

Title of Project:

Deployment of 1 MWh battery energy storage system to power parts of Pulau Ubin Island

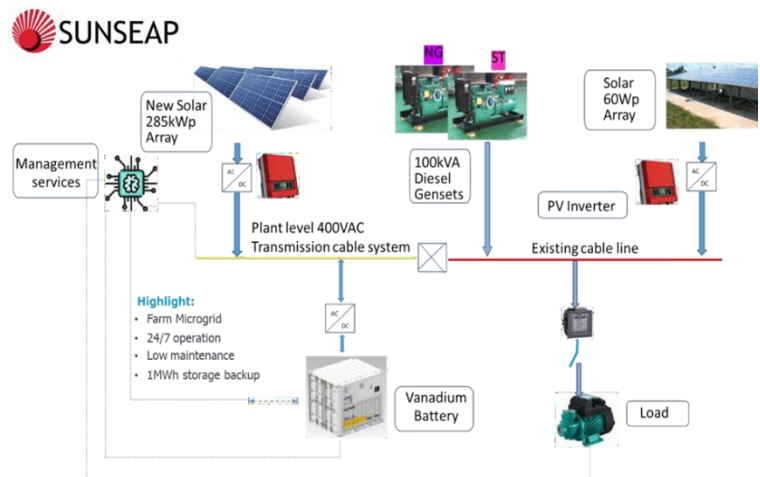
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Description of Project:

A Vanadium Redox Battery (VRB) Energy Storage System (ESS) will be deployed as part of the Pulau Ubin Micro-grid operated by EDPR Sunseap APAC. The ESS will enhance the reliability of the electricity supplied from a co-located 285 kWp solar photovoltaic (PV) system. The ESS manages solar intermittency through the active management of any mismatches in supply and demand by storing excess electricity generated (e.g., when the sun is strong) and discharging when demand exceeds solar power generated. The VRB ESS will utilise a smart pump to regulate the flow of its electrolyte which increases its efficiency by up to 3%.

Potential benefit:

The cleaner and more reliable electricity supply via the Pulau Ubin Micro-grid will benefit more residents and businesses. From early next year, two of VFlowTech’s 40-foot-long batteries will provide one MWh of energy storage for the Pulau Ubin Micro-grid, which encompasses residential houses and National Parks Board’s (NParks) facilities.



(Link to download high-resolution image: [Please click here](#))



Jelutong Generator Room	JEL	Nil	Nil	Nil
Visitor Centre & Assembly Area	VC AA	Grid-tied PV system – 60kWp	V Flow 500kWh	Nil
Nature Gallery Generator Room	NG	Nil	Nil	100kVA back-up diesel generator
Singtel Generator Room	ST	Nil	Nil	100kVA back-up diesel generator
New Shelter over Storage Area at Jelutong		Grid-tied PV system – 285kWp	V Flow 500kWh	Nil