MEDIA RELEASE

INDUSTRY INTEREST TO MAINSTREAM SUPER LOW ENERGY BUILDINGS PICKING UP PACE

- *To date, a total of 50 buildings have been accorded BCA's Green Mark Super Low Energy (GM SLE) certification. Close to 100 built environment firms[1] were involved in GM SLE projects – which has more than tripled since its inception in 2019*
- *Progressive developers cite contributions towards mitigating climate change and lower operating cost as key motivation for adopting higher Green Mark certifications*
- *National University of Singapore receives the coveted Green Mark Platinum Champion award*

Singapore, 17 Sep 2021 – The Building and Construction Authority (BCA) has awarded a total of 18 Green Mark Awards (see Annex A for details), from a total of 305 Green Mark certified projects vying for the awards in 2021[2]. The awards come at the heels of the recently launched BCA's Green Mark 2021 (GM: 2021) scheme[3] at the International Built Environment Week 2021. The revised green building rating system, co-created with the industry under the Singapore Green Building Masterplan (SGBMP)[4], raises standards in energy performance and also places greater emphasis on other important sustainability and health and wellness outcomes.

2 One key outcome of the SGBMP is to have at least 80% of new developments (by gross floor area, GFA) to be SLE buildings from 2030. BCA notes that the interest from the industry to mainstream SLE buildings is picking up momentum, judging from the more than tripling of built environment firms involved in such projects since the

[1] *The built environment firms include developers/building owners, architects, engineering firms, M&E and ESD consultants etc.*
[2] *Based on certification year (projects certified between Apr 2020 to June 2021). Information on Green Mark Awards 2021 recipients can be found at https://go.gov.sg/bca-gma-ebooklet-2021*
[3] *More information on Green Mark 2021 (GM: 2021) can be found at https://go.gov.sg/gm2021*
[4] *More information on Singapore Green Building Masterplan (SGBMP) can be found at: https://go.gov.sg/bca-sgbmp*

inception of the GM SLE challenge in 2018. Progressive developers have also set their sights to attain higher GM SLE tiers such as GM Zero Energy (GM ZE).

Green Mark Platinum Champion: National University of Singapore (NUS)

3 One such party is NUS, who has taken decisive action to be responsible climate stewards and develop innovative solutions to achieve a low carbon footprint in relation to campus development. The institution has constantly taken steps towards making its developments more environmentally sustainable through innovative building and construction design strategies. This is seen in their Faculty of Engineering Block E2A and the Frontier buildings, which have attained the GM Platinum Zero Energy this year under the refreshed GM:2021 scheme, as well as the School of Design and Environment's Net Zero Energy Building (SDE4). These developments adopted a mix of strategies including maximising natural ventilation, utilising energy efficient and renewable solutions such as high efficient chilled water plants, motion sensor LED lightings and solar Photovoltaic (PVs) panels, resulting in savings of more than half of the buildings' energy usage. With this year's awards in toll, NUS has successfully bagged the pinnacle Green Mark (GM) Platinum Champion 2021 award, given the total number of 40 GM Platinum, 6 GM Gold^{PLUS} and 4 GM Gold certifications for its buildings across its campuses.

4 NUS' Vice President (Campus Infrastructure), Mr Koh Yan Leng, said: "We are honoured to be accorded this year's Green Mark (GM) Platinum Champion Award by BCA. The accolade affirms our progress in realising our vision of a carbon neutral campus. Our strategic priority is to achieve the highest standards of environmental sustainability, and integrate environmental sensitive design into our campus developments. With this, we hope to significantly increase the total number of Super Low Energy and Zero Energy buildings on campus by 2030."

City Developments Limited (CDL)'s 80 Anson Road Accorded the Newly Launched Green Mark Super Low Energy for Residential

5 City Developments Limited (CDL)'s 80 Anson Road (former Fuji Xerox Towers)'s residential component is also one of the first few projects to be accorded

the Green Mark Platinum Super Low Energy certification under the newly launched GM SLE for Residential Buildings. Undeterred by the challenge of having to attain at least 60% energy efficiency[5] for a dense residential building, CDL managed to get the certification by incorporating a solar photovoltaic (PV) system which will generate renewable energy to meet 30% of the development's major energy-use systems. In addition, an energy efficient glazing on the façade along with shading devices which helps to reduce heat absorption into the building. This way, occupants would need to use lesser energy to cool their homes. The development is also designed with lush landscape decks and pockets of greenery to improve occupants' wellbeing and reduce the ambient temperature within the estate.

6 CDL's Group Chief Executive Officer, Mr Sherman Kwek, said: "In support of global climate action, the built environment must embrace circularity by deploying resource-efficient technologies and practices. To achieve our net zero operational carbon targets by 2030, we established CDL's Smart, Sustainable and Super Low Energy (3S) Green Building Framework last year, which guides the way we create environmentally-friendly developments, with health and wellness at the centre of building design and construction. An example of this is the residential component of 80 Anson Road, our first super low-energy building with a biophilic design which also marks Singapore's first Green Mark Platinum Super Low Energy private residential development. Together with our stakeholders in the building value chain, we will continue to push the envelope in sustainable building design and innovation."

Keppel Land: Green Mark Balances Economic and Environmental Objectives

7 Another developer, Keppel Land, also believes in going green including for commercial spaces. Besides obtaining the first GM Platinum ZE commercial building accolade for their Keppel Bay Tower[6], Keppel Land has also obtained a GM Platinum SLE certification for their new 32-storey Keppel Towers redevelopment located at Tanjong Pagar. This will make Keppel the first to have two GM SLE commercial buildings to date. The design of the Keppel Towers redevelopment will strongly

[5] *Under the BCA Green Mark Super Low Energy (GM SLE) programme, buildings are required to achieve at least 60% energy savings above the 2005 building code.*
[6] *More details on Keppel Bay Tower can be found at: https://go.gov.sg/bca-mr-keppel-bay-zeb*

emphasise smart and sustainable features, with the objective to optimise energy efficiency and improve health and wellness of its occupants. A key feature that will contribute to energy efficiency is its efficient air-conditioning system which will utilise innovative technologies such as integrated control dual temperature chiller system with an optimised compressor impeller, as well as dual coil single fan integrated high efficiency air handling units. The building's management systems including the Environmental, Building, Security and Facility Management systems will also be digitised, thereby allowing Keppel Land to monitor and detect anomalies in energy use.

Strong business case for Green buildings

8 Aside to green buildings being a mitigating measure for climate change, it is also able to provide cost savings. An independent review of BCA's Green Mark scheme carried out in 2019[7], have shown that Green Mark buildings are able to reap positive net present value throughout its lifecycle with the cost savings outweighing the upfront investment cost. This is affirmed by Keppel Bay Tower's greening initiatives which will translate to cost savings of approximately S$400,000 annually.

9 Keppel Land's Chief Executive Officer, Mr Louis Lim, said: "We are honoured and delighted to have received first the BCA Green Mark Platinum Zero Energy Award for Keppel Bay Tower last December and now the BCA Green Mark Platinum Super Low Energy Award for the Keppel Towers redevelopment. This underscores our commitment to support the Singapore Green Plan 2030 through creating innovative real estate solutions that mitigate climate change. In line with Keppel's Vision 2030, we will continue to build our sustainability capabilities and credentials to seize business opportunities, especially in the area of smart and sustainable developments, and deliver on our goal to redefine urban spaces for a sustainable future."

[7]*Independent Consultancy Study on BCA Green Mark Schemes may be found at https://www1.bca.gov.sg/buildsg/sustainability/green-mark-for-independent-consultancy-study-on-bca-green-mark-schemes*

10 BCA's Chief Executive Officer, Kelvin Wong, said: "Congratulations to all Green Mark Awards 2021 recipients. I am encouraged to see the uptick from the industry in leaning forward and paving the way for the built environment to mainstream SLE buildings from 2030 onwards. This is very much the same spirit displayed when co-creating the Singapore Green Building Masterplan and we look forward to getting support from stakeholders both from within and outside of the Built Environment, towards making a low-carbon Singapore a reality."

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Enclosed:

Annex A – Green Mark Awards 2021 Recipients

About Building and Construction Authority (BCA)

The Building and Construction Authority (BCA) champions the development and transformation of the built environment sector, in order to improve Singapore's living environment. BCA oversees areas such as safety, quality, inclusiveness, sustainability and productivity, all of which, together with our stakeholders and industry partners, help to achieve our mission to transform the Built Environment sector and shape a liveable and smart built environment for Singapore. For more information, visit www1.bca.gov.sg.