

Allotrope Partners supports the deployment of one of Vietnam's first industrial battery energy storage systems

Ho Chi Minh City, Vietnam, May 3, 2023 – Allotrope Partners led a consortium of partners, including Bestiani Engineering Company, SolarBK, and Canopy Power, to successfully install one of the first behind-the-meter battery energy storage systems (BESS) in Vietnam. This 224 kilowatt-hour/100 kilowatt system was installed in partnership with a leading technology manufacturing company in Saigon Hi-Tech Park near Ho Chi Minh City. The system was fully integrated and automated to enable optimal BESS charging and discharging. This groundbreaking battery installation reduces the company's reliance on grid electricity, increases resilience, and will support integration of future solar-plus-storage solutions.

Battery storage technologies are essential to increasing clean energy utilization, but in markets like Vietnam, battery energy storage systems have not been widely implemented to date. In recent years, 16,500 megawatts of solar capacity has been installed in Vietnam, representing 25% of total installed generation capacity. However, grid congestion and transmission constraints have led to curtailment and an environment where clean energy is not fully utilized. BESS solutions have the potential to play an increasingly pivotal role in balancing renewable energy supply with growing electricity demand.

Currently in Vietnam, rooftop solar systems must be sized for self-consumption, which can result in small systems that only cover a limited portion of a site's electricity demand. At the facility-level, BESS can help companies install larger solar systems, capture solar electricity that is generated during the day for use at any time, and maximize their overall use of clean energy. At the country-level, BESS can help balance grid fluctuations, increase reliability, and allow excess renewable energy, that would have been curtailed, to be utilized when it is needed most.

With Allotrope's leadership, this project demonstrated the installation, commissioning, and operation of a behind-the-meter battery system at one of the world's leading manufacturing facilities for audio-visual equipment components. This project showcases the technical and commercial viability of BESS to reduce electricity consumption during peak hours (also known as peak shaving) and provide load shifting and emergency backup services for an industrial energy user. In the future, integrating BESS—especially at facilities that are pursuing renewable energy solutions like rooftop solar —can become an attractive model for other companies to replicate in Vietnam.

This successful project deployed in Vietnam's commercial and industrial sector exemplifies the leading edge of innovative clean energy solutions that can be harnessed by the private sector to help accelerate the energy transition in Vietnam and across the Southeast Asia region. Allotrope looks forward to amplifying the lessons learned from this first-in-market, behind-the-meter BESS installation to share learnings and encourage replication across commercial and industrial companies in Vietnam and beyond.

About Allotrope Partners

Allotrope Partners is a leading clean energy and industrial decarbonization advisory firm specializing in emerging markets and technologies. Headquartered in the U.S., with local teams in Vietnam and across Southeast Asia, Allotrope's technical experts support the development and implementation of decarbonization and environmental commodity strategies to advance low carbon and clean energy solutions. To learn more, please visit www.allotropepartners.com.