

# E-House

Compact, Modular, Customised,  
Plug and play power supply solutions



# Introduction

**Rhine Energy LLP** offers complete one stop solution to execute the project of **E-House** from concept to commissioning. The electrical house (E-House) is latest market trend in electrical power distribution. E-House is ready to use solution and consist of one or several modules equipped with high-quality components, including medium voltage air insulated switchgear (AIS) or gas-insulated switchgear (GIS), low voltage switchboards, power transformers, protection, monitoring and control systems, Power management systems (PMS) and building management systems.

E-Houses are suitable for almost all segments like Building, Industry, Utilities and Infrastructures. They are ideally suited for the broad range of applications as space and time saving solutions, in areas with difficult access, in harsh environments, as a temporary power distribution solution, or as a mobile power solution for relocation.



## Benefits of E-House

### A cost – efficient solution.

As a pre-fabricated electrical building, the E-House is delivered fully integrated and pre tested, this reduces on site construction work and installation time is significantly reduced. This adds to total savings of up to 20% in capital expenditure (CAPEX) E-House also enable potential operating expenditure (OPEX) reduction because of optimized building volume and system design.

### A time – efficient solution.

E-House power supply solutions are fast and easy to install as compared to conventional site-built construction. E-House reduces overall lead time by upto 50%.

### Improved safety

- Internal arc protection and thermal insulation.
- Equipment protection in harsh environment.
- Compliance with local standards.

### Space saving

E-House design is compact and it takes minimum space and because of this foot print optimization up to 25% can be achieved.

### One-stop solution

Everything from one partner, from planning to the installation and commissioning.

# From Planning to Plug and play Installation.

Rhine Energy has all necessary in-house expertise and design know – how to execute complete turn-key solution for E-House. There are seven stages involved in execution of E-House Projects.

## Design

Everything starts with design. Based on customer requirements, site conditions (e.g. logistical and site restrictions), health and safety requirements each E-House is designed accommodating all requirements.

- Overall electrical design
- Equipment layout
- Mechanical design
- Design of auxiliary equipment and systems (e.g. fire detection, air-conditioning, etc.)



## Manufacturing

Following the detailed planning of E-House, high-quality products and materials are procured and the E-House is constructed to suit your specific requirements.

- Procurement of high-quality materials
- Manufacturing
- Skilled labor



## Pre-assembly

All elements of the E-House's metal housing, including the steelframe, floor, roof and wall panels are preassembled in a controlled factory environment.

- Construction and coating of steelframe
- Installation of roof, wall and floor elements
- Mechanical installation of equipment



## Electrical Installation

Whatever the individual power component arrangement of your E-House – our engineering team ensures optimal integration.

- Power equipment
- Auxiliary equipment and systems
- Connection of internal cables



## Pre-commissioning and Testing

The high level of quality and functionality of the E-House power equipment and auxiliary systems are assured by fulfilling an extensive inspection and test plan prior to shipping to the project site.

- Pre-testing of all installations
- Pre-commissioning of equipment
- Testing of functionalities



## Transport

From planning and calculating load capacities to choosing modes of transport and more – we handle all of the logistics.

- Expertise in heavy and oversized transport
- Safe, fast and efficient transportation
- Logistics management



## Plug-and-play

After arrival on site, E-House solutions are lifted directly onto their foundations and subsequently installed – the plug-and-play concept minimizes costs, time, and efforts.

- Lifting and mechanical installation of E-House
- Electrical installation of external cables
- Commissioning
- Energization



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