

MEDIA RELEASE

BCA launches first one-stop smart portal on green building solutions in the region

- *SLEB Smart Hub contains energy data of 2000 buildings and offers a digital Smart Advisor that recommends suitable green building technologies, using big data analytics and artificial intelligence techniques*
- *Close to 90 companies have already benefitted from SLEB Smart Hub*

Singapore, 4 September 2019 – The Building and Construction Authority (BCA) has launched the Super Low Energy Building (SLEB) Smart Hub, a one-stop digital hub with a Smart Advisor on energy efficiency for buildings across Singapore. This was announced by Mr. Lawrence Wong, Minister for National Development and Second Minister for Finance at the opening ceremony of the International Built Environment Week. The initiative was commissioned by BCA and developed by Hitachi Asia Ltd. (Hitachi Asia).

2 In line with Singapore's green building movement, SLEB Smart Hub is Singapore's first digital knowledge centre for green buildings in the region. It is an open database that collates and analyses green building technologies such as air-conditioning, lighting, façade and renewable energy. Beyond being a data repository, its Smart Advisor recommends suitable green technologies and predicts the associated costs and energy savings, using cutting-edge big data analytics and artificial intelligence techniques based on a building's current data set and user's requirements. It allows building owners and designers to evaluate and source green technologies to transform buildings to attain high energy performance. This will ease the adoption of green technologies and support the national target to green 80% of buildings in Singapore (measured by gross floor area) by 2030.

3 Close to 90 companies have participated in the pilot phase and benefitted from accessing the building energy efficiency data to benefit their businesses. For example, Keppel Bay Tower is implementing five innovative technologies, including an occupancy based smart lighting system which was featured by SLEB Smart Hub. The smart lighting system has achieved about an additional 12% lighting energy savings from LED lights. When the deployment of all the technologies are completed, Keppel Bay Tower will also be transferring real-time performance data to SLEB Smart Hub to share information with the industry. Similarly, DBS Bank Ltd worked closely with BCA to leverage the SLEB Smart Hub Smart Advisor to provide a high level assessment of Energy Use Intensity (EUI) and energy consumption for the various systems in one of their buildings. In addition, the Smart Advisor has been able to recommend several technologies for them to explore for an upcoming retrofit project.

4 Moving forward, there are future plans for more novel and value-adding services to be developed and added into SLEB Smart Hub. The Infocomm Media Development Authority (IMDA) is collaborating with BCA to develop an Artificial Intelligence (AI)-driven chiller fault detector (refer to factsheet). Chiller Doctor is planned to be implemented on SLEB Smart Hub, so that interested operators can submit their building data on this web-based tool to identify chiller faults, diagnose them and have recommended fixes in a more effective way. An early pilot is currently being conducted and interested building operators can contact IMDA for more information.

5 Mr. Cheng Tai Fatt, Managing Director of Built Environment Research and Innovation Institute, BCA, said: “SLEB Smart Hub offers a one-stop platform for building owners and designers to access the latest technological information and performance data of Green Mark buildings. This database, together with built-in artificial intelligence tools in the Smart Hub, enables users to improve their building design and operations, thereby saving energy and providing a better indoor environment for occupants. This initiative is in line with our industry transformation and drive towards the adoption of Super Low Energy buildings. We hope that the Smart Hub will facilitate the industry to build up capabilities in providing data-driven solutions.”

6 Mr. Philip Heah, Assistant Chief Executive, Technology & Infrastructure Group of IMDA, said: “In the digital economy, AI, Machine Learning and Internet of Things are powerful emerging technologies. By combining them, businesses in the building sector can leverage this tool on SLEB Smart Hub to give them vital predictive analytics and diagnosis for building equipment. This is an excellent example of cloud-based technology that can augment processes to optimise their chillers’ energy consumption and maintenance.”

7 Mr. Kosuke Horiuchi, Managing Director of Hitachi Asia, said: “We are pleased to contribute towards Singapore’s broader push for a greener and more sustainable environment. Through the rollout of the SLEB Smart Hub, we hope to provide the necessary digital tools to help Singapore advance towards a greener and more resource-efficient built environment.”

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About BCA

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.

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Hitachi Asia Ltd., a subsidiary of Hitachi, Ltd., is headquartered in Singapore. With offices across seven ASEAN countries Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam - the company is focused on its Social Innovation Business to answer society's challenges. Hitachi Asia and its subsidiary companies offer a broad range of information & telecommunication systems, power systems, social infrastructure & industrial systems, electronic systems and equipment, construction machinery, high functional materials and components, automotive systems, home appliances and others. For more information on Hitachi Asia, please visit the company's website at <https://www.hitachi.com.sg>.

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Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, is focusing on Social Innovation Business combining its operational technology, information technology and products. The company's consolidated revenues for fiscal 2018 (ended March 31, 2019) totalled 9,480.6 billion yen (\$85.4 billion), and the company has approximately 296,000 employees worldwide. Hitachi delivers digital solutions utilizing Lumada in five sectors including Mobility, Smart Life, Industry, Energy and IT, to increase our customer's social, environmental and economic value. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

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