



Power Stability Expert

NR Electric's Installed Rooftop PV System Continues to Grow



The 2.58 MWp Rooftop PV system, locating at Nanjing, China constructed by NR Electric has been operating seamlessly for over 18 months and counting.



Overview of the Rooftop PV System

The rooftop PV system located at an altitude of 5 meter, covers an area of about 30,000 square meters. In Nanjing, the annual total long sunshine time is about 1015 hours, which can generate an estimated 2.62 million kWh per year. The major achievement from this PV generation is green power manufacturing. Annually, it helps to save around 865 tons of coal and ultimately

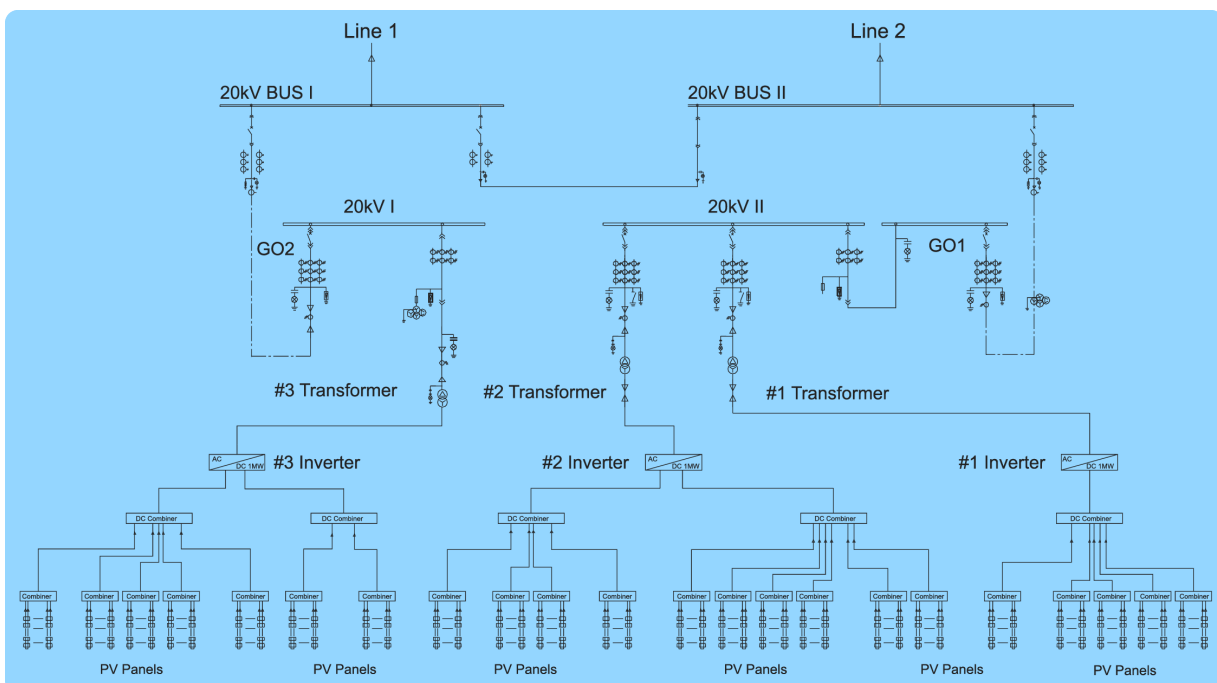
reduce 2155 tons of CO₂ emissions according to the China standard of 'GB13223-2003 Emission standard of air pollutants for thermal power plants'. Besides, the PV generation data reflects that the annual average economic benefit is about 3.1 million RMB (0.49 M\$). Hence, the return of investment will be less than 7 years.



Integrated PMS for PV Generation and BESS

NR Electric manufactured and provided all the key equipment including three PCS-9563 series PV inverters (1XPCS-9563-500kW inverter and 2XPCS-9563-1000kW inverters), SCADA (PCS-9700), PCS-9600 series protection IEDs, and telecommunication devices for this rooftop PV system. Meanwhile, NR Electric procured 10,540 pieces of 245Wp polycrystalline PV modules, cables and other

necessary electrical equipment from various world class manufacturers for this rooftop PV system. All PV panels are installed with a fixed dip angle of 10 degrees. The PV modules are divided into three arrays, which are connected to 1X0.5MW and 2X1MW inverters respectively. Three step-up transformers are used for stepping-up the AC voltage and syncing the PV grid to the 20kV gridsubstation.





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The 2.58MWp PV generation system is presently operating combined with a 200kW/1440kWh Sodium Sulphur (NaS) Battery Energy Storage System (BESS) constructed by NR Electric. The PV system along with the BESS forms a micro-grid and keeps the power alive during main power system failure by working as an

isolated micro-grid for important loads. The micro-grid system effectively improves the economic efficiency and reliability of the power system for the manufacturing process of NR Electric. The micro-grid system is fully capable of performing on-grid and off-grid operations without any hassle.





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NR Electric, one of the largest protection and control manufactures leads the global footprints for FACTS, HVDC and renewable devices. We keep contributing to the promotion of global clean energy and expecting to follow the trend in future endeavors. We have the ability to supply all around solution for rooftop and

ground based PV Generation, ranging from PV inverter, BESS, SCADA to protection and control. Meanwhile, we are committed to promoting widespread adoption of PV generation through our turnkey solutions including consulting, design, supply, installation, commissioning, training and operation.



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