

**Factory** 19-17, Donhampyeongsandan-gil, Hakgyeo-myeon, Hampyoung-gun, Jeollanam-do, Republic of Korea  
**Seoul office** #1213, IFC Mall, 10, Gukjegeumyung-ro, Yeongdeungpo-gu, Seoul, Republic of Korea  
**Dongtan office** #1022, SH Time Square, Dongtandae-ro 635, Hwaseong-si, Gyeonggi-do, Republic of Korea  
**Naju office** #420 EVIT, 370 Green-ro, Naju-si, Jeollanam-do, Republic of Korea  
**Headquater** #320, KETI, 226, Cheomdangwagi-ro, Buk-gu, Gwangju, Republic of Korea  
**Overseas** 8th Floor KSC, Building 8-C DLF Cyber City, Phase-2 Gurgaon Haryana-122002, India

KEPCO Energy-Valley STAR company

**Contact us +82-10-5495-3055**

## Company History

### 2015

Jan, Established BA Energy R&D Lab  
Oct, Awarded grand prize from Gwangju Start-up Festival  
Nov, Participated in Dubai Construction Fair(BIG5)  
Dec, ISO9001 Certificate

### 2016

Feb, Contracted MOU Investment of Jeollanam-do  
Aug, Participated in Iran Construction Fair  
Dec, Contracted MOU Technology Agreement of the Green Energy Institute  
Dec, Certification of Family friendly Excellent Company by the Ministry of Gender Equality and Family  
Dec, Completion of Hampyeong factory

### 2017

May, Designated as Energy New Industry promoting company of KEPCO  
Sept, Participate in the BIG5 Construct India 2017  
Nov, Selected as a promising export company in Jeonnam Techno Park  
Nov, Prime Minister's Commendation of Entrepreneur 2017  
Nov, Get certificates MAIN-BIZ (Innovative business management corporation)

### 2018

Apr, Energy Valley corporate investment, Public institution cooperation agreement  
May, Commendation of Excellent business man by Small and Medium Business Association  
Jul, Registered KRX for KSM  
Dec, Announcement of SLUSH100 in Finland (Energy Field)

### 2019

Feb, MOU with Hyundai Electric and Energy System  
Apr, MOU with STPC in Sweden regarding Nordic countries  
Apr, MOU with OCI Power (Son company of OCI)  
May, IR pitching & networking at K-Startup NIGHT in Korean Embassy in Paris, France  
May, IR pitching & Contest at VIVA TECHNOLOGY held in Paris, France  
Jun, Designated as KEPCO Energy-Valley STAR company  
Jun, "Raised fund 1.5 Billion KRW investment" from Korea Credit Guarantee Fund  
Jul, Global Top 10 of Starters Hub Scale in Turkey accelerating for 3-6 months  
Sept, The opening of an Indian office  
Oct, Establishment of Indian Office and Establishment of Local JV



ESS safety management system

Contributing to the safety of the global energy industry and becoming an energy unicorn company by concentrating export capabilities



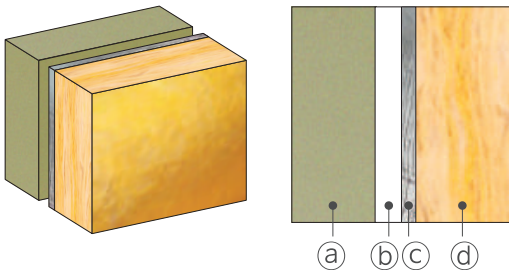




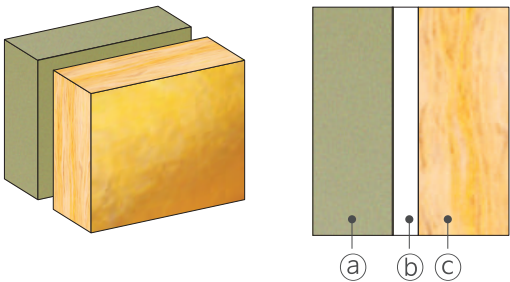
# ESS Energyhome Full Type Structure

## Wall structure

- Battery room** thermal transmittance : 0.15W / m<sup>2</sup>.K
- A. Urethane Panel(75mm)
  - B. Fair floor(24mm)
  - C. Radiant barrier(6mm)
  - Option : Vacuum Insulation Panel
  - D. Glass wool panel(100mm)

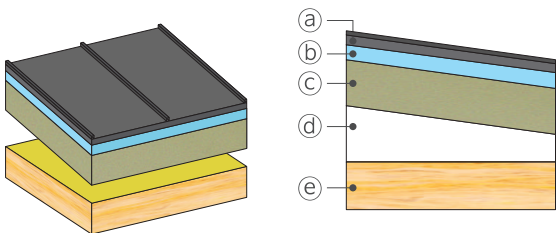


- PCS room**
- A. Urethane Panel(75mm)
  - B. Fair floor(24mm)
  - C. Glass wool panel(100mm)



## Roof structure

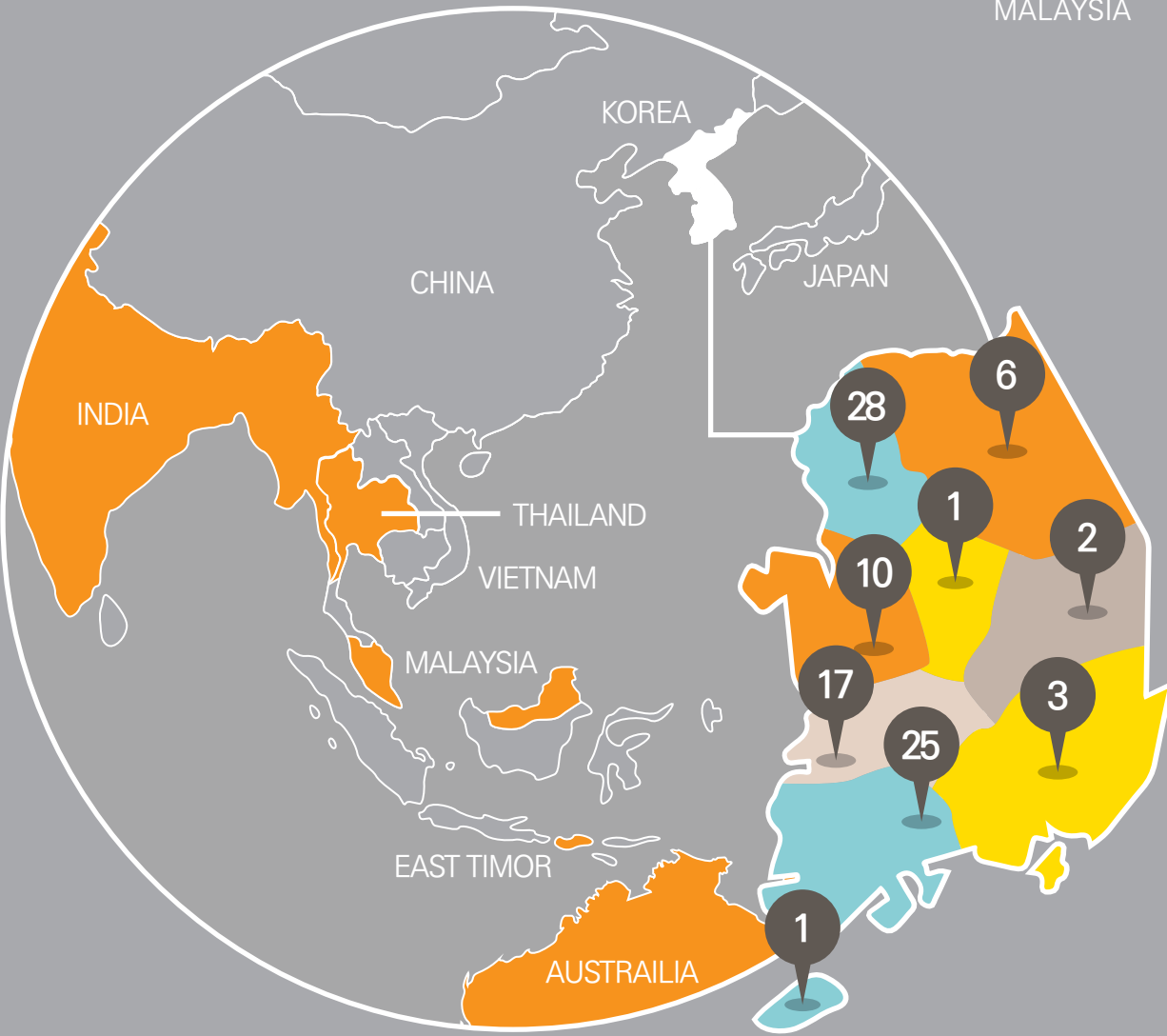
- thermal transmittance : 0.15W / m<sup>2</sup>.K
- A. Zinc panel(0.5mm)
  - B. Waterproof sheet(1.4mm)
  - C. Urethane panel(75mm)
  - D. Fair floor(24mm)
  - E. Glass wool panel(100mm)



## Delivery and order status

As of September 2019/Standard for September 2019

Jeollanamdo 25 SITE	Chungcheongbukdo 1 SITE	Gyeonggido 28 SITE	EXPECTED
Jeollabukdo 17 SITE	Gyeongsangnamdo 3 SITE	Gangwondo 6 SITE	THAILAND
Chungcheongnamdo 10 SITE	Gyeongsangbukdo 2 SITE	Jeju Island1 SITE	EAST TIMOR
			INDIA
			AUSTRALIA
			MALAYSIA



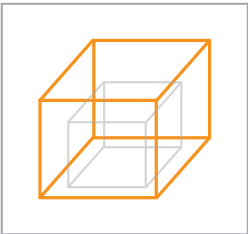
## Representative Partner Company



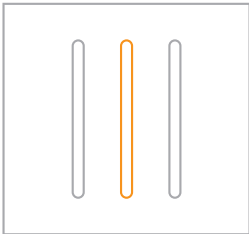
# ESS Energyhome Features



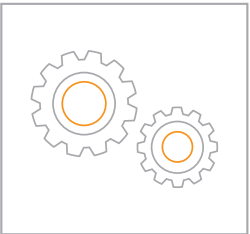
Developed as an optimized space management solution for the safe management of ESS. By applying the double wall, triple insulation system, the our company's patented thermal energy management technology has been integrated to improve the safety of the ESS. The company has reduced production costs by about 30% through quality control and shortened production period through mass production of all process plants.



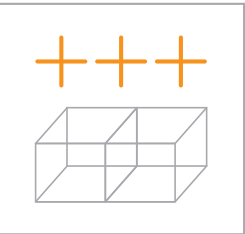
**Double skin**  
Application of safety double skin system



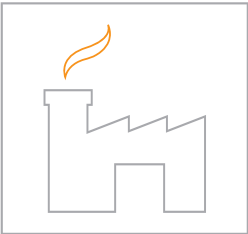
**Triple insulation design**  
Safety temperature and humidity management



**Structural design**  
Safety structure design



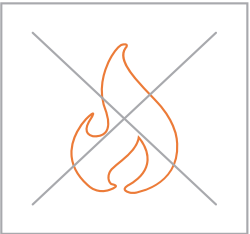
**Modular unit scalability**  
Build module units for safety



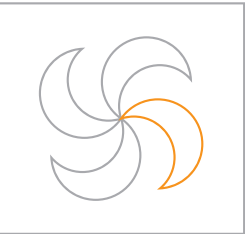
**Factory mass production model**  
Uniform Quality Control



**Excellent economy**  
Reduced manufacturing and Air Conditioning costs



**Non-inflammable System**  
fire spread prevention system



**Advanced Air Conditioning and Fire protecting System**  
Safety Air Conditioning system

3-year warranty for A/S

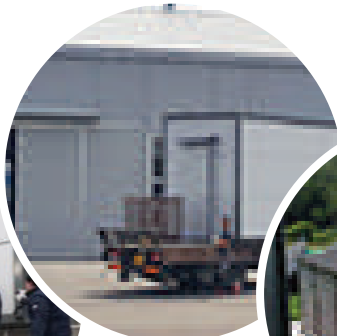
Production and delivery process



**STEP1**  
Factory mass production



**STEP2**  
Product loading



**STEP3**  
Inspection shipment



**STEP4**  
Field installation

※ Domestic ESS operation and Initial Operations Maximum Engagement, accident rate 0% As of 2019.08

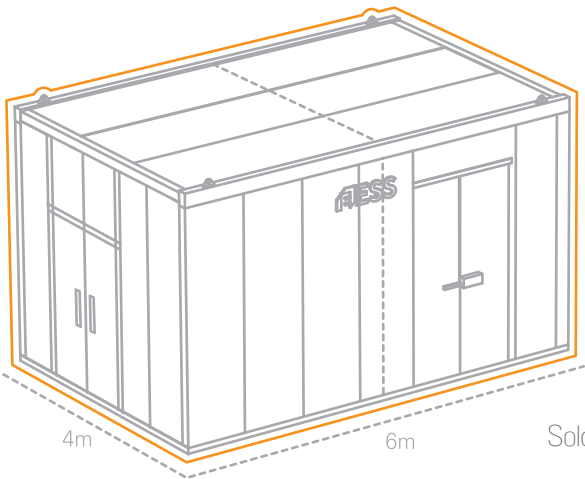
# ESS Energyhome



Energy-saving ESS safety management system developed by a company specializing in thermal energy management  
Minimization of Heating and Cooling Energy Consumption through a Two-Walled, triple Insulation System

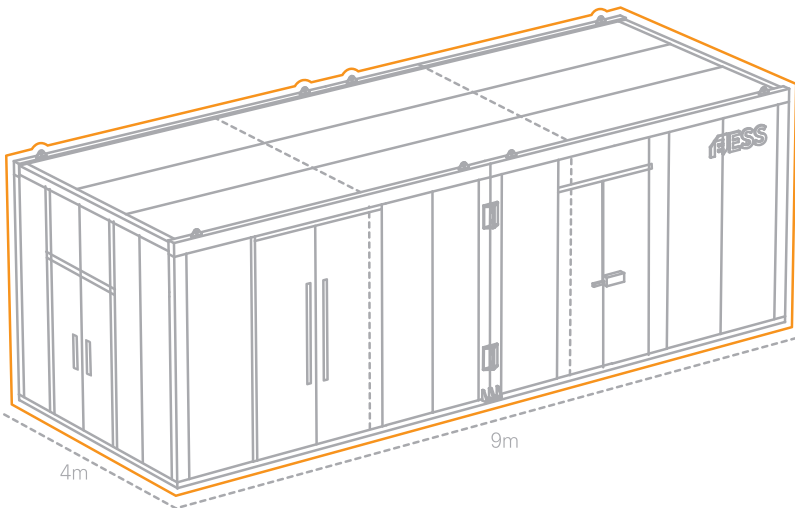
1 module 100kW

Solar photovoltaic power station ESS Safety Management System



2 modules 500kW

Solar photovoltaic power station ESS Safety Management System



3 module 1MW

Solar photovoltaic power station ESS Safety Management System



## ESS Energyhome is

a module, fire fighting, Air Conditioning, and EMS system adapted for the safe management of ESS. It is a product that combines our material and ICT technology necessary for thermal energy management to enable safe and economical ESS operation through the double skin and triple insulation system.



Solar photovoltaic power station ESS Storage (100kW) 1 Module