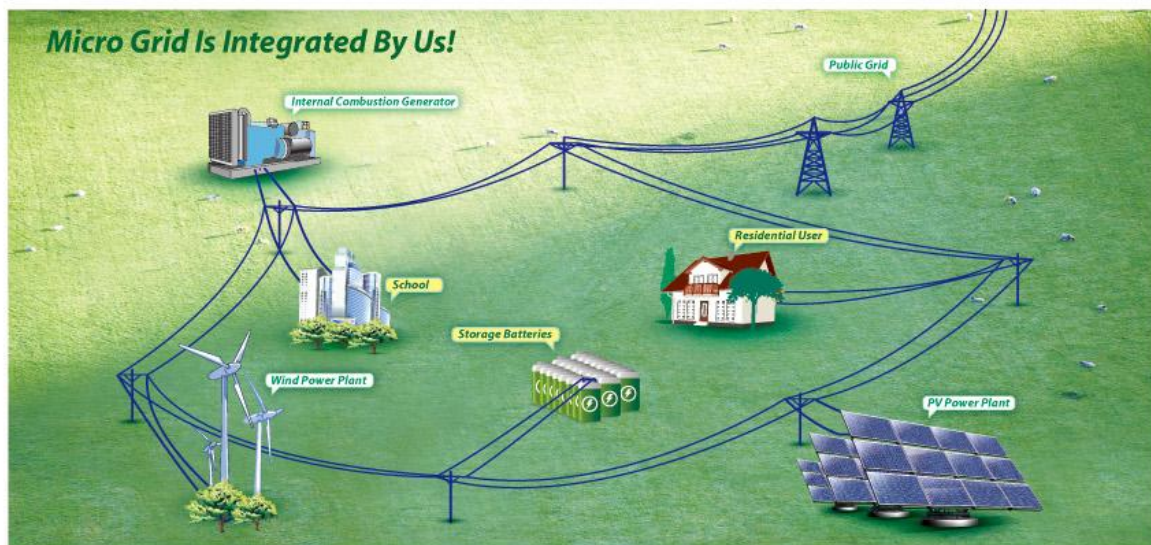




Micro-grid System

Micro-grid is a small-scale low voltage DG* network designed to supply electricity for a small community with specific functions to improve energy management, network control and sustainable operation. A micro-grid can be a housing state, a sub-urban locality, a university, a commercial area, industrial site, etc.

During a utility grid disturbance a micro grid would isolate itself from the utility. When the utility grid returns to normal, the micro-grid automatically resynchronizes and reconnects itself to the grid.



Application: **30 families and a school in China**

Load: **450kWh per day**

PV nominal power: **80kW**

Wind turbine power: **40kW**

Battery storage: **330kWh**

Diesel generator: **100kW**

Annual produced energy: **120MWh**

There still a lot of people live in remote area where no public grid is supplied. In this project, the electrical consumption of the remote area is 450kWh per day. Normally, generator is applied as a back-up in Micro-grid system. With 80kW PV modules, 40kW wind turbines, bi-directional inverters and diesel generators installed, hundreds of people are provided by clean energy.

DG *: Distribution Generation