

NEC Provides Energy Storage Solution to SP Group's Award-Winning Hybrid Energy Storage Pilot

September 27, 2019 – Westborough, MA, USA and Singapore – NEC Energy Solutions and NEC Asia Pacific jointly revealed today that NEC provided its 400kW, 400kWh GSS® end-to-end Grid Storage Solution and AEROS® proprietary energy storage controls software as part of SP Group's innovative hybrid system which recently received the Singapore Minister for National Development's R&D Merit Award at the 2019 Urban Sustainability R&D Congress.

Singapore District Cooling (SDC), a subsidiary of SP Group and A*STAR Institute for Infocomm Research (I²R) have co-developed the controls, management algorithms and interfaces to pilot the hybrid system to further enhance its existing cooling network that supplies centrally-produced chilled water for air conditioning use at 23 buildings in Singapore's Marina Bay business district.

The unique hybrid system combines a containerized lithium-ion battery from NEC with an integrated thermal management system and power conversion system. It provides added efficiencies through lowering electricity costs needed to produce chilled water and assist with mitigating fluctuations in electricity demand and maintain grid stability. It also uses intelligent control algorithms, which give businesses the ability to offer demand response and other ancillary services. If renewable energy that is used to power the chillers suddenly fluctuates, the lithium-ion battery can immediately discharge energy to balance the supply, hence overcoming the challenge of inconsistent renewable energy in a cost-effective way.

"This project represents several important firsts for NEC Energy Solutions. This is our first project in Singapore, as we expand and increase our market penetration in the APAC region," said Steve Fludder, CEO of NEC Energy Solutions. "We are also pleased to be part of this project as this is a first-of-its-kind integrated electricity cooling network that uses advanced predictive analytics and intelligent control algorithms to help prove its viability. This "smart" system is a great example of the potential value energy storage has to offer and reflects NEC's vision for a digital energy enterprise platform of the future."

About NEC Energy Solutions

NEC Energy Solutions develops and manufactures smart energy storage solutions for electric grid, backup power and lead-acid replacement applications with system integration expertise focusing on high performance, efficiency, safety and reliability. Products range from massive grid-scale energy storage systems, successfully operating in commercial revenue service since 2009, to commercial and specialty battery solutions to fit the needs of telecom, datacenter, medical and other industrial applications. For more information, please visit www.neces.com.

About NEC Asia Pacific Pte. Ltd.

Singapore-based NEC Asia Pacific (NEC APAC) is the regional headquarters for NEC Corporation (HQ: Japan) in the Asia Pacific region (South and Southeast Asia and Oceania). As a leading information and communications technology provider, NEC APAC provides innovative solutions and infrastructure to promote safety, security and enhance the quality of life for individuals and the community. NEC APAC's expertise includes solutions for carrier networks, biometric identification, enterprise applications and infrastructure, unified communications, transportation solutions, multimedia displays and smart energy, as well as the provision of managed services and contact centre services.

Together with our research laboratories, NEC APAC provides cutting-edge public safety, cybersecurity technologies and enterprise solutions to enable safer cities, with a vision to create a brighter future. For more information, please visit <https://sg.nec.com>.

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