

Explore Higher ROI with Sungrow Off-grid Commissioning Solution



Navigate a possibility

Traditionally, the main power grid is necessary for commissioning of the equipment, such as inverters, transformers, Ring Main Unit (RMU) and monitoring equipment before the PV plant is officially put into operation. Construction is time-consuming, complex and often comes with unpredictable risks during the construction process - the time for commissioning becomes quite limited. Due to the intensive schedule of the project, any failure during the commissioning

will lead to delay and considerable loss. Moreover, the application procedure for drawing power supply from the main power grid is complicated and the cycle is extremely long.

Given this condition, a large number of project owners opt to use diesel generators to establish a micro-grid for commissioning. Before the diesel generator goes to work, it requires a tedious manual modification

on circuit wiring, which significantly prolongs the commissioning duration and results in additional costs.

We believe that the utilization of the existing equipment to create a grid will slash the commissioning duration at large. Especially for large-scale PV plants, the earlier it comes online, the more yields it'll bring.

Sungrow off-grid commissioning technology

The off-grid commissioning technology is an ideal solution that can be adopted to complete all the commissioning work of the

inverter and other equipment though the main power grid is not powered on. The two accessible technical solutions, low voltage

mode and high voltage mode, can flexibly be chosen depending on different demands.

Low voltage solution for construction

The low-voltage solution mainly solves the problem that power supply for electrical equipment in the construction stage. The inverter converts the DC power of the PV module into a stable AC power for on-site electrical equipment (such as AC withstand voltage tester, electric tool) through the auxiliary distribution cabinet, as shown in Figure 1.

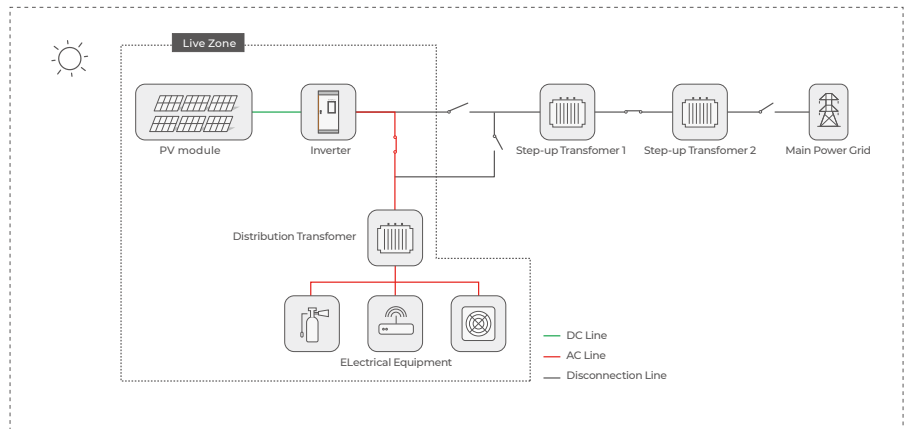


Figure 1: Low Voltage Solution Diagram

Users can adjust the frequency and amplitude of the inverter AC voltage to match different loads easily and seamlessly. Meanwhile, the high-precision overload

protection module integrated in the inverter ensures the safety of the electrical equipment. The low voltage solution completely isolates the inverter from the

medium voltage equipment, when partial functions of the inverter can be verified before the medium voltage equipment gets ready.

High voltage solution for system hot-commissioning

When the main power grid is not powered on, any inverter can work in the off-grid high-voltage mode to conduct the system hot-commissioning in terms of micro-grid. It can not only solve the problem of power supply for electrical equipment, but also verify the grid-connected performance of the system in advance, as shown in Figure 2.

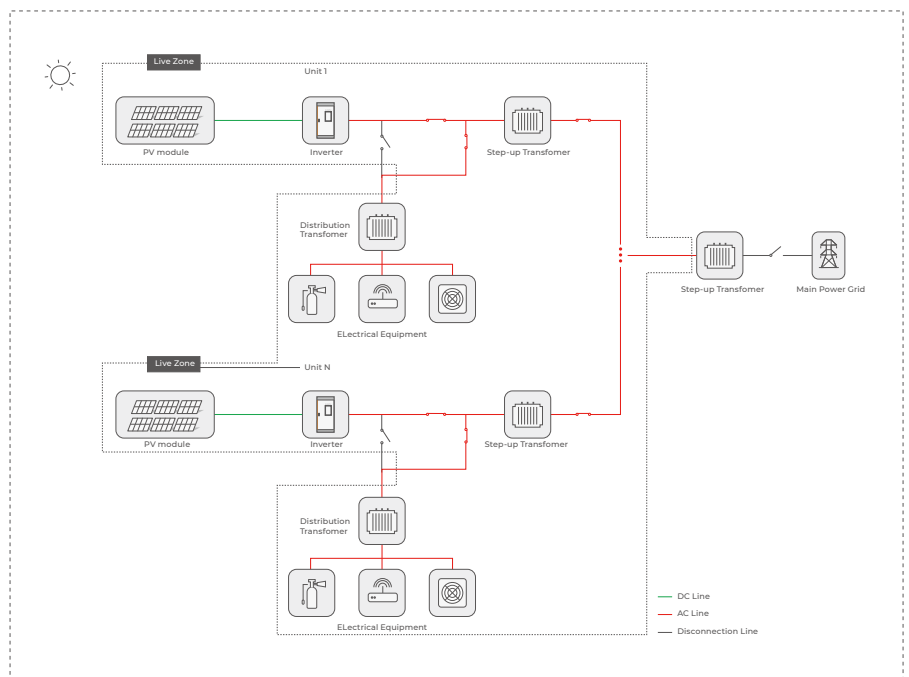


Figure 2: High Voltage Solution Diagram

Reap your benefits

An increasing number of customers have gained considerable benefits in terms of our solutions. One of our cases, a 350 MW solar farm supplied by Sungrow in Vietnam, has widely used Sungrow off-grid commissioning solution during the construction and the system hot-commissioning period. Compared with PV plant using traditional diesel generators in the same region, Sungrow

off-grid commissioning solution created more than 15 days of on-grid time for customer.

Apart from that, the off-grid commissioning solution is also often applied in operation & maintenance (O&M). If the failure occurs, the

equipment in the PV plant is required to be replaced, the low-voltage solution can be adopted during the off-grid commissioning in order to ensure the stable operation of the replaced equipment in main power grid.



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