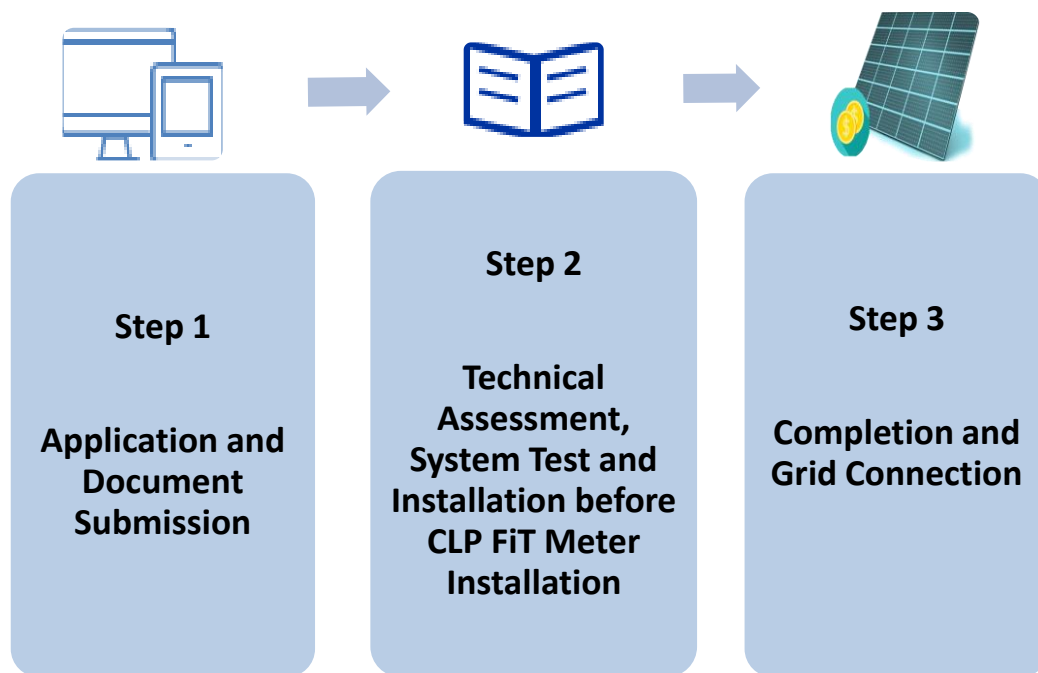
Capacity of the RE system	FiT rate (per unit)
≤ 10kW	HK\$5
> 10kW to ≤ 200kW	HK\$4
> 200kW to ≤ 1MW	HK\$3

- The FiT Scheme will be effective from 1 October 2018. Once a RE system successfully enters the FiT Scheme, the FiT rate at that time will apply for all electricity generated during the entire project technical lifetime or until the end of the Scheme of Control Agreement on 31 December 2033, whichever is earlier.
- FiT rates for new applications may change from time to time as agreed with the Government. The new rates will apply to new RE system applications after the effective date of change.
- The FiT Scheme will be open to any non-governmental organisations or individuals who are CLP Power’s customers and who are planning to install embedded distributed solar or wind RE systems at their premises with a generating capacity of up to 1MW. The scheme will also be open to such projects commissioned before 1 October 2018 that are connected to CLP Power’s grid.
- Payment will be made for all units of electricity generated by the distributed RE system and metered by CLP Power. Any units of the electricity actually used at the premises would be charged at prevailing tariff rates.

- FiT rates have been agreed with the Government to enable distributed RE system owners to recover the cost of the system, including installation, operation and maintenance, in an estimation of around 10 years.

Application procedures

- Application forms and information will be available on the CLP website and CLP app from 4 May 2018.
- For enquiries, customers may call the hotline at 2678-0322.
- Customers should be in full compliance with all applicable laws and regulations during RE system installation.



Support offered by CLP Power

- CLP Power will provide information to customers. RE promotions will also be launched through the CLP website, CLP app, and social media, as well as through advertisements, leaflets, and emails to help customers understand the system installation and FiT application procedures.
- Roadshows will be organised to increase public awareness. CLP Power will also provide information to property management companies.
- CLP Power will work with the Government and industry organisations to offer technical workshops for contractors and to provide technical support to customers. This will support RE system design, installation, and grid connection.
- Customers will be offered a simplified grid connection process with no application fee.
- Customers can find more technical information on the Electrical and Mechanical Services Department website under the heading “Technical Guidelines on Grid Connection of Renewable Energy Power Systems”.

Example Case

- A solar system with a capacity of about 1kW in Hong Kong should generate around 1,000 units of electricity a year.

An example of a solar system in a typical village house	
Rooftop area	700 square feet
Number of solar panels installed	12 (one third of the total rooftop area)
RE System capacity	Around 3 kW
Estimated annual RE electricity generated	Around 3,000 units
Applicable FiT rate	HK\$5 per unit
Estimated annual FiT earning	Around HK\$15,000
Estimated system construction cost	Market rate ranges from around HK\$90,000 to HK\$150,000
Payback period	Approximately 10 years

Renewable Energy Certificates (RECs)

- CLP Power will issue RECs to enable residential or commercial customers who support clean energy to use electricity generated by local RE systems, providing another participation platform for RE development in the community.
- Each REC represents electricity produced by a mixture of RE sources in Hong Kong including solar, wind, and waste-to-energy projects, whether purchased (e.g. through FiT) or generated by CLP Power.
- CLP Power's initial thinking is to make available RECs for sale to any customer at a minimum of 100 units of electricity, through the payment of a premium on top of the normal price of a unit of electricity.
- The quantity of RECs for sale will be matched by the quantity of RE generated or purchased by CLP Power, over a period of time. Revenue raised from the sale of RECs will contribute towards the cost of purchasing local RE, thus helping to minimise the costs of electricity as a whole.
- CLP Power is in discussion with the Government on the price of RECs. Details will be announced in the third quarter this year.

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**Fact Sheet
New CLP Eco Building Fund**

Background

- Buildings consume 90% of the electricity used in Hong Kong. Improving the energy efficiency of buildings not only helps reduce energy costs but also combats climate change and helps create a greener city.
- CLP Power is fully committed to the promotion of energy efficiency. In 2014, we launched the CLP Eco Building Fund to help eligible residential buildings carry out energy efficiency improvement works. Up to March 2018, the fund has approved 145 applications covering more than 400 residential buildings, awarding around HK\$64 million in subsidies and saving electricity equivalent to the annual energy consumption of some 4,600 households.
- Under the new Scheme of Control Agreement (SCA), CLP Power will extend the scope of the existing CLP Eco Building Fund and cover commercial and industrial buildings as well as residential buildings.

Fund Allocation

- The newly launched CLP Eco Building Fund will have HK\$100 million to award each year.
- Grants will be allocated to residential, commercial and industrial buildings to carry out energy efficiency improvement works for communal areas, including retrofitting projects, retro-commissioning services, and the implementation of smart technology in building services. A greater share of the fund will be allocated to residential buildings and commercial and industrial buildings used by small and medium-sized businesses.
- The fund aims to subsidise 400 buildings a year, saving an annual 48 GWh. Subsidies for retrofitting projects will account for up to 50% of the expenditure of the works and will be awarded according to the type of building, the type of installation, and the project duration.
- The amount of subsidy for retro-commissioning services and the implementation of smart technology in building services will depend on the amount of energy that will be saved and the project duration. The more energy an application will save and the sooner the project will be completed, the greater the subsidy will be.
- Applications will be approved on a first come, first served basis.
- A vetting committee comprising representatives from different sectors of the community that have keen interest in energy efficiency, including Government departments, engineering professionals, and representatives from green groups, non-government organisations, academic institutes, and district councils will be set up.

Beneficiaries

- Residential, commercial and industrial buildings in the CLP Power supply area.

Eligibility

- Residential, commercial and industrial buildings in the CLP Power supply area are eligible to apply. Government buildings, and estates that are more than 50% owned by the Hong Kong Housing Authority or Hong Kong Housing Society are not eligible.
- Organisations eligible to apply for grants from the fund include:
 - Owners' corporations registered under the Building Management Ordinance (Cap. 344)
 - Owners' organisations (e.g. Owners' committees)
 - Residents' organisations (e.g. Mutual aid committees)
 - For those buildings without one of the organisations mentioned above, an authorised owner of the building can be appointed as representative
 - Owners of commercial and industrial building with single ownership
 - An authorised property management company or a Qualified Service Provider (QSP)
- Energy efficiency improvement works for communal use which are eligible for funding include:
 - 1) Retrofitting projects: Building services installations including lighting, air-conditioning, lifts and escalators, and electrical installations (e.g. water pumps).
 - 2) Retro-commissioning services such as adjustments to the settings or controls of air-conditioning systems.
 - 3) Implementation of smart technology in building services, such as the installation of systems to monitor and control the operations of building services installations.
- Applicant organisations should engage a QSP to set out the project scope, prepare funding application documents, and monitor project implementation.
- Multiple applications are allowed. Improvement works must be completed no more than 24 months after approval.

Application Details

- Application procedures and forms are available on the CLP Power website (www.clp.com.hk/ecobuildingfund). Applications can be made from 4 May 2018. Funding will be expected to be approved for completed projects from October 2018 onwards.
- Enquiry hotline: 2678 0322

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Fact Sheet
CLP Community Energy Saving Fund

Background

- CLP Power is committed to promote energy efficiency and conservation and to work towards a greener Hong Kong, in support of the Government's goals of reducing the city's energy consumption and carbon intensity.
- Under the new Scheme of Control Agreement (SCA), 65% of the incentives earned from the number of energy audits conducted and energy saving achieved from audit as well as the new CLP Eco Building Fund will be allocated to a new CLP Community Energy Saving Fund (CESF), encouraging the community to pursue energy saving and conservation, promoting the use of energy-efficient electrical appliances as well as supporting disadvantaged groups.

An Introduction to the CESF

- The CESF will support the following initiatives:
 1. **CLP Power Connect Programme**

This will be the largest energy efficiency and conservation campaign ever launched in Hong Kong to encourage residential customers to achieve energy saving. It offers rewards to encourage residential customers to save energy at specific times of the year. Participating customers may also choose the disadvantaged groups they want to support. In partnership with non-governmental organisations (NGOs), CLP Power will offer financial assistance to disadvantaged groups with the allocation of funding.
 2. **Product Purchase Scheme**

CLP Power will offer rebates to commercial and industrial customers, in particular small and medium-sized enterprises, to replace or upgrade their electrical appliances to more energy-efficient models, such as LED lamps and air-conditioners with a Grade 1 energy efficiency rating.
 3. **Support to the disadvantaged**

A new programme will be introduced to support the disadvantaged, including partnering with NGOs to carry out rewiring work for installation of individual electricity meters for the tenants of sub-divided flats, and other forms of assistance for the most needy tenants who may not have benefited from the rewiring programme.
- CLP Power will continue to gauge the views of stakeholders on details of the programmes and work closely with NGOs involved in CLP Power Connect as well as the assistance programme for disadvantaged groups.
- A review of the initiatives will be conducted after one year to consider possible improvements.

Beneficiaries

- Residential customers, commercial and industrial customers, and disadvantaged groups including tenants of sub-divided flats in the CLP Power supply area.

Implementation

- Details of the CESF will be announced in mid-2018. The initiatives will be launched in January 2019.

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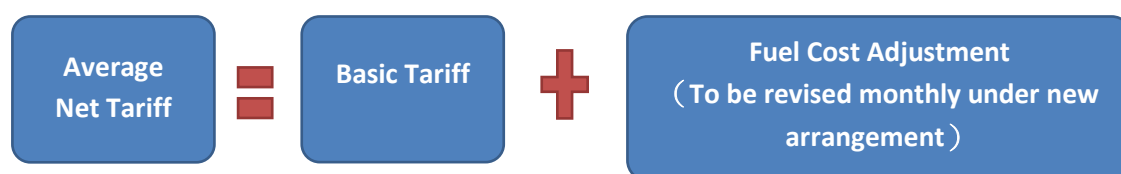
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New arrangement for Fuel Cost Adjustment

Background

Electricity bills from CLP Power Hong Kong Limited (CLP Power) are made up of two components: The **Basic Tariff** and the **Fuel Cost Adjustment**. In the annual tariff review, the Fuel Cost Adjustment is set using a projection of fuel prices for the following year.

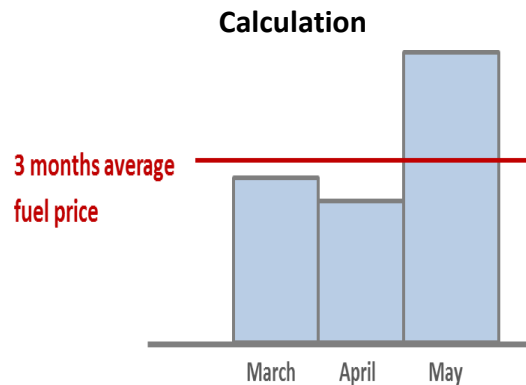
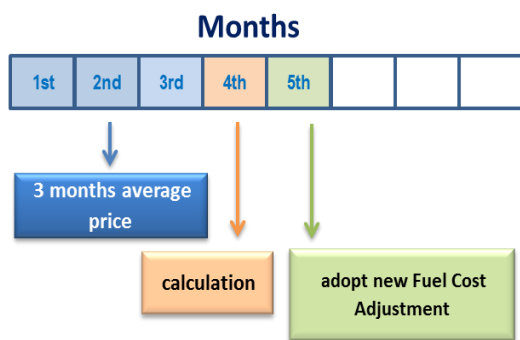
After the new Scheme of Control Agreement (SCA) comes into effect on 1 October 2018, the annual review mechanism will remain, and the Fuel Cost Adjustment in the tariff package will continue to be set based on a projection of fuel prices for the following year. The Fuel Cost Adjustment, however, will be revised automatically during the year on a monthly basis to take into account the actual prices of fuels used. The new arrangement will be more transparent and will react to fuel price changes in a more timely way.



New Arrangement for Fuel Cost Adjustment

Under the new arrangement, the monthly **Fuel Cost Adjustment** will be calculated based on the average actual fuel prices over three preceding months as compared with the fuel prices projected at the most recent tariff review. The revised Fuel Cost Adjustment will be applied the following month after a process of data collection and verification. For instance, actual prices of fuels consumed between March and May will be collected and verified in June and the adjustment will be applied in July.

Example



Key features

- The Fuel Cost Adjustment will continue to be set based on a projection of fuel prices during the tariff review; but it will no longer be charged at a single level throughout the year.
- The new arrangement will reflect fuel price changes in a timelier manner.
- The three-month average calculation will help smooth out any impact from short term fuel price volatility.
- The level of the Fuel Cost Adjustment will be announced on a monthly basis on the company website and in electricity bills to increase transparency.
- The new mechanism has been created with reference to the established practices in nearby cities and territories to ensure it is in line with market practice.

Example

- A customer consumes 500 units of electricity in July. The Fuel Cost Adjustment in the customer’s bill will be calculated differently under the new arrangement, taking into account the actual price of fuel from March to May as well as the annual projection. Below is an example of how the new calculation might affect the customer’s bill:

	Set price throughout the year	Changes under the new arrangement
Fuel Cost Adjustment	22 cents	18.2 cents (3.8 cents less)
Fuel Cost Adjustment of 500 units of electricity consumption	\$110	\$91 (\$19 less)

- Because the new arrangement takes into account fluctuations in international fuel prices, customers can expect to see monthly rises and falls in the level of the Fuel Cost Adjustment.

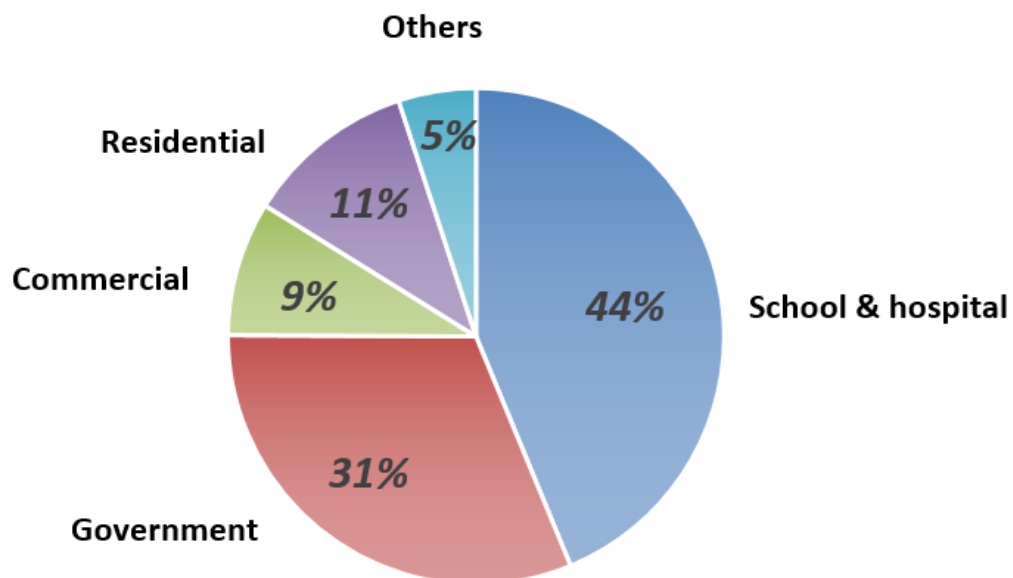
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Fact Sheet
Renewable Energy Projects in CLP's Supply Area




Despite limited renewable energy (RE) resources and land scarcity in Hong Kong, CLP Power Hong Kong Limited (CLP Power) has been actively exploring practicable RE opportunities. We provide technical support, a simple procedure and grid connection advice for local RE projects of different scales. In addition, we provide back-up electricity supply for these systems so that customers could enjoy clean electricity from renewable sources without sacrificing power supply reliability.




Currently about 300 RE systems are connected to CLP Power's grid. Of these, schools and government projects take up the largest share, while residential projects account for around 10%. Solar power is the most popular technology used.



An overview of RE Projects Connected to CLP Power's Grid



Examples of RE Projects in CLP Supply Area

Projects	Key Information	Images
<p>T-PARK – the sludge treatment facility in Tuen Mun</p>	<ul style="list-style-type: none"> • The first large-scale, waste-to-energy project by the Government which recovers heat energy from the incineration process to generate electricity to support the daily operation of the facility. Surplus electricity is exported to CLP Power’s grid • The facility was commissioned on 1 April 2015. It can provide surplus power of up to 2 MW 	
<p>Siu Ho Wan Sewage Treatment Works of Drainage Services Department</p>	<ul style="list-style-type: none"> • The largest solar farm in Hong Kong with over 4,200 polycrystalline photovoltaic panels installed in an area of about 11,000 sqm • The solar farm was built by CLP Engineering and connected to the grid • The system can generate as much as 1.1 million kilowatt-hours of electricity annually to meet about a quarter of the facility’s annual electricity demand, which is equivalent to that of 230 households for one year. The system will help reduce 770 tonnes of carbon dioxide emissions 	
<p>Landfill Gas Power Generation at West New Territories (WENT) Landfill (under development)</p>	<ul style="list-style-type: none"> • It is Hong Kong’s largest landfill gas power generation project and is under development • The system is planned for two phases. With a generation capacity of 10MW or 68 million kWh, the system could meet the electricity demand of 17,000 four-person households for one year when phase 1 completed • Phase 2 will be proceeded subject to the capacity of landfill gas with a generation capacity of 4MW, or 27.2 million kwh 	

Projects	Key Information	Images
Town Island RE Supply Project	<ul style="list-style-type: none"> • Hong Kong’s first commercial-scale standalone RE generation and storage system developed by CLP Power to power a non-profit drug rehabilitation centre on the island run by Operation Dawn • Comprising 672 solar panels, two wind turbines and 576 batteries, the system has a generation capacity of up to 192 kW. The batteries are capable of storing over 1,000 kWh for the rehabilitation centre’s use lasting for around 30 hours • The project was named one of the “Hong Kong People Engineering Wonders in the 21st Century” in 2013 	
Blessing Farm in Fanling	<ul style="list-style-type: none"> • The farm has installed 12 highly efficient thin film photovoltaic solar panels with grid connection. The system supports the lighting and irrigation facilities in the Farm • The panels can generate more than 1,500 kWh of electricity a year, equivalent to about 10% of electricity consumption of the Farm. They reduce carbon dioxide emissions by around 750 kg 	
Outward Bound Hong Kong	<ul style="list-style-type: none"> • An integrated photovoltaic and hot water system was upgraded. The heat exchangers embedded in the solar panels absorb heat from the sun, pre-heat the water to optimal temperature, and then store it in the tanks. The water is later transferred to electric heaters in the dormitories • The system can generate more than 1,400 kWh of electricity per year and reduce around 700 kg of carbon dioxide emissions 	

Projects	Key Information	Images
<p>Chinese YMCA of Hong Kong - New Territories Centre</p>	<ul style="list-style-type: none"> • An integrated photovoltaic and hot water system was upgraded. The heat exchangers embedded in the solar panels absorb heat from the sun, pre-heat the water to optimal temperature, and then store it in the tanks. The water is later transferred to electric heaters in the swimming pool to warm up the pool water • Can generate more than 2600 kWh of electricity and reduces around 1.3 tonnes of carbon dioxide emissions per year 	
<p>Diocesan Boys' School Primary Division</p>	<ul style="list-style-type: none"> • The school has the solar PV system installed in 2014. It provides more than electricity but also a practical educational kit for its students. It goes beyond solar power and also has a small scale wind turbine built – one of the most popular renewable energy resources in the world 	

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CLP Power Hong Kong Limited
April 2018

Fact Sheet
CLP's Energy Efficiency & Community Care Programmes

Introduction

- CLP Power is firmly committed to energy efficiency and conservation. We encourage our residential and business customers and the Hong Kong community at large to use energy more efficiently and change their behaviour so that they save energy and help to create a better environment.
- We adopt a four-pronged approach in changing people's habits and helping them to reduce their energy consumption. These steps are:
 - Educating the public;
 - Providing customers with information and energy-saving tips;
 - Equipping customers with tools and technical support;
 - Helping with enablers to make greater energy efficiency possible.
- We are committed to doing all we can to help our customers and our city move towards a low-carbon lifestyle that will improve our environment for future generations. The following summarises the scale and variety of CLP Power's commitments to help our residential and business customers and our city move towards an energy-efficient lifestyle.

1. Public Education

- ***Power Your Love Programme***
The programme encourages CLP Power residential customers to save energy and transfer the electricity saved to help offset the electricity bills of households in need, reducing their electricity expenses. Electricity saved by participating residential customers in the past three years totalled 30 million kWh. Each year, around 20,000 households in need have benefited from the programme, amounting to 60,000 households over the past three years with each household receiving HK\$300 of subsidy.

- ***POWER YOU Kindergarten Education Kit and related outreach activities***

The education kit is an innovative public education initiative for kindergarten students that aims to spark interest among them in the work of electricity, to give them a basic knowledge about energy and teach them good habits in energy efficiency. CLP Power is the first commercial company in Hong Kong providing a comprehensive tool kit for 1,000 kindergartens for free.

So far, 85% of the schools are using the Kit in the 2016/17 academic year, reaching around 153,000 children.

To further promote EE&C to the public, youth, local community groups and NGOs with the use of the education kit, CLP Power developed the “Please Come and Save the Earth” theme song and organised a music contest to raise public awareness. It attracted 170 teams and some 1,700 contestants coming from different nationalities, social backgrounds and ages to perform the theme song in very creative genres.

To inspire students to develop an interest in engineering, we arranged visits by our Graduate Trainees to kindergartens, meeting more than 2,700 children from 28 schools up to January this year. In response to positive feedback from teachers, CLP Power has scheduled more visits and it is expected to cover around 1,000 kindergartens throughout Hong Kong within two years.

- ***Green Studio***

The Green Studio is the first mobile classroom equipped with 4D movie and AR educational games to deliver environmental protection messages to primary school students and local communities in Hong Kong since 2009 reaching out to over 150,000 visitors.

In 2017, a new multi-purpose vehicle was launched to partner with the Green Studio to reach out to a wider audience. Equipped with upgraded 4D movie and 3D interactive games, the new vehicle can be transformed into an open stage platform to facilitate the delivery of a fun and engaging experience focused on energy efficiency and conservation. In 2017, the multi-purpose vehicle and the Green Studio together welcomed over 24,000 visitors.

- ***Green Elites Campus Accreditation Programme***

The programme provides primary students and teachers of over 50 schools since it launched in 2014/15 to apply green tips in their daily lives through educational materials, visits, talks and workshops etc. The Green Elites Portal, an online platform, has been opened to all students as well as the public to learn green habits in a fun way through games and interactive content.

- ***Engineer in School programme***
 It provides secondary school students with a better understanding of Hong Kong's energy industry and the power supply system in particular. It also educates them on the importance of environmental protection and energy conservation and career potentials through job shadowing, day camps and school talks. Over 10,000 junior secondary school students have taken part in the programme in the last two years.
- ***The LS-energy HK e-learning Portal***
 A comprehensive one-stop Liberal Studies e-learning kit for the "Energy Technology and the Environment" module in the senior secondary Liberal Studies programme was launched since 2011. Experts from the education sector, academia and government are invited to develop this free platform to better facilitate students' learning process.
- ***Energy Innovation for Smart City Competition (previously named Energy Innovation Project Competition)***
 Launched with the Electrical Division of the Hong Kong Institution of Engineers in 2009, the competition aims to raise awareness of energy efficiency and conservation among secondary students, and introduce innovative projects for promoting energy saving and energy efficiency to the community. The competition has so far sponsored over 290 projects for secondary schools.

2. Information

- ***Meter Online***
 Equipped with smart meters, business customers can have a better understanding of the energy consumption of their operations via the Meter Online platform. The digital platform, which is free and easy-to-use, helps businesses analyse their energy use, reduce consumption and enhance energy efficiency.
- ***Energy use information on electricity bills***
 CLP Power provides customers with a graphical summary of their electricity consumption data in their electricity bills. This enables them to have better understanding of their daily consumption comparison and carbon emission per unit of electricity used.
- ***Energy Savings Information on CLP website***
 Customers can review their energy saving information online and learn savings tips through the CLP website, enabling them to live a greener life style and enhance energy efficiency at home.
- ***Green Enterprise Info Pack***
 Business customers are provided with a handy green info pack when they open a new business electricity supply account. The info pack provides information such as the use of energy efficient appliances, energy saving tips and case sharing.

3. Tools/ Support

▪ ***Eco Power 360***

Eco Power 360 is an online assessment tool, which allows customers to compare their electricity consumption against neighbouring households with similar consumption patterns. It provides consumption projection and recommendations to help customers save energy. All 2.2 million CLP residential customers can make use of this internet platform and receive energy saving recommendations by email on a bi-monthly basis.

▪ ***Eco Rewards Scheme***

The Eco Rewards Scheme aims to encourage customers to save energy, support environmental conservation and live a greener lifestyle through interactive and creative approaches. Customers who participate in green activities can earn Eco Points for gift redemption.

▪ ***CLP App***

The CLP App is a brand new mobile platform that provides customers with green living ideas wherever they go. Through the App, customers can manage their electricity accounts, payment and billing while they are on-the-go, and redeem gifts using their Eco Points under the Eco Rewards Scheme. The App also enables quick access to useful information such as locations of CLP Customer Service Centre, hotlines, and information on nearby charging facilities for electric vehicles.

▪ ***CLP Eco Home***

The CLP Eco Home in Mongkok is the first one-stop green living concept store in Hong Kong, which enables CLP customers to learn more about up-to-date green initiatives and keep abreast of energy saving technologies. In 2015, CLP Power extended the Eco Home concept to Tai Po, bringing smart, green ideas to the residents in the New Territories.

▪ ***Smart Energy Experience Centre***

The Yuen Long customer service centre has undergone a major facelift and transformed into a Smart Energy Experience Centre. Through partnership with the Hong Kong Science and Technology Parks Corporation and adoption of innovative technology developed by local start-up companies, the centre introduces smart home devices and smart business solutions, aiming to promote smarter, low-carbon lifestyles to customers.

▪ ***GREEN^{PLUS} Programme and GREEN^{PLUS} Experience Centre***

The GREEN^{PLUS} programme supports business customers through tailor-made energy saving solutions, enhancing their awareness on energy saving and addressing obstacles they may experience in implementing energy saving measures. Over 9,000 customers have joined the programme since its launch in 2010. Customers can typically achieve 10-20% savings annually if they implement CLP Power's recommended energy saving measures. The GREEN^{PLUS} Award Programme was launched in 2012 to recognise business customers who have outstanding achievements in energy saving.

Located in Shamshuipo, the GREEN^{PLUS} Experience Centre provides a platform for SMEs to experience the benefits of energy efficiency and conservation in an interactive and innovative environment through the use of the latest technology and motion-sensing interactive exhibits. It showcases a typical set of different SME trades such as retail and catering outlets, as well as offices, allowing visitors to experience practical and affordable energy saving solutions that are applicable in their own business operations.

- **GREEN^{PLUS} Energy Billboard**

GREEN^{PLUS} Energy Billboard is an online benchmarking tool, offering business customers the convenience to compare average monthly energy performance among outlets of their chain stores or companies across their business as well as against industry norms. The tool helps business customers manage their electricity consumption and save operational costs.

- **Eco Ambassadors**

Eco Ambassadors share energy efficiency tips and introduce eco products to CLP customers. They also participate in talks organised by the Government and business organisations, and sharing experiences through their blogs.

4. **Enablers**

- **CLP Eco Building Fund**

The fund provides residential building owners with subsidies on a matching basis to carry out improvement works to enhance the energy efficiency of the communal areas of their buildings.

The fund has approved about HK\$64 million covering 145 applications since 2014 to March 2018.

- **Energy Audit Services**

CLP Power provides energy audit services for medium to large businesses to help evaluate their energy consumption patterns and make tailor-made recommendations to improve their energy efficiency, thereby reducing both energy use and operational costs. CLP Power has now conducted over 2,300 energy audits for business customers.

Between 2009 and 2017, CLP Power has helped business customers to achieve energy saving of 140 million kWh of electricity after these audits.

- **Advanced Metering Infrastructure (AMI)**

Advanced Metering Infrastructure is a core component of Smart Grid. It is an integrated system that comprises smart meters and communication technologies and is also a key enabler in promoting energy saving and demand side management. In 2013 and 2017, CLP introduced pilot schemes to help customers understand more about their electricity consumption – with many taking active steps to reduce electricity use. CLP Power expects to explore how to effectively implement AMI for all our customers in Hong Kong in the future.

- ***Energy Efficiency Loan Scheme***

To help business customers improve their energy efficiency performance, CLP Power offers free energy audits to identify energy saving potential and an interest-free Energy Efficiency Loan is available to help subsidise non-governmental business customers to install energy efficient applications.

5. **Community Projects**

- ***Sharing the Festive Joy***

CLP Power launched the Sharing the Festive Joy programme in 2014, inviting single elderly people / elderly couples to spend the festivities with CLP volunteers to showcase care for the elderly and spread message on energy efficiency and safety.

- ***CLP Subsidy Programme for Energy Efficient Electrical Appliances***

In 2014, CLP Power allocated HK\$10 million from our shareholders' fund to launch the CLP Subsidy Programme for Energy Efficient Electrical Appliances. In joint effort with members of 14 District Councils in our supply area, NGOs and green groups, the programme gave out sets of four energy saving electrical appliances to 4,000 households to improve their basic necessities and help them save energy expenditure. In 2016 and 2017, CLP Power continued to provide energy saving electrical appliances to families with immediate needs.

- ***Assistance to the underprivileged***

Since 2014, CLP Power has worked with Caritas Hong Kong, Yan Oi Tong, Society for Community Organisation (SoCO), World Green Organisation and Hong Kong & Kowloon Electrical Engineering & Appliances Trade Workers Union to help tenants of sub-divided flats who have obtained their landlord's permission and fulfilled safety requirements to install individual meters for free. So far, a total of three flats, have been installed with 13 individual meters.

The Hong Kong Council of Social Service launched the Community Housing Movement in 2017, which aims to provide transitional social housing to underprivileged families and individuals in three years. As one of the supporting parties, CLP Power donates energy efficient home appliances to the tenants to help reduce their household expenditure, encourage energy saving and improve home safety.

- ***The Energy Saving Rebate Scheme***

We also provide energy saving rebates to low-consumption customers. The Energy Saving Rebate Scheme was launched in 2013. Under the scheme, residential customers who consume 400 units or less of electricity on a bi-monthly basis can enjoy rebates.

End

CLP Power Hong Kong Limited
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