

# Tips for NGOs to transform their existing buildings



## NGO buildings going green



Funded by :



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# Background

In 2018-19, the Hong Kong Green Building Council provided advisory service to four NGOs to help them study the feasibility of transforming their existing buildings into green buildings. The Project was funded by The Hong Kong Jockey Club Charities Trust.

This reference guide summarises the lessons learned from the Project and provides tips for NGOs to transform their existing buildings into green buildings and get certified under BEAM Plus, which is Hong Kong's green building rating system.



# Tip # 1 : Choose the right rating tool

**“BEAM Plus provides a variety of tools to assess different scenarios of green building.”**

- For major alteration (e.g. rebuild over 50% by volume or by superficial areas of main walls) of buildings, choose *BEAM Plus New Buildings (NB)*. These cases typically involve building plan submission to the Buildings Department. Examples include wholesale conversion of heritage buildings, extension of existing buildings to accommodate additional services, etc.
- Where a building has no major alteration works and if you want to assess the operation and maintenance practices as well, choose *BEAM Plus Existing Buildings (EB)*. Some building owners may carry out equipment replacement, upgrade or retrofit before they submit the buildings for assessment.

- If BEAM Plus EB is chosen, you may choose the Comprehensive Scheme where all aspects will be assessed, or the Selective Scheme where only one aspect will be assessed. For those with constraints in budget or resources, it is often more suitable to choose the latter.
- Bear in mind BEAM Plus is a rating tool, so you need to determine the target rating for your building based on its constraints and the development goal of your organisation.



## Tip # 2 : Utilise resource websites

“There are a number of existing websites that provide useful information.”

- The Business Environment Council has developed an energy efficient retrofit guide for offices and hotel buildings. There is also a Retrofit Calculator to enable you to calculate the performance of different upgrade options.

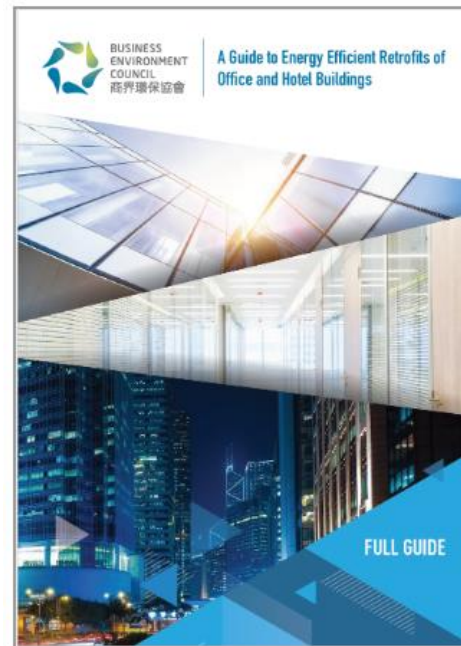
[bec.org.hk/resource-centre/eerguide\\_download](http://bec.org.hk/resource-centre/eerguide_download)

- For BEAM Plus, the public can gain access to statistics of past assessment results (thus able to know the commonly achieved credits and innovation techniques) at HKGBC website – please look for “Cream of BEAM Plus” under “Other References”:

[hkgbc.org.hk/eng/beam-plus/beam-plus-references/ref-others/ref-others.jsp](http://hkgbc.org.hk/eng/beam-plus/beam-plus-references/ref-others/ref-others.jsp)

- The Government also provides useful information on energy saving and renewable energy:

[www.energysaving.gov.hk](http://www.energysaving.gov.hk)



### Retrofit Calculators

Office Version



Hotel Version



## Tip # 3 : Manage your manpower

**“There are a number of ways to cope with the manpower demands for going green.”**



In the initial stage of implementing green building, additional manpower is usually required. This need can be satisfied by a number of ways:

- Arranging existing staff members to acquire green building qualifications such as BEAM Professional;
- Employing permanent or contract staff with the necessary green building credentials;
- Engage a BEAM consultant to provide the necessary manpower and expert advice. The consultants can be found from the following website:

[practitioner.hkgbc.org.hk/beam-professional](http://practitioner.hkgbc.org.hk/beam-professional)

In the subsequent stage of operating the green building, the mentality of personnel and operating practices will need to be enhanced. This can be achieved by, for example:

- Staff training to acquire new skills and knowledge
- Employing new staff to provide new range of environmental services
- Upgrading the requirements of related contracts such as facility management contract, waste disposal contract, etc
- Engaging contractors such as retro-commissioning contractors, performance contracting service providers

## Tip # 4 : Utilise available funding

“There are a number of funds available to help NGOs transform their buildings”

- The Hong Kong Jockey Club Charities Trust
- CLP Eco Building Fund
- HKE Smart Power Building Fund
- HKSAR Government’s Solar Harvest Scheme
- CLP Subsidy Scheme for BEAM Plus



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For BEAM Plus registration fee, the Hong Kong Green Building Council offers a 50% discount for charitable organisations that are exempt from tax under Section 88 of Inland Revenue Ordinance:

<https://www.hkgbc.org.hk/eng/beam-plus/beam-plus-references/fee/fee.jsp>

For CLP Eco Building Fund, it should be noted that a number of organisations have applied for funding to retrofit solar control films on glass windows although the main applications of the fund are for upgrading and replacement of building services equipment. A successful NGO case has been posted by CLP Power at this website:

<https://www.youtube.com/watch?v=8V5okjFNxt4&list=PLDXpY2n3YIY-YVBeVJS8peyFei1GeYBwx&index=5>

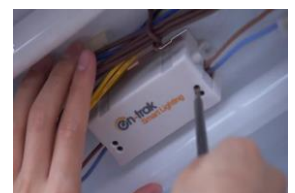
## Tip # 5: Go green in a wise manner

“Think outside the box and pay attention to details when going green.”

- When replacing equipment, always think about the possibility of adopting a new design or using modern kind of equipment.
- One example is chiller replacement. You can explore the possibility of using water-cooled or oil-free chillers instead of traditional ones.
- Another example is air-conditioning (AC) unit replacement. Have you explored the possibility of installing fans in conjunction with AC units? This helps air distribution and raises setpoint.
- When replacing lighting, do not forget to down-size the electric wattage as new types of lamps often provide a greater light output than old ones.
- Pay attention to details and you can realise energy-saving opportunities. For example, are you switching on too much lighting and AC for just a small demand such as cleaning operation? Today, wireless control devices enable you to control every lamp or AC unit economically.



BRIGHTNESS IN LUMENS		200+	400+	700+	900+	1300+
	STANDARD	25W	40W	60W	75W	100W
	HALOGEN	18W	28W	42W	53W	70W
	CFL	6W	9W	12W	15W	20W
	LED	4W	6W	10W	13W	18W





# Green Building Case Study Videos

Scan the following QR codes to learn more about NGO partners' green practices.

The Boys' & Girls' Club Association of Hong Kong



Chinese YMCA of Hong Kong



Hong Kong Red Cross



Hong Kong Sheng Kong Hui Welfare Council



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