

The background of the slide is a photograph of a renewable energy landscape. In the foreground, there is a large array of solar panels, their surfaces reflecting the light of a low sun. In the background, several wind turbines are silhouetted against a sky with soft, orange and blue hues, suggesting a sunrise or sunset. The overall scene is clean and modern, representing sustainable energy.

# Creativity and Challenge

We make a better future with the spirit of creativity and challenge.

# Record of PV & ESS Installation



**PV**

**InstallationCapacity: 381,525 kW**

**ESS**

**InstallationCapacity: 144,424 kW**



Chuncheon Solar Power Pla



Shinpoong Nonghyup Solar Power Pla



Pohang Mabuk Reservoir Solar Power Pla



Jeongseon Nexpo Solar Power Plan



Dongducheon Combined Solar Power Pla



Chuncheon 10 MW solar power plant (2 x 3MW, 2 x 2MW)



Jeongseon-gun Nexpo Solar Power Plant 8 MW solar power plant



2.0MW Floating Solar Power Plant at Mabuk Reservoir in Pohang



Cheongju 2 MW solar power plant



1.7 MW solar power plant in Yeongju



Incheon Sunbeam Naem 2.54 MW Solar Power Plant



Solar Road No. 2 1.95 MW solar power facility



Incheon K-Won 1.24 MW solar power plant



Dongducheon Combined Cycle Solar Power Plant 1,440 kW



Pyeongtaek Soltrebian Solar PV Plant 988kW



Mungyeong Yeongsun Solar Power Plant 1,701kW



Yongin Clean Energy Solar Power Facility 1,085 kW



Busan Middle School 141.05 kW



Gangwon Elementary School 51.94kW

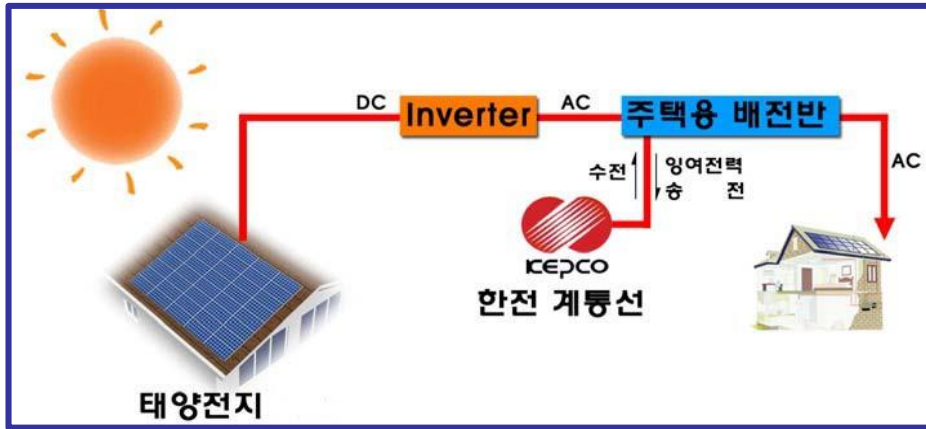


Busan Elementary School 71.5 kW



Chungnam Elementary School 20.46 kW

# Tied Systems for Residential Homes



Residential Connected System Diagram

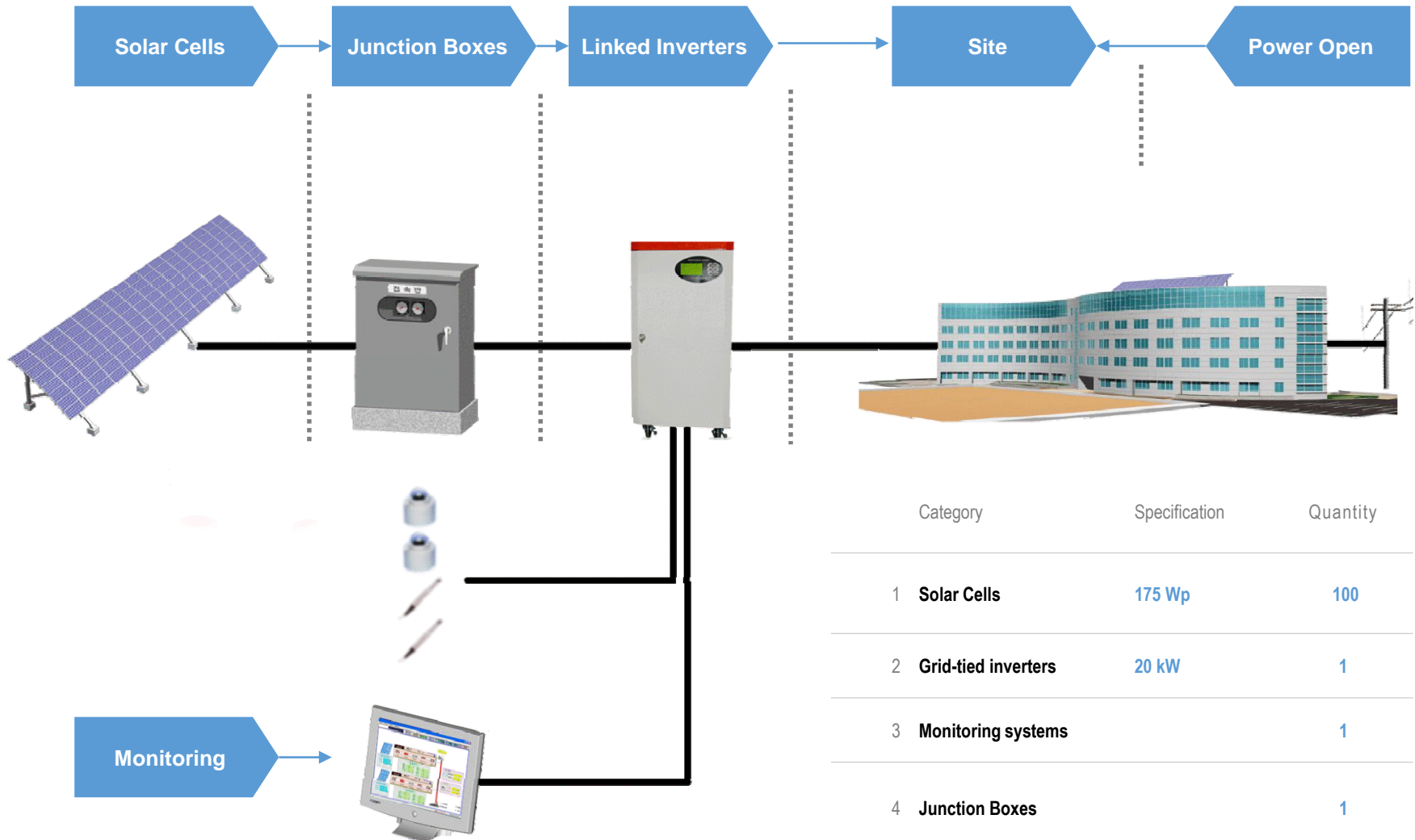


Power Flow Diagrams Based on Weather



Residential Connected Use Case

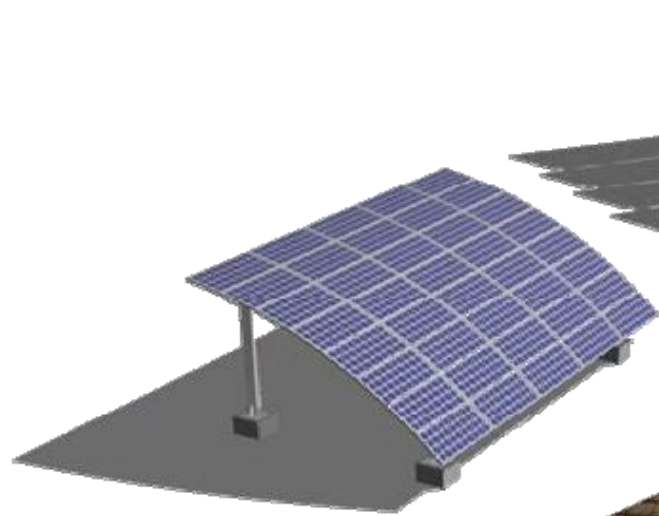
# General Linked System Configuration



Category	Specification	Quantity
1 Solar Cells	175 Wp	100
2 Grid-tied inverters	20 kW	1
3 Monitoring systems		1
4 Junction Boxes		1



# Not Applicable to Residential Installations



Convex (for rooftop applications)



Multi-tiered (with rooftop coverage)



Evaluation furnace type (with rooftop roof)



Upright (with roof)



Concave (with rooftop roof)



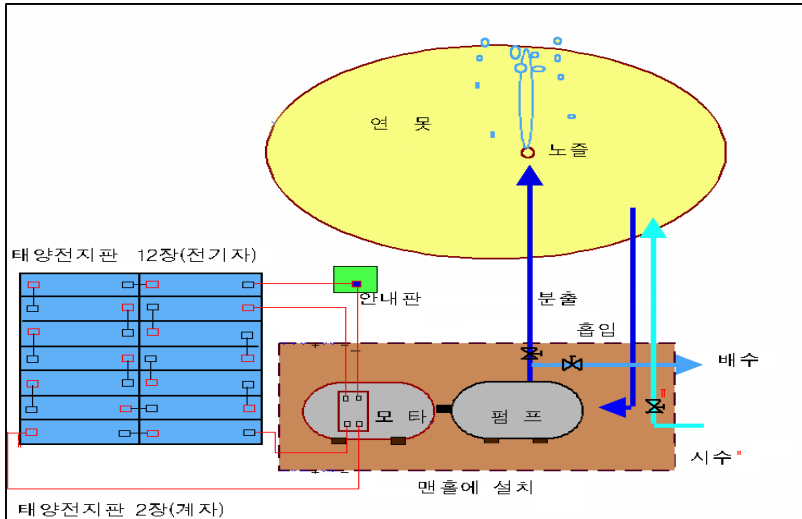
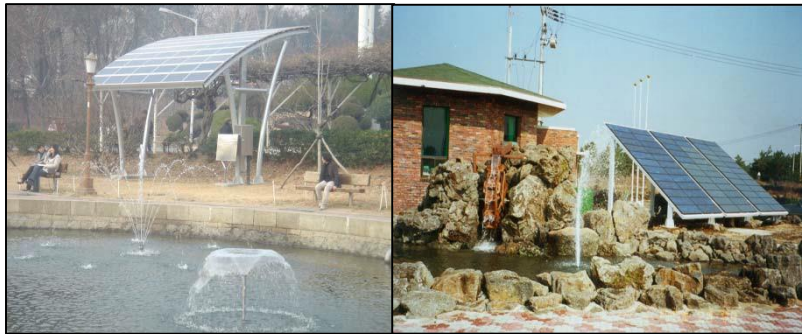
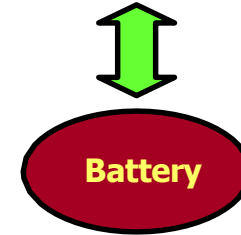
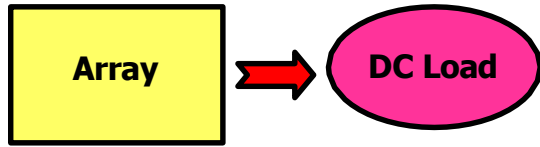
Wavy (with rooftop roof)



Pagora Type (with rooftop roof)



Flat roof (with rooftop)



# General Distribution Use Cases



# Stand-alone Systems (Stand-alone, Off-grid) Use Cases



Location	<b>Hwahwado, Hwajeong, Yeosu, Jeollanam-do</b>	Solar cells	<b>60 KWp</b>
Number of households	<b>34 households (120 people)</b>	Storage batteries	<b>1,170 KWh</b>
Installation Year	<b>1995. 10</b>	Inverters	<b>2 x 25 KVA</b>
Setup costs	<b>804,000 K</b>	Power Regulators Rectifiers	<b>1 x 60 KVA</b>
Transmission Type	<b>24-hour power supply</b>	Generator	<b>2 x 75 KW</b>

Location	<b>Gyeongnam Goseong Samsan Wado</b>	Solar cells	<b>30 KWp</b>
Number of households	<b>13 households (20 people)</b>	Storage batteries	<b>540 KWh</b>
Installation Year	<b>1997. 5</b>	Inverters	<b>2 x 15 KVA</b>
Setup costs	<b>460,000 K</b>	Power Regulators Rectifiers	<b>1 x 30 KVA</b>
Transmission Type	<b>24-hour power supply</b>	Generator	<b>50 KW</b>

# Construction Examples of BPV Installation in Korea



Installed Capacity 50 kW

Location Jeonnam National University,  
Jeonnam, Korea



Installed Capacity 50 kW

Location Gwangju Seo-gu Commerce Citizen  
Park



Installed Capacity 26 kW

Location Daejeon Techno Valley



Installed Capacity 184 kW

Location Gurye-eup, Gurye-gun, Jeollanam-  
do "Seomjin-gang Local Fish  
Ecology Museum"

# Construction Examples of BIPV Installation in Korea



Installed Capacity 15 Kw (3 Kw)

Location **Korea Institute of Energy Technology, Daejeon**



Installed Capacity 1.8 kW (Amorphous Thin Film Transmissive Solar Cells)

Location **Kolon Construction Technology Center, Yongin, Gyeonggi-do, Korea**



Installed Capacity 12 kW

Location **Ujin Agricultural Expo Center, Gyeongsangbuk-do**



Installed Capacity 13 kW

Location **Bictech, Icheon-si, Gyeonggi-do**