

# SOLAR LIGHT KOREA

For Renewable energy  
For Eco-friendly energy





ENERGY TO  
MAKE A BETTER LIFE



**SOLARLIGHT KOREA**



## Message from CEO

**SOLARLIGHT KOREA**  
supplies electric energy where  
electric energy is needed.  
The goal of this company is to  
provide stable electrical energy to  
every customer.

CEO      Wol Young Kim

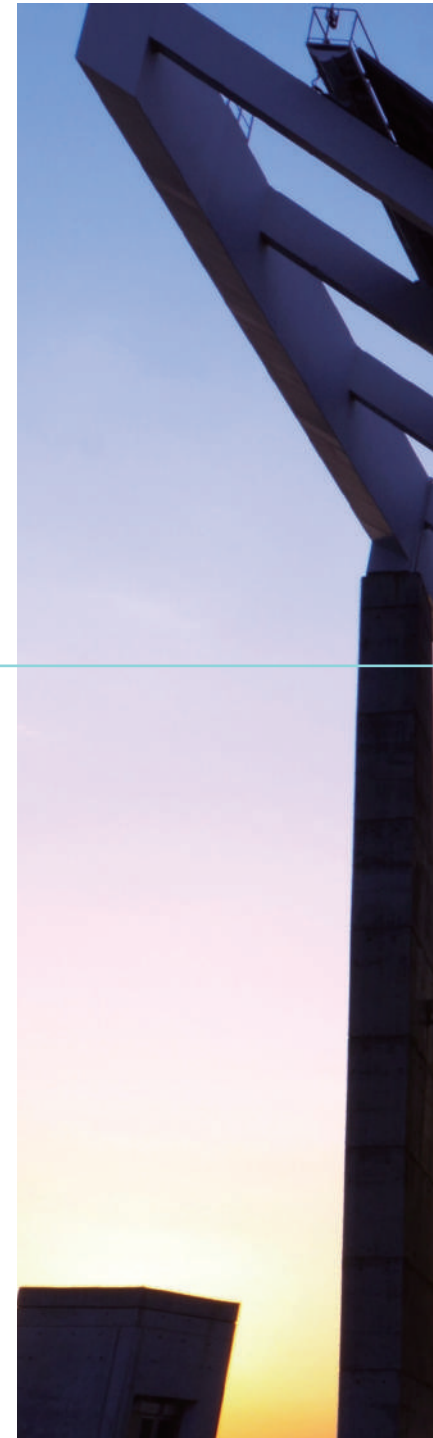
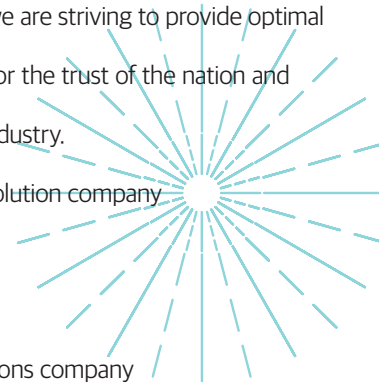


SOLARLIGHT KOREA based on its mission to supply electricity easily  
and conveniently wherever energy is needed, we are striving to provide optimal  
solutions for energy supply, and is responsible for the trust of the nation and  
customers throughout the renewable energy industry.

This company is growing into a sound energy solution company  
through sincere and excellent quality.

Promise to customers as a reliable energy solutions company  
that to make sure to keep to achieve customer impression and  
satisfaction all the employees are giving their best efforts to specialization and  
efficient management of passion and creativity are committed  
in their respective areas with the highest value projects.

We promise that this does not meet constantly innovate  
and try to have a sense of responsibility as a trusted partner  
for our customers in creating better value.





Energy

Easy

Sunlight

Pioneer

**SOLARLIGHT**  
KOREA

Green  
growth

Safety

For **Renewable** energy  
For **Eco-friendly** energy



# POWER SUPPLY SYSTEM

OFF-GRID SYSTEM

HYBRID SYSTEM

SPECIAL USE

# SMART GRID

# ESS

# UPS / UES

UPS

Medical

Financial



# PHOTOVOLTAIC POWER GENERATION SYSTEM

# SOLIGHT

# MAINTENANCE

POWER GENERATION MATERIALS

SOLAR MAINTENANCE

ESS

SOLIGHT

SOLAR RESEARCH INSTITUTE

HYBRID SYSTEM

GRID SYSTEM

OFF-GRID

**SOLARLIGHT**  
KOREA





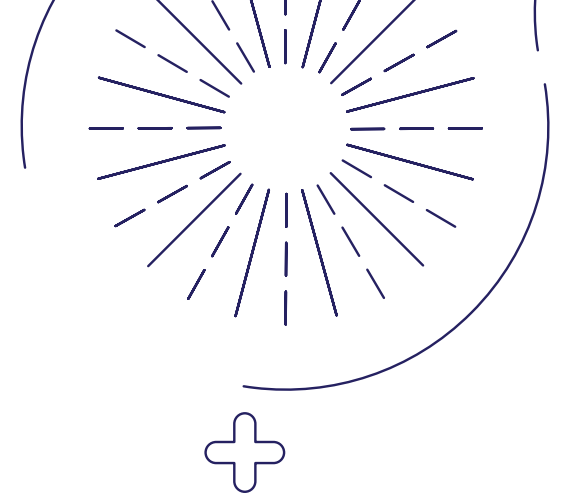
POWER SUPPLY SYSTEM

# 01 OFF-GRID SYSTEM / HYBRID SYSTEM



The widespread green energy to keep pace with the flow of the green growth era, are advertised.

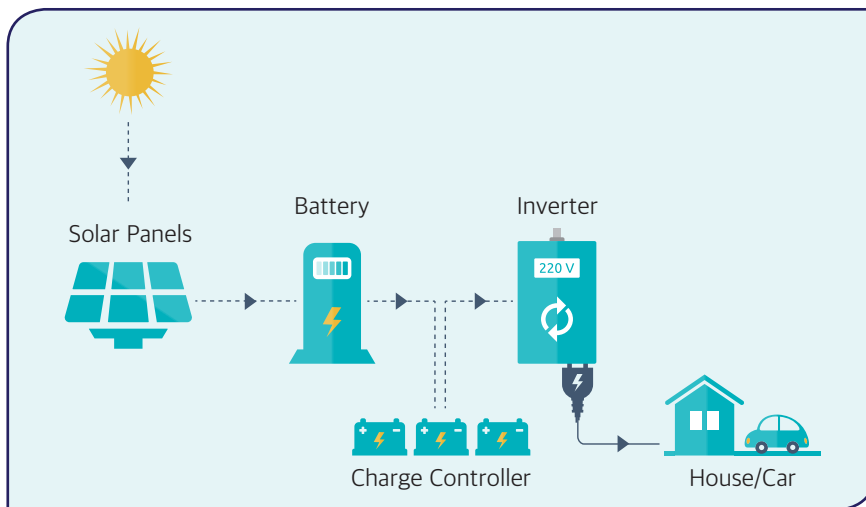
SOLARLIGHT is providing the most optimized solution to use energy easily, safely and conveniently, no matter when and where you live.



# POWER SUPPLY SYSTEM

## 01) OFF-GRID SYSTEM

### Configuration

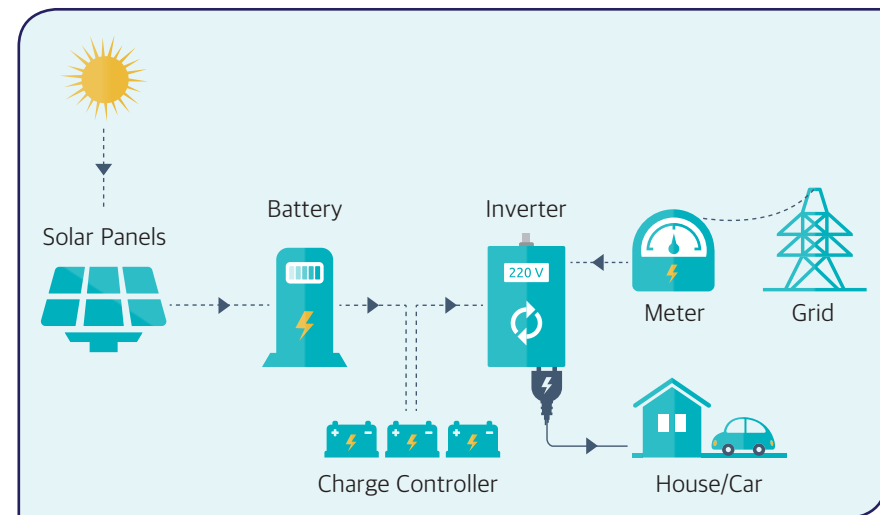


### Abstract

OFF-GRID (Stand-alone solar, micro grid) is a power generation system that can solve the production and supply of electricity generated by sunlight independently without relying on the power grid. (Small-capacity, high-capacity available)

## 02) HYBRID SYSTEM

### Configuration



### Abstract

OFF-GRID (Stand-alone solar) and ON-GRID (Power grid) are stable system composed of only the advantages of each other by combining.

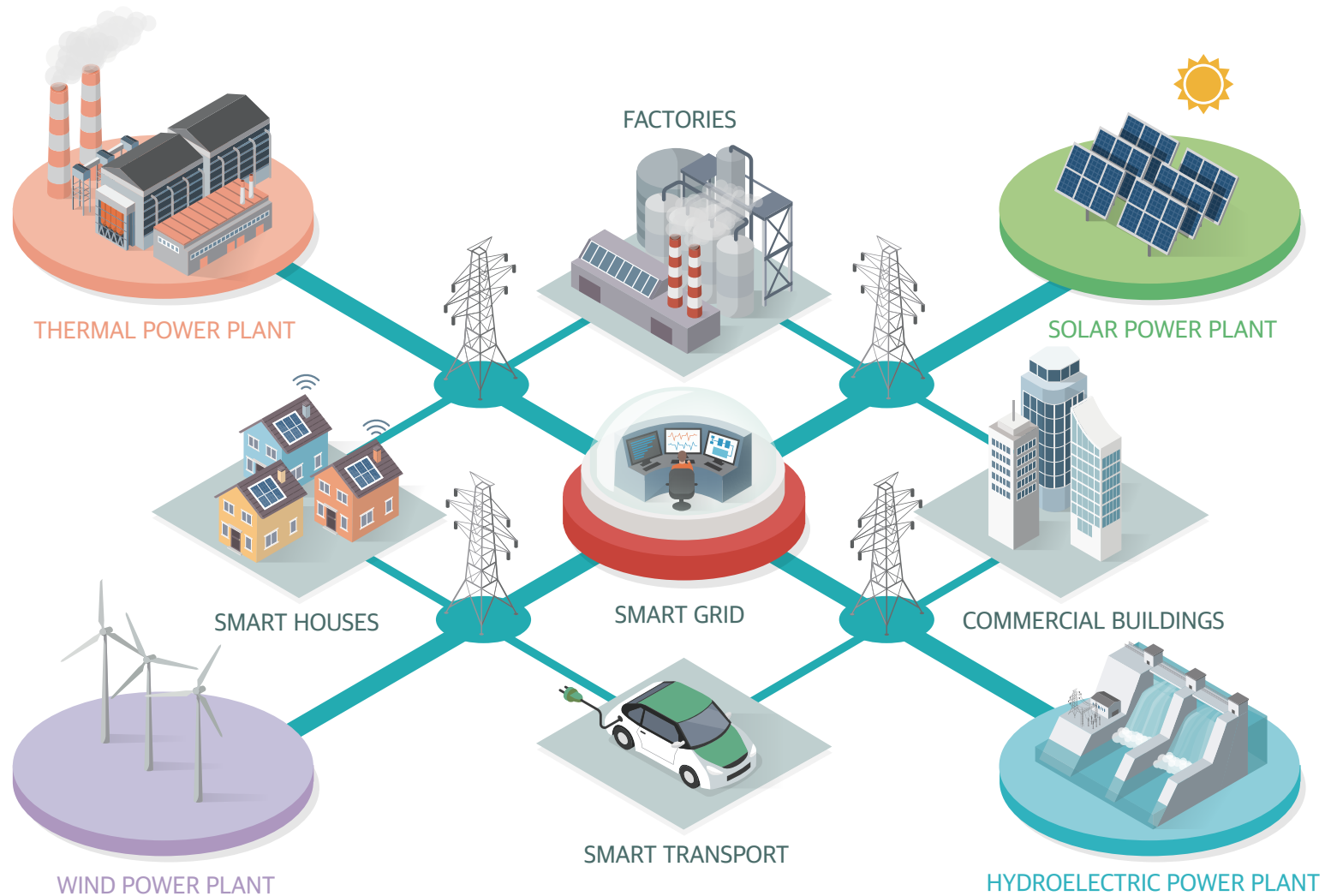
### 03) SPECIAL USE





# SMART GRID

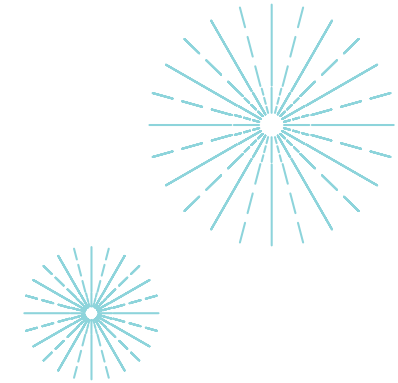
Smart Grid system by combining the information and communication technology to produce, transport, and consumption processes of the electro enhanced efficiency by the supplier and the consumer interacting with each other





# 03 Energy Storage System

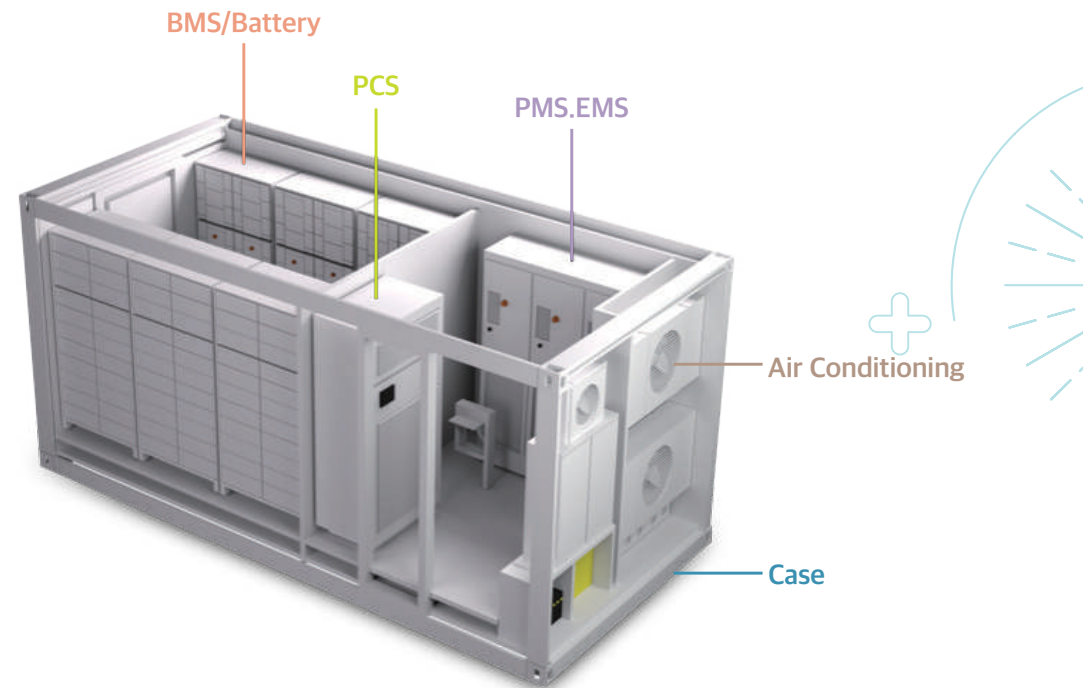
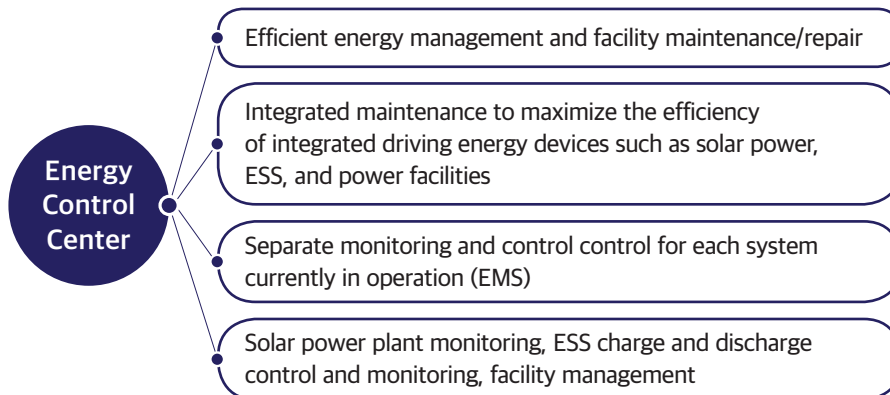
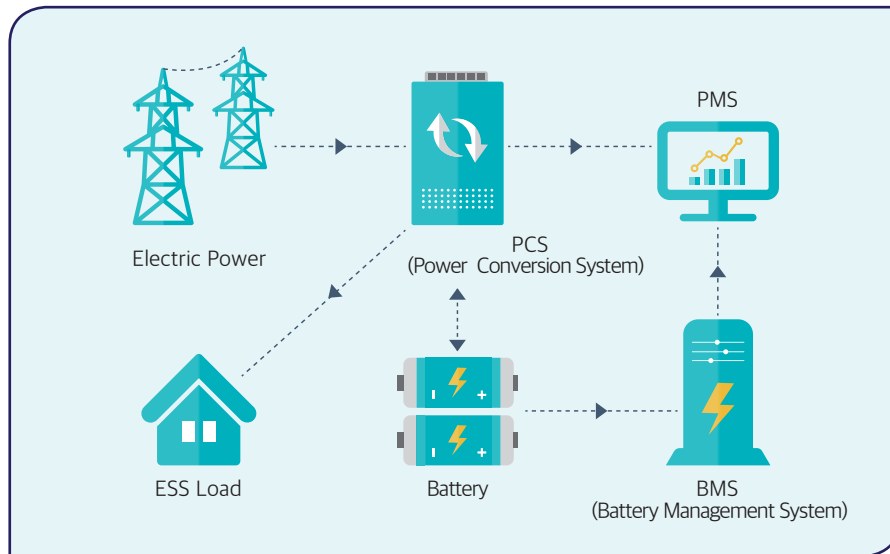
## ESS



The energy store device means the energy storage device has stored energy in advance and when refers device that can be use energy when needed. ESS is a component of the power infrastructure and is one of the key elements for realizing the next generation power grid such as a smart grid, and recently, a convergence type energy storage facility that combines renewable energy with ESS is in the spotlight.

# ESS

## Configuration



### Battery

Key components of the ESS to save electricity

### BMS

Software that manages and controls the battery Battery status information is delivered to the PMS

### PCS

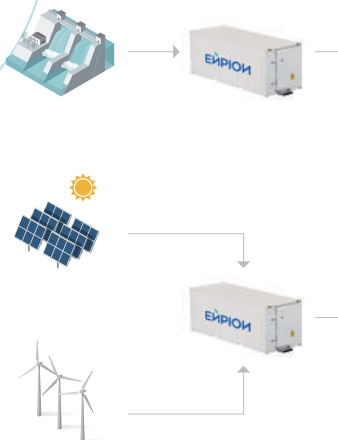
AC and a DC two-way converter

### PMS

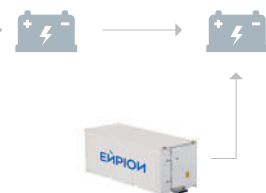
The control tower role of the ESS  
A system that analyzes data in conjunction with a software Sensor/measurement equipment that adjusts the amount and time of charging and discharging of the ESS that controls the PCS and BMS, and controls it to operate at the optimum efficiency according to the input value.

## Purpose

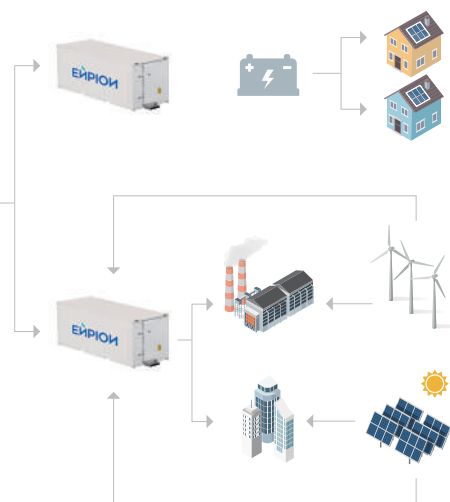
### Power generation power sup



### Transmission · Distribution



### Consumer



### Micro-Grid



### The association ESS

The renewable power increases the power quality-wire and efficiency of renewable energy by the to energy supply efficiency is degraded and the output is by demand changes instantly unstable, resulting in a power system degradation buffer the output variations in the charge and discharge of the ESS according to the power demand .

### Frequency adjusting ESS

In the power of transmission and distribution network view correcting the frequency ESS discharge for the frequency fluctuations caused improves system stability and power quality.

### Commercial/Industrial/Home ESS

- Load leveling will reduce electricity rates in the light load time charging, peak load time for discharge.
- Peak load reduction for the ESS contract power supply over power to limit the base rate increase.
- Utilizing the power outage ESS as an emergency power outage, minimizing damage to major equipment, and supplies power to the critical load.

### ESS for Micro-Grid

It is a small-scale independent power grid that is configured for self-sufficiency of electric power, and is a next-generation electric power system that supports renewable energy and ESS is fused and combined.



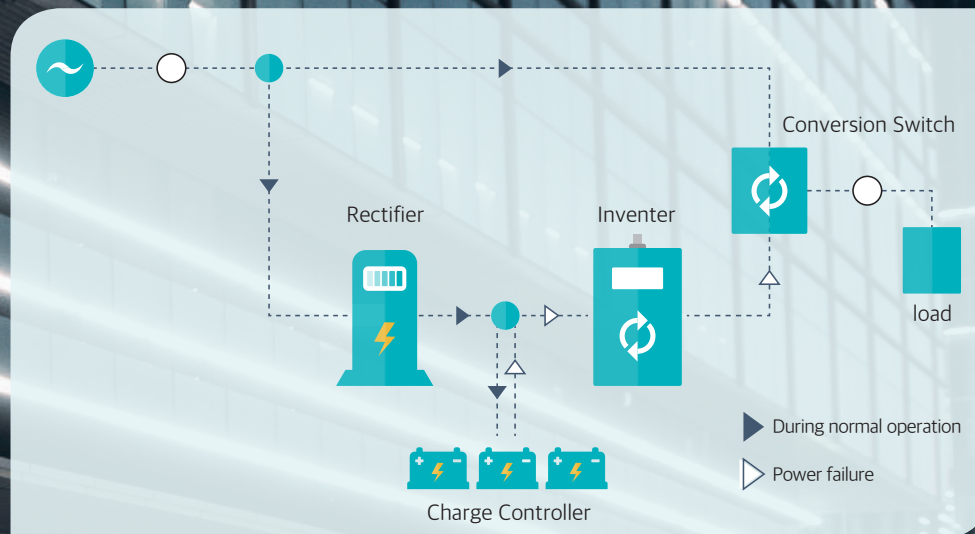
04

UPS, UES

# POWER SUPPLY SYSTEM

## 04) UPS, UES

### Abstract



### Abstract

#### UPS (Uninterruptible Power System)

A device that continuously supplies AC power to a load by using the energy accumulated in a battery during a power failure.

#### UES

UPS+ESS :

Anti-static function + Electricity saving function

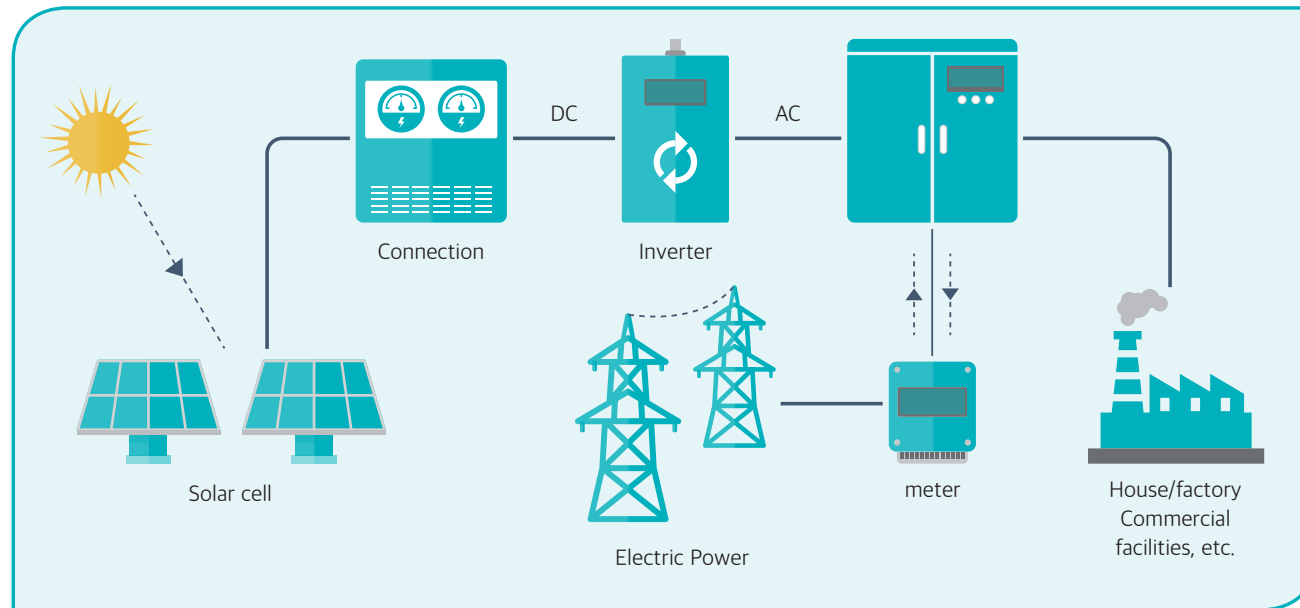
The power generation system based on the RPS system is for private operators to sell all of the electricity generated by solar power using the safety line, while the power consumed by the buildings uses the existing power line.

RPS System Based

# 05 SOLAR POWER GENERATION BUSINES



## Configuration



## Application field

### Open Area

Photovoltaic power generation using idle sites such as open area provides long-term and stable profits and can realize rapid profits.

### Building

The photovoltaic power generation using the existing roof of the building is a highly economical energy with a short payback period, and is effective in increasing the value of building assets.

### Dams / Reservoirs

Water photovoltaic power generation is a new type of power generation that combines ground solar power technology that installs solar modules on the ground with floating structure technology, and enables efficient use of land by installing solar solutions on water such as dams and reservoirs.

### Salt field, Reclamation area, Coastal area

Photovoltaic modules can be stably developed in salt farms, reclamation areas and coastal areas by using excellent corrosion-resistant equipment.



The Plant factory and home plant growth LED is used in the solar module to reduce the electricity bill, and it can be converted into grid power at night to supply light when needed 24 hours a day.

## 06 Combination of Solar light and LED

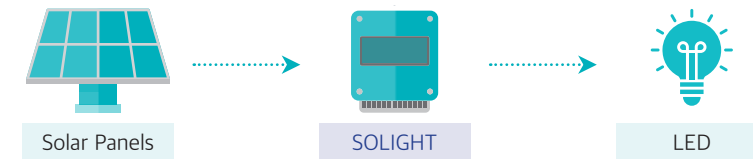
# SOLIGHT



## Configuration

- Combines solar light and LED to generate natural light effect.
- Provide natural light effect to indoor occupants with only solar light and LED bulbs.
- Economic effect : No electricity charges
- Easy and quick installation without interior damage that causes external damage to the building
- It is automatically converted to electric power grid at night and LED can be use.
- It can be used in plant factories and home gardens by promoting plant growth according to the cultivation method and crops.

## SOLIGHT Configuration



As a partner for the prevention of power outages and efficient power management of medical facilities by operating a total service program to prevent power outages in medical facilities, we provide a total service that can guarantee the supply of medical services and medical resources without power outages through the partnership. Based on the know-how and technology possessed as a company specializing in designing and manufacturing supply systems, it is possible to prevent secondary accidents due to power outages and to prevent failures of computer networks, equipment, and facilities, and to stabilize them by establishing a spare power facility that combines power storage and uninterruptible power supplies Operation guaranteed.

Medical UES

# 07 MEDICAL POWER SUPPLY SYSTEM



## SOLAR LIGHT Medical UES

### Energy storage System

Battery that stores electricity

ESS

UPS

### Uninterruptible Power Supply

A device that helps instantaneous power supply in case of power failure

UES

### Uninterruptibel Energy System

Solve problems caused by instability of grid power

\*Problems : Power failure, risk of medical injury, damage to precision medical equipment



Public Health Center



Hospital

Provides high-quality products at reasonable prices to overseas regions such as Southeast Asia and Africa where power supply is unstable, including in Korea.



### Medical remote support system

Development of a system that can remotely provide medical support using PMS (ICT combination) while supplying power to computers with ESS



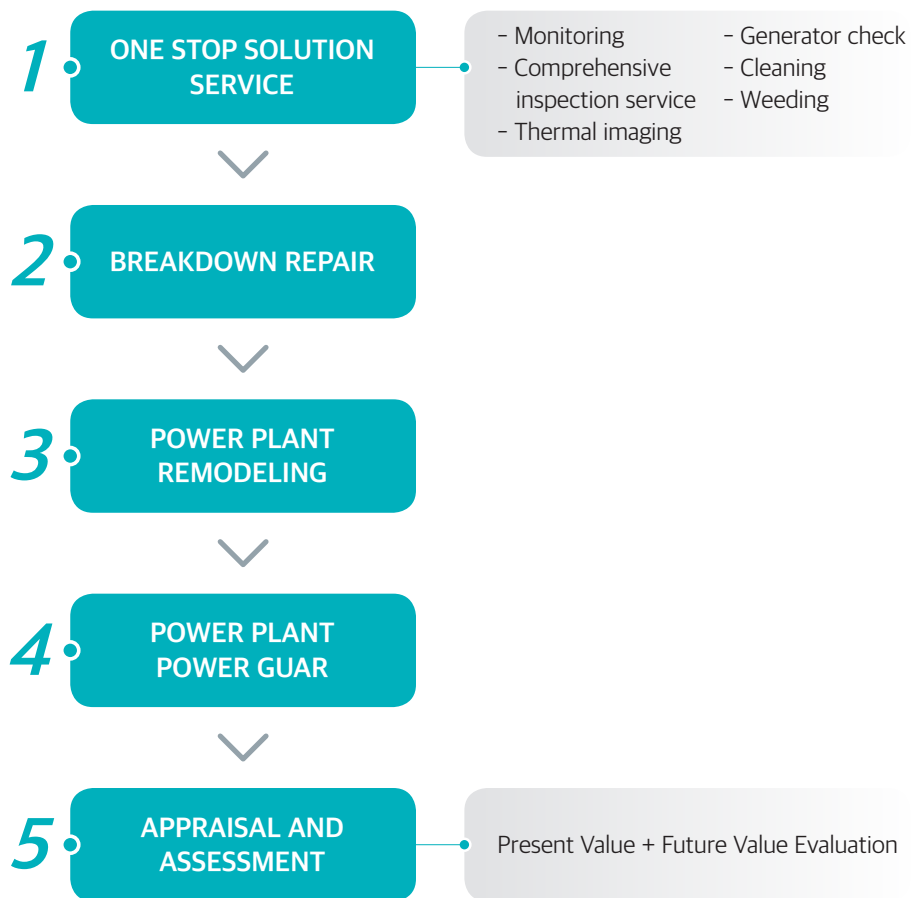
08

SOLAR ESS

MAINTENANCE



## SOLAR Maintenance





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