

## Solar Storage Solutions

Our solar energy storage charging solution integrates renewable energy sources with storage capabilities to provide sustainable and reliable charging options. By harnessing solar power and storing it in advanced energy storage systems, we ensure the continuous availability of electricity for charging needs. This innovative solution not only reduces dependence on traditional power sources but also contributes to environmental preservation by utilizing clean energy resources.

### **The PV power**

The PV power integrated charging station is an innovative attempt in the construction of new energy vehicle charging stations. The charging station uses clean energy to supply electricity and stores it through PV power generation. The PV, energy storage, and charging facilities form a micro-grid that interacts intelligently with the public grid according to the demand. And there are two different operation modes: grid-connected and off-grid. The use of an energy storage system can also alleviate the impact on the regional power grid when the charging pile is charged with a large current.



## **PV System Applications**

1. Bus stations and logistics hubs: These areas often have large roofs ideal for PV installation. With high daytime electricity demand, fast charging is essential.
2. Older commercial areas and neighbourhoods: Address distribution capacity shortages and balance daily load distribution.
3. Expressway service areas: Support regional and long-distance electric vehicle travel, alleviate range anxiety, and utilize space for distributed PV systems, providing green energy.



## **PV System Strategy**

1. Charging Power Priority: When charging power exceeds network capacity, prioritize using energy storage to charge electric vehicles. If charging power is below network capacity, utilize the remaining capacity to charge the battery until full.
2. Peak Clipping and Valley Filling: During off-peak hours, utilize the grid to charge electric vehicles, with the remaining capacity used to charge energy storage. In peak hours, prioritize energy storage for charging, supplementing with grid power if needed.