

A joint venture of







NUSANTARA SEMBCORP SOLAR ENERGI POWER PLANT

First integrated solar and energy storage project in Indonesia

The Nusantara Sembcorp Solar Energi (NSSE) Power Plant is the first utility-scale integrated solar and energy storage project in Indonesia. It generates around 93GWh of green energy per year to cater to all electricity needs in Nusantara.

NSSE is a joint venture of PLN Nusantara Renewables and Sembcorp Renewables Indonesia.

Solar PV system

Energy Storage System



14.2MWh



114,420

Battery packs 126



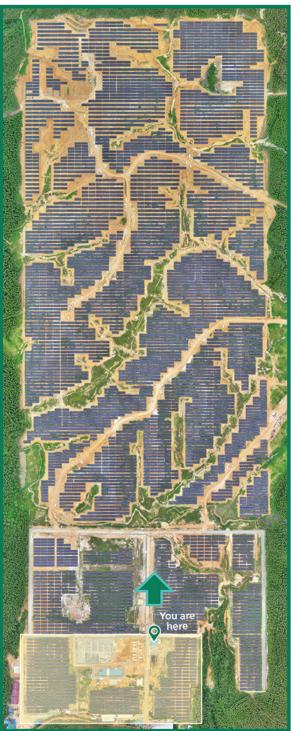














200kW & 300kW Inverters Convert direct current (DC) to alternating current (AC) **PV Smart Transformer** Stations (STS)



Convert low-voltage (LV) power to medium voltage (MV)

for transmission to the power

625Wp Bifacial PV Modules

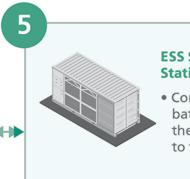
energy yield

• Capture sunlight from both the front and rear sides for optimal



Power House

- Houses the command centre with remote monitoring capabilities
- Contains LV and MV cables as well as switchboard distributing electric power to several smaller load circuits



ESS Smart Transformer Stations (STS)

 Convert MV power to LV for battery storage and reverses the conversion for transmission to the power grid

Power Conversion Systems (PCS)

 Convert AC power to DC power for battery storage, and vice versa for power grid

Direct Current (DC)

▶ Alternating Current (AC)

Energy Storage System (ESS)

Holds lithium iron

phosphate (LFP) battery packs with high energy density and reduced energy consumption. Built-in air-conditioning systems keep batteries operating at optimal temperatures.





• Steps voltage up and down, and switches transmission and distribution circuits into and out of the grid system