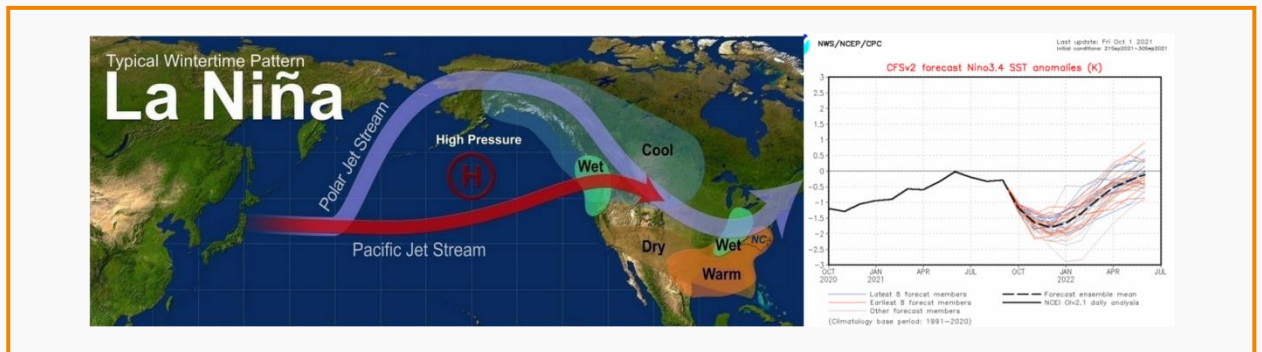


La Nina will be formed! Prepare for backup power this winter

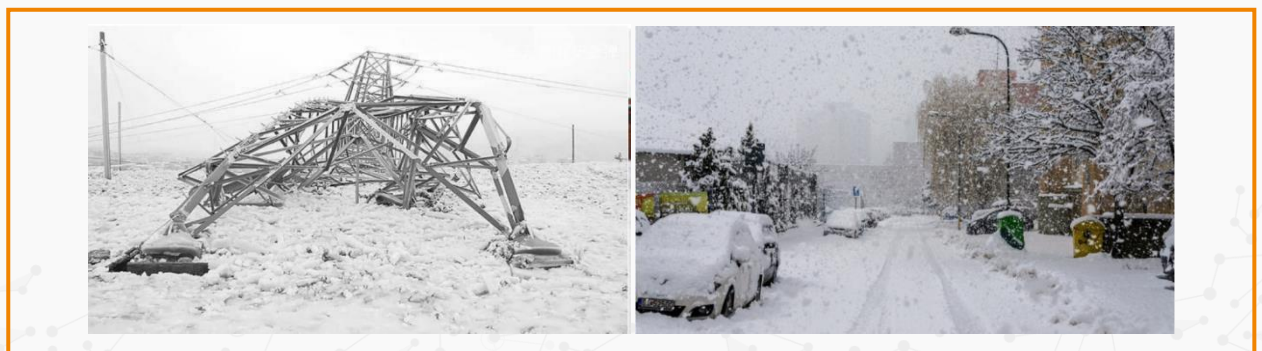
Background

As the ocean and atmosphere of the tropical Pacific indicate, La Niña has already occurred. And the probability of La Niña this winter is 87%. From historical data, in the winter when most La Niña events reach their peak, and the climate anomalies caused by La Niña, the probability of colder winters is greater.



How to guarantee electricity consumption in winter?

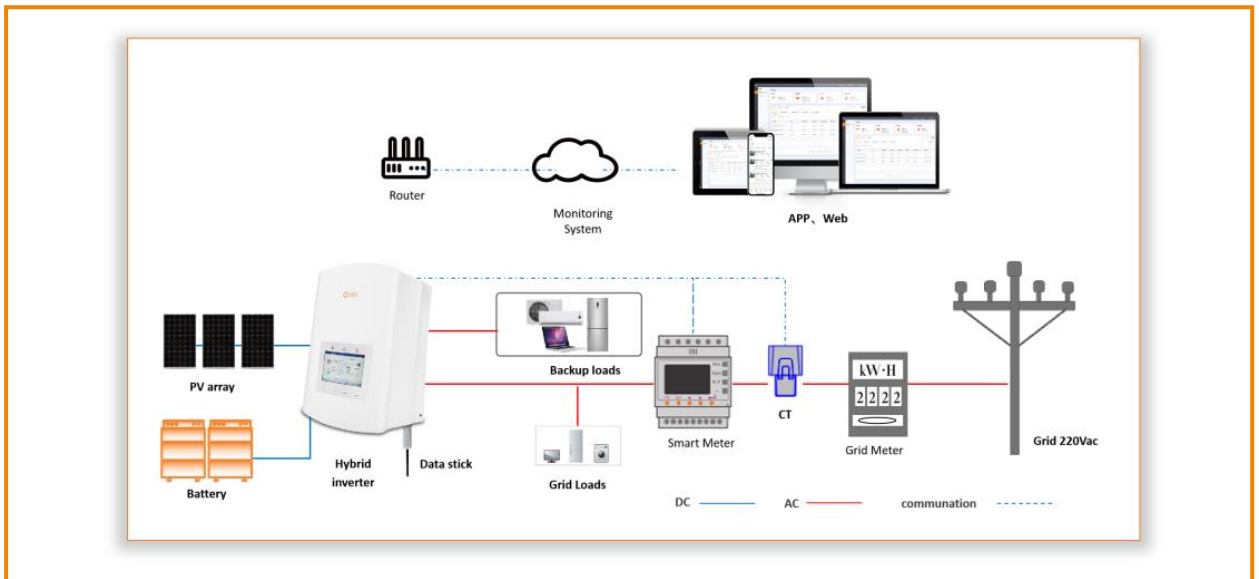
In the cold winter, severe natural disasters, such as heavy snow, cold waves, hurricanes and other weather, will affect the local power supply network and cause intermittent power outages. Especially in the year of La Niña, it is very important to prepare for backup power supply. In this Solis seminar, we will introduce several solutions to guarantee electricity consumption in winter through photovoltaic systems.



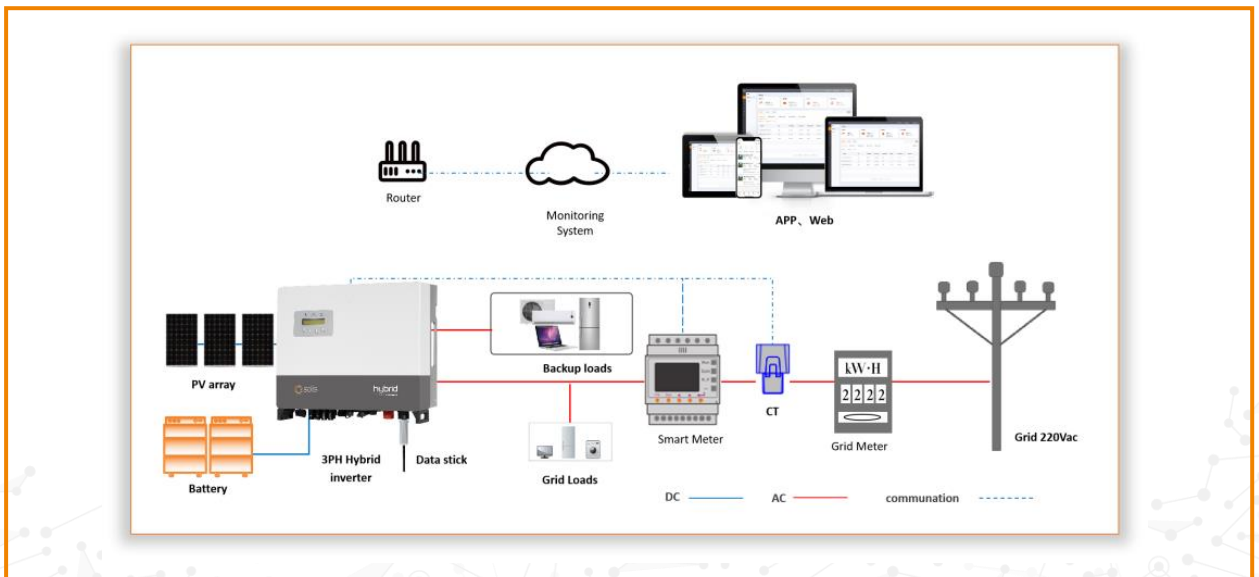
Since ordinary grid-connected photovoltaic systems cannot generate electricity when the grid is out of power, when the grid is damaged due to severe natural disasters, the photovoltaic power generation system cannot provide electricity in time.

To ensure photovoltaic power supply in winter, the following schemes can be used:

1. Use PV hybrid inverter + energy storage battery as power supply system.



By constructing a hybrid inverter + energy storage battery power supply system, the entire photovoltaic system can be guaranteed to operate at any time, stably and effectively supplying important household loads. If you need to use three-phase power or the household electricity load is large, you can also use a three-phase energy storage system.

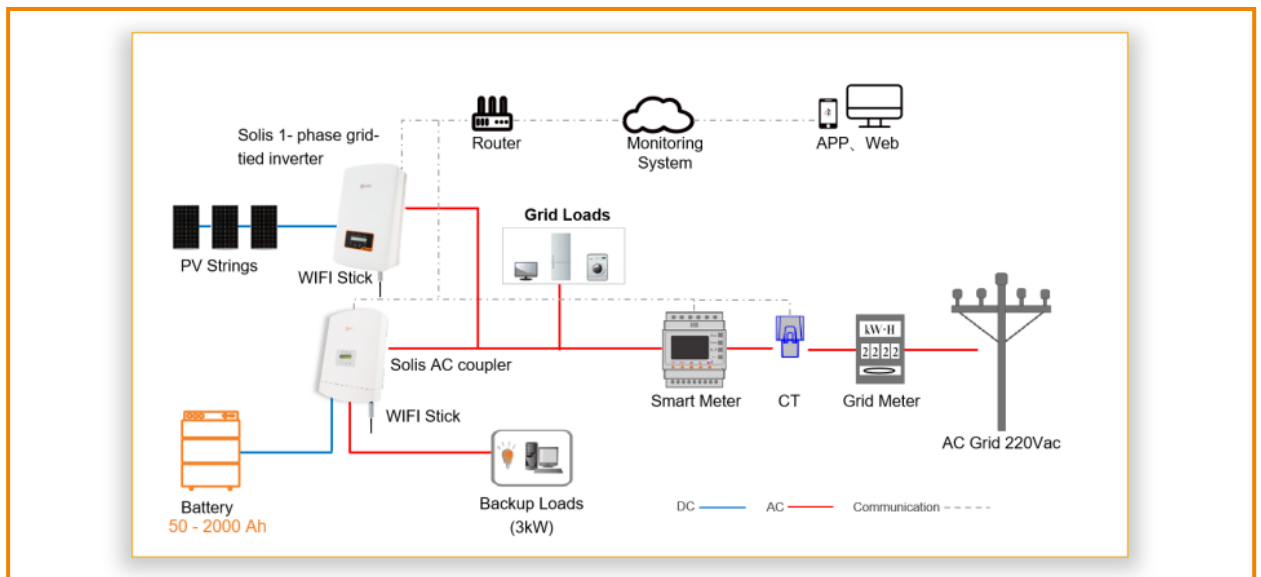




The above solution is suitable for newly-added photovoltaic systems. If a photovoltaic system is already installed, the inverter can also be replaced with a photovoltaic hybrid inverter and other power supply side circuit modifications under the condition that the original main circuit remains unchanged. This modification method will undoubtedly increase certain difficulties.

2. Add AC coupler + energy storage battery as power supply system

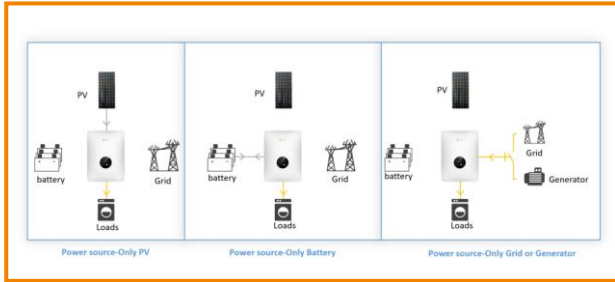
For the completed grid-connected photovoltaic power station, the energy storage system can be additionally expanded without changing the original installation design to achieve the purpose of being a backup power source.



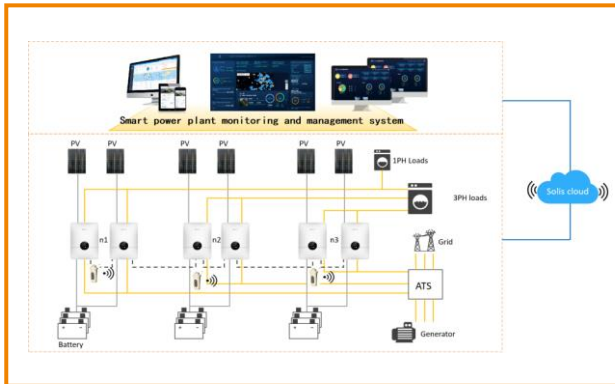
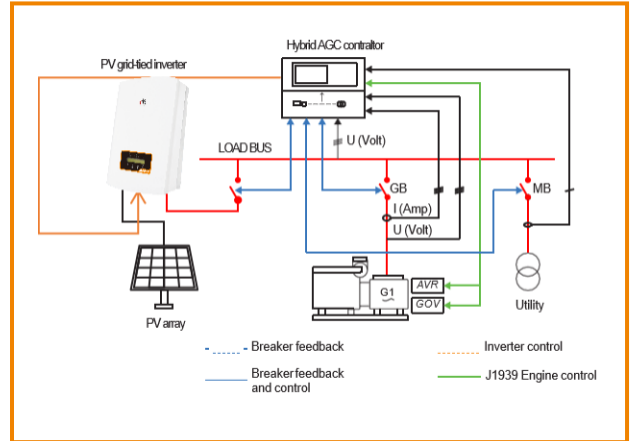
This solution is a better choice for users who have already installed photovoltaic systems. In addition to AC-coupled inverters and energy storage batteries, no additional equipment and costs are required. The installation circuit only needs to be simply modified in the original power distribution test. The storage capacity of the system depends on the capacity of the battery pack, which can provide power for key loads of about 3kW without interruption when off-grid.

3. Adopt pure off-grid energy storage solution

The solution can use Solis new S4-E01P(1-5)K-48V series off-grid energy storage products, which can supply power in scenarios where only photovoltaics, only batteries, or only grids or generators are used to maintain load operation.



At the same time, multiple units (maximum 10 units) can be connected in parallel to form a large single-phase or three-phase power supply system to supply power for large loads.



Conclude

Judging from the current reports from the Meteorological Department, the formation of La Niña is a foregone conclusion, and the occurrence of La Niña events is often accompanied by abnormal weather and temperature. Therefore, in addition to adequate protection for warm and cold protection measures this winter, it is also very important to have power supply and emergency power supply in time.

4. Adopt generator + photovoltaic system solution

Of course, small photovoltaic systems can also use generator + photovoltaic solutions as an additional means of power supply when there is a sudden power shortage, but on small systems, its efficiency is not high, the cost of power generation per watt is high, and the safety of household electricity can not be guaranteed. High pollution and loud noise. Therefore, this solution is not recommended.