
NEWS RELEASE

21 October 2024

PSA UNBOXED COLLABORATES WITH AMPERESAND ON SOLID-STATE TRANSFORMER TECHNOLOGY TRIALS FOR SUSTAINABLE ELECTRIFICATION AT SINGAPORE'S PORT

PSA unboXed, the external innovation and corporate venture capital arm of PSA International (PSA), and Amperesand, a grid infrastructure solutions provider, announced today a collaborative trial focused on enhancing port decarbonisation and promoting sustainable logistics practices.

This partnership involves a pilot trial of Amperesand's solid-state transformer (SST) technology at Singapore's port, as part of PSA's planned upcoming charging facilities for its fleet of electric prime movers.

Amperesand's SST technology provides efficient and safe high-power charging infrastructure for PSA's electric fleet and is natively intelligent for energy monitoring and management.

The SST solutions feature silicon carbide (SiC) devices and proprietary high-frequency modules, ensuring power flow with higher efficiency and reduced grid strain in a compact form factor. Amperesand's technology is natively bi-directional and intelligent, allowing optimal energy routing and advanced applications such as vehicle-to-grid. The modular and scalable design enables PSA to manage its electric vehicle charging facilities with greater flexibility, distributing power economically across the facility's high-capacity dispensers.

This partnership will commence with a one-year Proof of Value (PoV) that is targeted to start in mid-2025. The PoV is aimed at gathering data on the functionality and validating the performance and cost of Amperesand's SST in PSA's fleet charging application, with the potential to support further port electrification.

"This initiative with Amperesand aligns with our broader objective of integrating innovative technologies to future-proof our infrastructure. By evaluating solid-state transformer technology at PSA Singapore, we aim to gain strategic insights that could inform our approach to sustainable electrification and operational resilience in the future." said Mr Nelson Quek, Regional CEO Southeast Asia, PSA International.

Mr Alvin Foo, Head of Technology and Sustainability Solutions, PSA Singapore & Head of PSA unboXed, said, "Following our preliminary assessment, PSA finds Amperesand's SST technology promising and I look forward to the positive outcomes from the PoV trial as it has the potential to enhance our efforts in sustainable electrification at the port. PSA will continue to explore innovative technologies such as SST, as we collaborate with like-minded partners to deliver long-term value for our customers and stakeholders."

“PSA has long been recognized worldwide as a leader in port operations. With PSA's expertise and support, we look forward to demonstrating the value of Amperesand's SST solutions in providing intelligent grid interfaces for fleet charging applications.”, **said Mr Phil Inagaki, Interim CEO Amperesand.**

-- End --

About PSA unboXed

The Corporate Venture Capital arm of PSA International, PSA unboXed is committed to accelerating technological advancements and fostering groundbreaking solutions within the global supply chain and port operations industry. Leveraging PSA International's extensive expertise and expansive global network, PSA unboXed aims to drive transformational growth, enhance operational efficiency, and promote sustainability across the logistics ecosystem. With a strategic and agile approach, PSA unboXed is uniquely positioned to invest in and nurture the next generation of pioneering companies, shaping the future of logistics and transportation. Visit us at unboxed.globalpsa.com, or follow us on LinkedIn and Facebook (@psaunboxed).

About Amperesand

Amperesand's infrastructure solutions, powered by novel solid-state transformer (SST) technology, enable efficient, intelligent, and resilient electrification. Amperesand's core SST technology was pioneered at the Energy Research Institute at Nanyang Technological University (NTU). Amperesand was established in 2023. For more information, visit www.amperesand.io. Contact us at info@amperesand.io.

Media Contact

PSA unboXed

Matthew Webster

Assistant Vice-President (Branding & Media), Corporate Communications, PSA Singapore / PSA unboXed

mattheww@globalpsa.com

Amperesand

Dickson Thian

Chief of Staff, Amperesand Pte. Ltd.

dickson@amperesand.io