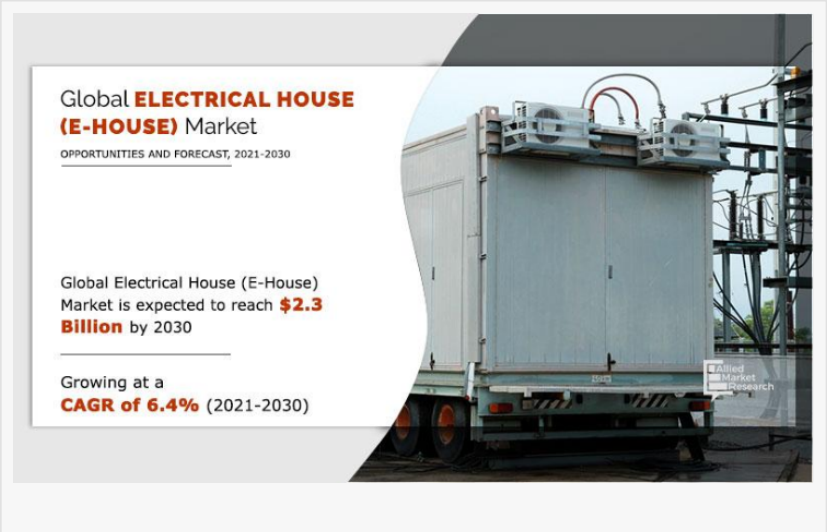
Electrical House (E-House) Market to Reach $2.3 Billion by 2030, Driven by Industrial Growth & Mobile Substation Demand

Rising Demand for Modular Power Solutions Propels Electrical House (E-House) Market Toward $2.3 Billion by 2030



WILMINGTON, DE, UNITED STATES, July 23, 2025 /EINPresswire.com/ -- The Future of Modular Power: Electrical House (E-House) Industry Set for Strong Growth

According to a recent report by Allied Market Research, the global electrical house (E-House) market size was valued at $1.2 billion in 2020 and is projected to reach $2.3 billion by 2030, growing at a CAGR of 6.4% during the forecast period. This surge is being driven by rising industrial activity, demand for flexible power solutions, and the growing adoption of renewable energy.

> Global Electrical House Market to hit $2.3B by 2030 □□, fueled by mobile substations & industrial demand. CAGR of 6.4% from 2021–2030!"
>
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An Electrical House (E-House)—also known as a modular substation—is a compact, factory-built power distribution unit. It houses key components like low- and medium-voltage switchgear, digital control systems, and other auxiliary systems in a mobile or fixed container. Designed for quick deployment and ease of transport, e-houses are increasingly used across sectors such as oil & gas, mining, chemical, railways, and utilities.

Key Drivers Behind Market Growth

The primary force behind the rising popularity of electrical houses is the growing demand for flexible and space-efficient power supply solutions. E-houses offer several benefits over traditional brick-and-mortar substations:

Faster deployment and reduced construction time

Cost-effective and scalable solutions

Easier maintenance and relocation

Reduced land use in dense or remote areas

These advantages make them ideal for both temporary and permanent power infrastructure projects, especially in emerging industrial zones.

Moreover, the shift toward renewable energy and decentralized power systems is boosting the demand for modular substations. E-houses are now being deployed in off-grid solar and wind energy setups to improve power distribution efficiency and minimize outages.

Market Segmentation: Insights by Type, Application, and Voltage

 By Type: Mobile Substations Lead the Way

The market is segmented into fixed and mobile substations. In 2020, mobile substations accounted for 60.6% of the global revenue share. This dominance is due to their widespread application in industries that require temporary or emergency power, such as oil & gas exploration and construction projects.

Mobile e-houses are increasingly being deployed to provide fast, reliable power in disaster-hit areas, rail infrastructure expansions, and defense applications. Their portability and rapid setup make them indispensable in time-sensitive environments.

 By Application: Industrial Sector Dominates

The industrial segment held a commanding 53.4% share in 2020. With the global rise in manufacturing and chemical processing, there’s an increased need for reliable, high-capacity power systems. E-houses ensure continuous energy supply in large plants, refineries, and factories where downtime can result in significant losses.

The utility sector, though slightly smaller, is projected to grow due to aging grid infrastructure in developed nations and the rapid electrification of rural areas in emerging economies.

 By Voltage: Medium-Voltage Systems Take the Lead

By voltage, the market is divided into low and medium segments. Medium-voltage e-houses captured 66.7% of the revenue in 2020. This is attributed to their use in infrastructure-intensive sectors like transportation and public utilities, especially in countries like India and China, which are actively expanding their railway and energy grids.

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Regional Outlook: Asia-Pacific Emerging as a Powerhouse

The Asia-Pacific region held the largest market share of 35.5% in 2020 and is expected to grow at the highest CAGR of 7.1% through 2030. Rapid industrialization, urbanization, and government investment in grid modernization are major drivers. Additionally, countries like China and India are promoting renewable energy integration, further accelerating demand for modular power solutions.

Meanwhile, North America and Europe are witnessing steady adoption of e-houses in smart grid projects, EV infrastructure, and offshore oil & gas facilities.

Challenges and Opportunities

Despite the promising outlook, certain challenges persist. High maintenance costs and the need for skilled personnel to operate and troubleshoot E-House systems could hamper adoption, particularly in cost-sensitive markets.

However, these concerns are outweighed by growing opportunities:

Integration of IoT and digital monitoring systems for real-time diagnostics

Deployment in renewable grids to support clean energy transitions

Increased government funding for disaster recovery infrastructure

The demand for temporary and mobile power solutions in emergency and remote applications is expected to further fuel innovation and investment in the electrical house sector.

COVID-19 Impact: Temporary Setback, Long-Term Growth

The COVID-19 pandemic caused temporary disruptions across global supply chains and industrial operations. Projects were delayed or canceled, and sectors like oil & gas and construction saw a decline in activity. This impacted the e-house market, as many end-users postponed or reduced capital expenditure.

However, the post-pandemic recovery, driven by infrastructure stimulus packages, green energy investments, and manufacturing resurgence, is expected to re-energize the market.

Competitive Landscape

Major players in the electrical house (e-house) market include:

ABB

Siemens AG

Schneider Electric

General Electric

Eaton

TECO Corporation

BMarko Structures Inc.

Axis Solutions Pvt Ltd

Kasa Analgen

Panel Built Incorporated

These companies are focusing on modular innovation, smart grid integration, and strategic partnerships to enhance their market presence.

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Conclusion

The Electrical House (E-House) Market is entering a high-growth phase, supported by rapid industrialization, demand for decentralized power, and renewable energy integration. With an expected valuation of $2.3 billion by 2030, e-houses are set to play a pivotal role in modernizing power infrastructure across the globe.

□□ As industries and governments push for smarter, more efficient energy systems, E-House solutions are proving to be the reliable backbone of the future power grid.

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Pawan Kumar, the CEO of Allied Market Research, is leading the organization toward providing high-quality data and insights. We are in professional corporate relations with various companies and this helps us in digging out market data that helps us generate accurate research data tables and confirms utmost accuracy in our market forecasting. Each and every data presented in the reports published by us is extracted through primary interviews with top officials from leading companies of domain concerned. Our secondary data procurement methodology includes deep online and offline research and discussion with knowledgeable professionals and analysts in the industry.

David Correa
Allied Market Research
+ 1 800-792-5285
email us here
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YouTube
X