



> Taiwan Micro-Grid

The Micro-Grid basic systems in Taiwan include renewable energy, energy storage system (ESS), diesel generators and micro-grid energy management system (EMS). Main application scenarios are sorted into the following 3 types:

1

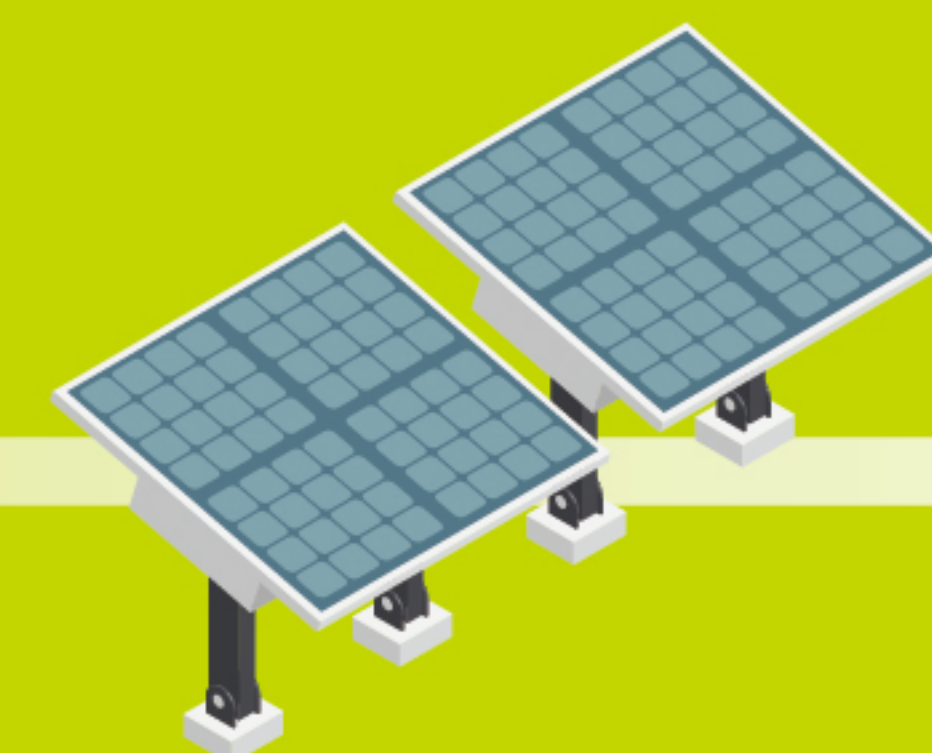
1st Type: **Offshore Island Micro-Grid**. The construction of submarine cables to connect with the main island power grid for offshore islands is costly and not easy to maintain. Furthermore, the transportation cost of diesel generator fuel is quite high, therefore utilizing renewable energy is relatively cheap. Hence, Taiwan had built micro-grid systems running independently in Qimei Island and Wang'an Township of Penghu County, Pratas Islands and other small offshore islands, due to cost-saving and fulfillment of self-sufficient power supply.

2

2nd Type: **Disaster Prevention Micro-Grid**, which is usually established in disaster shelters located in remote areas that are more vulnerable to natural disasters. When natural disasters cause the power grid to partially malfunction, the micro-grid could maintain basic life support such as provide communications, lighting, heating for food, etc. for the local disaster shelter. Current demo projects include Fushan Village in Wulai, New Taipei City; Taoyuan District, Kaohsiung City; Labuan, Wulai Township and Linbian Guan-Tsai Wetlands in Pingtung County...etc.

3

3rd Type: **Community Micro-Grid**. This type of Micro-Grid in Taiwan is usually connected with the main power grid and not operated in islanding mode, or is only able to operate independently for a short while. The main purpose of establishment is to raise the usage of green energy within the community, and to integrate power generation, energy storage and demand response into a virtual power plant which in turn lowers the peak power consumption or provides service to the main power grid. Current demo projects include Sanchong District, New Taipei City; Shalon Smart Green Energy Technology City, Tainan City...etc.



The composition of the Micro-Grid Industry Chain includes Distributed Generation, such as Solar Panel, Small Wind Generators, and Stationary Fuel Cells; Stationary Energy Storage System; Solar Inverters and Energy Storage Power Conversion System (PCS); Electric Monitoring and Control Components, for example Supervisory Control And Data Acquisition (SCADA), Controllers...etc.; system integrators provide services including micro-grid design, system planning, installation, and energy management system pairing. The Taiwan Micro-Grid Industry Chain has taken shape, various companies are involved in all aspects of the industry chain.

Taiwan Micro-Grid Supply Chain



Distributed Generation

● Solar Panel

- Motech
- TSEC
- URE

● Small Wind Generators

- Boltun
- Hi-Vawt
- JETPO

● Stationary Fuel Cell Systems

- Chung-Hsin Electric & Machinery Manufacturing
- M-FIELD
- Toplus Energy

Energy Storage System

- Delta Electronics
- TCC Green Energy
- Tatung
- URE

Inverters & PCS

- Ablerex Electronics
- Allis Electric
- Delta Electronics

Monitoring & Control Component

- Allis Electric
- Chung-Hsin Electric & Machinery Manufacturing
- Controlnet International

System Integration

- Chung-Hsin Electric & Machinery Manufacturing
- Controlnet International
- Delta Electronics
- Tatung

For more suppliers from Taiwan
Please Check Taiwan Micro-Grid Catalog

