

## **A NEW STANDARD TEMPLATE FOR FINANCING ENERGY EFFICIENCY RETROFITS FOR BUILDINGS**

**Singapore, 9 December 2015** – An energy performance contract (EPC) can guarantee energy savings for an existing building without an initial financial outlay.

2. To help building owners overcome the initial financial barrier to retrofit their buildings, the Singapore Green Building Council (SGBC) has collaborated with the Building and Construction Authority (BCA) to develop a standard EPC template for building owners and EPC firms to use. The EPC template was developed in consultation with several established EPC firms and building owners. The standard template assists in accelerating the retrofitting process by clearly spelling out the key conditions of contract for both the building owner and the EPC firm so that building owners can better focus on the critical component in any EPC: the amount of energy savings guaranteed.

3. The EPC template complements the Building Retrofit Energy Efficiency Financing (BREEF) scheme by BCA which offers financing to building owners, Management Corporation Strata Titles (MCSTs), Special Purpose Vehicles and EPC firms for energy efficiency retrofits.

4. In an EPC, the EPC firm will guarantee specific energy savings for the building over a set period of time, either in monetary terms or a savings percentage. The EPC firm can either provide financing to undertake all the necessary works to complete the retrofit of the building, or the building owner can finance the retrofit. For the first option, the building owner will not need to incur an initial financial outlay to start saving energy. In both cases, the cost of these works will be offset by the energy savings as a result of the retrofitting.

5. “With this standard template, building owners can ease into building retrofit projects, allowing their buildings to become more energy efficient, with a healthier environment for their occupants. Having in place an EPC will also allow building owners to focus on other aspects of the building, knowing that the building’s energy efficiency and performance is in the hands of professionals,” said Mr Chia Ngiang Hong, President of SGBC.

6. As buildings present a tremendous opportunity to reduce emissions and mitigate the effects of climate change, this new EPC template is part of SGBC’s commitments made during Buildings Day at COP21 in Paris on 3 December 2015 to drive change and market transformation for green buildings.

7. “As Singapore remains committed to reduce its emissions through its Intended Nationally Determined Contributions, retrofitting existing buildings through an energy performance contract can lower the carbon emissions intensity of buildings and create a more sustainable and greener built environment,” Mr Chia added.

8. In the latest BCA Building Energy Benchmarking Report 2015, a study on 83 existing buildings which are certified to have met the Green Mark Gold rating or higher, showed that retrofitting existing buildings can save up to \$41 million annually.

9. “There is a strong business case to retrofit energy inefficient buildings. The EPC provides a market solution to help building owners achieve energy savings and it has been gaining popularity over the years. It is now timely to launch the standard template contract, putting together the best practices. We hope that this will inspire confidence in building owners to make the decision to embark on energy-saving initiatives,” said Dr John Keung, CEO of BCA.
10. Sim Lim Tower, Ngee Ann City and Treetops Executive Residences are proof of older buildings that have gleaned tremendous benefit from EPCs.
11. 36-year old Sim Lim Tower has achieved 41 percent savings in electricity bills (excluding tenants) with average monthly energy savings of approximately 86,000 kWh since the retrofits were completed in March 2015 under an EPC arrangement.
12. Mr Lee Ong Chun, Chairman of MCST of Sim Lim Tower, is satisfied with the results of the EPC retrofit: “The retrofit has improved our building’s energy performance, efficiency and occupants’ comfort. In achieving the BCA Green Mark Gold<sup>PLUS</sup> Award, the entire exercise has added value and enhanced the image of our building. The EPC firm can help to oversee the efficiency upkeep of the retrofitted works to ensure the same efficiency is maintained at all times, hence sustaining long term energy savings.”
13. 25-year old Ngee Ann City, an iconic building along Orchard Road, is expected to enjoy estimated energy savings amounting to more than 20 percent of electricity bills (excluding tenants) or equivalent to more than six million kWh per year through its energy efficiency retrofits. Mr Eric Chan, General Manager of Ngee Ann Property Management Pte Ltd, said: “Under the EPC, energy savings generated will be sufficient to pay for these retrofits over the term of the contract. After the contract ends, we will still continue to enjoy energy savings and at the same time, be able to do our part to protect the environment by reducing our carbon footprint. The retrofits also enhance the building asset in terms of its value. Any prospective buyer is willing to pay more for an energy efficient building as the operating expenses will be kept to its minimum.”
14. Treetops Executive Residences, a 16-year old residential building, has reaped energy savings of 52 percent after its retrofit.
15. “By having an EPC with a professional vendor, the energy savings and measures that have been proposed can be constantly measured and guaranteed,” said Mr Tay Hock Soon, General Manager of Treetops Executive Residences. “The team can also give professional advice on how the targets can be achieved and ensure that the improvement in energy efficiency is sustained in the long term even upon completion of the retrofits. As the expert in this area, the EPC firm can also advise on new and better green initiatives that tap on the latest technology advancements to push for greater sustainability. This green retrofit has also helped us to anchor our brand position as an eco-friendly building in an increasingly competitive market.”
16. The standard template EPC will be available for purchase from SGBC in early 2016. EPC firms certified under SGBC’s Singapore Green Building Services (SGBS) labelling scheme will also use this contract in their EPC projects.

17. Mr Lim Fatt Seng, managing director of SGBS-certified Comfort Management Pte Ltd and the project lead for the EPC template, is confident of the document's utility to the industry, "This standard template comes at an opportune time as building owners are increasingly looking for ways to improve the efficiency of their existing buildings especially older buildings. With this template, there will likely be a greater and faster take-up for EPC projects, which will benefit building owners, the occupants and our future generations."

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### **About Singapore Green Building Council**

Established in 2009, the Singapore Green Building Council (SGBC) champions efficient green building design, practices and technologies that drive environmental sustainability in the building and construction industry. SGBC administers the Singapore Green Building Product & Services labelling schemes, setting standards and benchmarks for green building products and services in Singapore and the region. As an Established Member of the World Green Building Council, SGBC is also part of a wide global network of green building councils in more than a hundred countries. For more information, visit [www.sgbc.sg](http://www.sgbc.sg).

### **About Building and Construction Authority**

The Building and Construction Authority (BCA) of Singapore champions the development of an excellent built environment for Singapore. BCA's mission is to shape a safe, high quality, sustainable and friendly built environment, as these are four key elements where BCA has a significant influence. In doing so, it aims to differentiate Singapore's built environment from those of other cities and contribute to a better quality of life for everyone in Singapore. Hence, its vision is to have "a future-ready built environment for Singapore". Together with its education arm, the BCA Academy of the Built Environment, BCA works closely with its industry partners to develop skills and expertise that help shape a future-ready built environment for Singapore. For more information, visit [www.bca.gov.sg](http://www.bca.gov.sg).

## **ANNEX A: About the Singapore Green Building Services Labelling Scheme**



First launched in 2012, the Singapore Green Building Services (SGBS) labelling scheme aims to enhance green building performance through the building industry's delivery of related services. Understanding the role services play in the construction value chain, the SGBS gives recognition to building consultants committed to building green.

### **Enhanced Recognition under Green Mark 2015**

With the introduction of Green Mark 2015, more emphasis is given to SGBS certified firms. Under the Green Mark for New Buildings (Non-Residential), SGBS certified service providers, particularly Energy Performance Contracting (EPC) firms, will be able to help green building projects accrue additional Green Mark points by being part of the project team<sup>1</sup> and/or by implementing suitable projects that can guarantee operational system efficiency for a minimum of five years<sup>2</sup>.

### **Key Assessment Criteria**

For SGBS certification, the following are assessed:

- Demonstration of key staff competencies and development
- Have green corporate practices in the entire business value chain
- Supporting of the green building community
- Excellent track record in the delivery of green building projects

### **SGBS Label Categories**

- Architecture
- Mechanical & Electrical (M&E) Engineering
- Quantity Surveying
- Environmental Sustainability Design (ESD)
- Energy Performance Contracting (EPC)

<sup>1</sup> Under Section 1.10c Environment Credentials of Project Team, 0.5 point for Green Mark will be awarded to each SGBS certified firm.

<sup>2</sup> Under Section 4.03d (iii) Energy Performance Contracting (Advanced Green Effort): engaging a SGBS certified Energy Performance Contracting (EPC) firm to implement and deliver energy efficiency, renewable energy and/or energy recovery project.

**ANNEX B: List of SGBS-certified EPC Firms**

<b>Name of Firm</b>	<b>Website</b>	<b>Contact Number</b>	<b>Contact Email</b>
Barghest Building Performance Pte Ltd	<a href="http://www.bbp.sg">www.bbp.sg</a>	+65 6635-1677	
Building System & Diagnostics Pte Ltd	<a href="http://www.bsd.nforce.com.sg">www.bsd.nforce.com.sg</a>	+65 6560-0702	<a href="mailto:Info@bsd.com.sg">Info@bsd.com.sg</a>
Carrier Singapore Pte Ltd	<a href="http://www.carrier.com.sg">www.carrier.com.sg</a>	+65 6567-5522	
Cofely South East Asia Pte Ltd	<a href="http://www.cofely.com.sg">www.cofely.com.sg</a>	+65 6440-1818	<a href="mailto:marketing@cofely.com.sg">marketing@cofely.com.sg</a>
Comfort Management Pte Ltd	<a href="http://www.comfort.com.sg">www.comfort.com.sg</a>	+65 6344-9998	<a href="mailto:enquiries@comfort.com.sg">enquiries@comfort.com.sg</a>
DTZ Facilities & Engineering Limited	<a href="http://www.dtz.com/singapore">www.dtz.com/singapore</a>	+65 6293-3228	<a href="mailto:mail.sg@dtz.com">mail.sg@dtz.com</a>
E2green Pte Ltd	<a href="http://www.crescendas.com/business-portfolio/technology/e2green.html">www.crescendas.com/business-portfolio/technology/e2green.html</a>	+65 6488-4688	<a href="mailto:richard@e2-green.com">richard@e2-green.com</a>
G-Energy Global Pte Ltd	<a href="http://www.genenergy.com.sg">www.genenergy.com.sg</a>	+65 3109-1388	<a href="mailto:enquiry@genenergy.com.sg">enquiry@genenergy.com.sg</a>
Johnson Controls (S) Pte Ltd	<a href="http://www.johnsoncontrols.sg/content/sg/en.html">www.johnsoncontrols.sg/content/sg/en.html</a>	+65 6748-0202	
Kaer Pte Ltd	<a href="http://www.kaer.com">www.kaer.com</a>	+65 6735-5640	<a href="mailto:info@kaer.com">info@kaer.com</a>
Siemens Pte Ltd	<a href="http://www.siemens.com/entry/sg/en/">www.siemens.com/entry/sg/en/</a>	+65 6490-6000	
Trane Distribution Pte Ltd	<a href="http://www.trane.com">www.trane.com</a>	+65 6468-8622	

**ANNEX C: Building Retrofit Energy Efficiency Financing (BREEF)**

BCA has been promoting the adoption of Green Mark standards for existing buildings by encouraging building owners to retrofit buildings which have yet to obtain the BCA Green Mark certification. However, high upfront cost and difficulties in securing loans have often been cited as the top few barriers towards the adoption of energy efficiency (EE) retrofits.

Thus in 2011, BCA introduced the Building Retrofit Energy Efficiency Financing (BREEF) scheme, in collaboration with participating Financial Institutions (FI). The scheme helps facilitate loans to building owners for the EE retrofits, with BCA sharing 60% of the default risk, with the participating FIs.

**Eligibility**

The BREEF scheme is a financing programme designed to provide credit facilities for commercial building owners, residential and non-residential MCSTs, EPC firms and Energy Services Companies (ESCOs) and Special Purpose Vehicles (SPVs) to carry out EE retrofits under an Energy Performance Contract (EPC) arrangement. The EPC can ensure that a minimum level of energy savings can be achieved. The scheme also provides credit facilities for the purchase and installation of energy efficient equipment.

**Scheme Conditions**

The credit facilities can only be used for EE retrofits of existing buildings which will help the building achieve the minimum Green Mark certification standard.

The building that is benefitting from the loans of this scheme must maintain its Green Mark certification for the period of loan tenure.

**Scheme details**

<b>Max loan quantum per loan</b>	Up to S\$5 million
<b>Interest Rate</b>	FI to decide.
<b>Max Loan Tenure</b>	8 years

This year's participating FIs include: DBS Bank Limited, IFS Capital Limited, Orix Leasing Singapore Limited, Standard Chartered Bank, and United Overseas Bank.