

SINGAPORE'S FIRST EXPERIMENTAL URBAN MICRO-GRID TARGETS ZERO-EMISSION

The unified smart energy solution will enable SIT to tap green energy sources, increase efficiency and savings, and provide students with a living experimental laboratory to learn from and nurture local power engineering talents.

Singapore, 23 October 2017 – SP Group [SP] and Singapore Institute of Technology [SIT] announced today that they would be building a multi-energy urban micro-grid at the university's upcoming Punggol campus with a target to reach zero-emission. SP and SIT signed a memorandum of understanding to collaborate on the integrated system today at the opening of Singapore International Energy Week, witnessed by Senior Minister of State, Ministry of Culture, Community and Youth & Ministry of Trade and Industry Ms Sim Ann.

When the new SIT@Punggol campus is expected to be completed in around 2023, it will be the first university campus in Southeast Asia to have a campus-wide multi-energy micro-grid network. The micro-grid, specially designed for Singapore's tropical climate, will integrate gas, electricity and thermal energy into a unified smart energy network. It will seamlessly incorporate renewable sources of energy such as solar energy and energy storage technologies. Once achieved, the system can help SIT save energy and eliminate carbon emissions which is equivalent to removing close to 2000 vehicles off the roads.

As a distributed energy system, the micro-grid can operate independently from the national grid in times of emergency. Insights from the collaboration in the SIT@Punggol campus will help to develop innovative solutions to enable a more reliable and efficient energy system to meet Singapore's future needs where customers can save energy and cost while enjoying a high quality, sustainable lifestyle. The collaboration will also facilitate future research and development in smart energy networks, and will provide SIT students a platform to gain first-hand experience in honing engineering skills and expertise in micro-grids.

Mr Wong Kim Yin, Group Chief Executive Officer of SP Group said, "SP Group is committed to create future-ready energy solutions that are clean and sustainable. We are pleased to partner with SIT to develop innovative solutions that enables them to save energy and cost and we are committed to work with SIT to create a zero-emission campus at Punggol."

Professor Tan Thiam Soon, President, SIT, shared, "SIT is intent on developing innovative solutions to address the challenges in energy and climate change facing our world. We are pleased to work with SP Group on the full campus size micro-grid as we develop the latest technologies to secure our energy future. Other than supplying power to our future SIT@Punggol campus, the micro-grid will also serve as a living experimental lab to support the research, development and test-bedding of distributed energy systems and cyber-security solutions, which will benefit the whole of Singapore."

Mr Ng Wai Choong, Chief Executive, Energy Market Authority, also witnessed the memorandum of understanding signing between SP Group and SIT. He said, "The future power system could be increasingly decentralised, as the costs of adopting solar, energy storage systems and smart grid technologies decline. Besides serving as a receptacle for new R&D ideas and business models, this micro-grid also offers valuable learning opportunities for power engineering students."



Students from SIT's Electrical Power Engineering and other engineering and information security programmes will have the opportunity to participate in the design and implementation of the campus micro-grid, giving them practical hands-on experience while building a pipeline of local power and other engineering talents.

About SP Group

SP Group is a leading energy utilities group in the Asia Pacific. It owns and operates electricity and gas transmission and distribution businesses in Singapore and Australia, and district cooling businesses in Singapore and China. SP Group is committed to providing customers with reliable and efficient energy utilities services. Close to 1.5 million industrial, commercial and residential customers in Singapore benefit from SP Group's world-class transmission, distribution and market support services. These networks are amongst the most reliable and cost-effective world-wide. For more information, please visit spgroup.com.sg or follow us on Facebook at [fb.com/SPGroupSG](https://www.facebook.com/SPGroupSG).

About the Singapore Institute of Technology

Singapore Institute of Technology (SIT) is Singapore's university of applied learning. It aims to be a leader in innovative university education by integrating learning, industry and community. SIT offers applied degree programmes targeted at growth sectors of the economy with a unique pedagogy that integrates work and study. It also offers specialised degree programmes in partnership with world-class universities. To find out more about SIT, visit singaporetech.edu.sg.

SIT-NU Electrical Power Engineering Degree Programme

SIT and Newcastle University (NU) launched its three-year Bachelor of Engineering in Electrical Power Engineering, the first dedicated power engineering degree in Singapore, in 2012 and welcomed its first batch of students in September 2013. The programme was converted to a SIT-NU joint degree in 2017, and there are plans to offer the Master of Engineering Technology in Electrical Power Engineering in 2018 aimed at working professionals in the power and energy sector. Students will undergo a comprehensive, industry-validated curriculum that encompasses the generation, transmission and distribution of electric power, as well as the business techniques relevant to the management of engineering projects.