

## E-house Solution Micro-grid Solution

High-safety and High-performance  
One-stop Solution



### ▶ About YATEC

YATEC Engineering Corporation was established in 1993 through the joint venture of TECO Corporation and YASKAWA Electric Corporation, thereby jointly expanding industrial automation and energy automation businesses in Taiwan and Southeast Asian regions.

YATEC Engineering Corporation is a smart energy system integrator that provides energy creation, energy storage, and energy saving 3-in-1 service models and package plans. With the rise of green energy industries and demand for energy conservation and carbon reduction, YATEC has proactively introduced technologies from Japan, Germany, and the US in order to enhance its technical capabilities. In addition, solar PV, power saving, and energy storage systems have been successively established while entering the cloud energy management sector. Looking ahead, the firm will focus on research and development in raising the efficiency of equipment and energy utilization, reducing carbon emissions, and providing high-performance solutions and technical services, hoping to achieve the goal of sustainable enterprise management.

# 安華機電

*YATEC Engineering  
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## ▶ Product Introduction

### E-house Solution

YATEC provides “E-house Solution” used for different venue applications. The basic components include transformers, switchgear, power conditioning system (PCS), energy management system (EMS), and power-related equipment, which are integrated into a container for transportation convenience. YATEC conducts assessments according to users’ load curves and sites, then quickly sets up energy storage equipment projects; the firm also provides optimized renewable energy applications, effectively manages system power usage, and supplies table power and equipment for emergency power use.

<b>Project Name</b>	TECO Westinghouse Motor Company Energy Storage System
<b>Project Description</b>	The E-house Solution is set up in mines, which is paired with battery energy storage system (BESS) and solar energy system, providing mines with stable green energy and emergency power supply.
<b>Location</b>	New Mexico, US
<b>Operation Period</b>	From July 2020 till present
<b>Content</b>	E-house Solution, battery energy storage system (BESS), including power control system (PCS), battery packs, etc.
<b>Function</b>	PV Smoothing, auto frequency conditioning (AFC) service

### Achievements regarding utilization of E-house Solution within Energy Storage Systems



Case studies in New Mexico, US

### Micro-grid Solution

In response to the needs of offshore islands, industrial users, high-tech plants, and communities, YATEC has integrated solar energy system, energy storage system (ESS), and energy management system (EMS) to achieve the goals such as energy arbitrage and micro-grid energy management in three aspects: energy creation, energy storage, and energy saving. In particular, the solar PV system is set up in rooftops to reduce utility power usage, utilize the battery energy storage system (BESS), raise the stability of power supply, and use the energy management system (EMS) to control and diminish the volume of power demand during peak hours.

In addition, YATEC provides one-stop services from design planning, equipment procurement and installation, to rapid system integration to assist companies in supporting green power, combating climate change, fulfilling corporate social responsibility, thus turning the enterprises into green power users through concrete actions.



Offshore island micro-grid in Micronesia



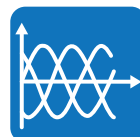
#### Renewable Energy Smoothing and Stable Output

Compensate for fluctuations in the renewable energy output. System stability is raised due to the black start feature.



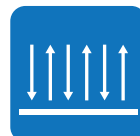
#### Emergency Power

Avoid short-term power outages to ensure safe power supply for equipment.



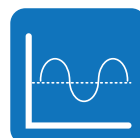
#### Power Quality

The voltage is regulated through active and reactive power compensation, thereby raising power quality.



#### Frequency Regulation

Compensate for fluctuation within the grid frequency, thereby improving system stability.



#### Peak Shifting

Balance power consumption time, reduce the grid load, and lower the contract capacity, thereby achieving energy arbitrage.

