

# **Residential Backup Power Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented, By Type (Diesel Generators, Gas Generators, Solar Generators, Others), By Application (Standby Power, Prime Power, Peak Shaving), By Region, By Competition, 2020-2030F**

<https://marketpublishers.com/r/R748316054EFEN.html>

Date: May 2025

Pages: 180

Price: US\$ 4,500.00 (Single User License)

ID: R748316054EFEN

## **Abstracts**

### **Market Overview**

The Global Residential Backup Power Market was valued at USD 12.35 Billion in 2024 and is projected to reach USD 17.57 Billion by 2030, expanding at a CAGR of 5.89%. This market comprises a variety of solutions designed to ensure uninterrupted electricity supply in residential settings during grid failures, outages, or areas with unreliable power infrastructure. It includes technologies such as diesel and gas generators, solar generators, battery storage systems, and hybrid configurations that integrate renewable energy sources. Increasing incidences of grid instability and climate-related power disruptions have heightened consumer demand for resilient energy systems, transforming backup power solutions into essential household utilities. The expansion of remote work and home-based digital lifestyles further amplifies the need for consistent power supply, encouraging greater investment in home backup energy infrastructure. With favorable government policies and incentives supporting renewable integration, residential consumers are increasingly opting for eco-friendly, smart, and efficient backup systems.

### **Key Market Drivers**

Increasing Frequency of Power Outages and Grid Instability

The rising frequency and severity of power outages driven by aging grid infrastructure, increased electricity demand, and extreme weather events have become a major driver for residential backup power adoption. Regions with frequent blackouts, such as parts of North America and Asia-Pacific, are witnessing growing interest in backup systems as essential household equipment. Events like wildfires, snowstorms, and heatwaves have stressed existing energy infrastructure, resulting in blackouts that disrupt daily life and critical activities like work, education, and healthcare. Additionally, the post-pandemic shift to remote work has made uninterrupted power supply a necessity. Governments and utilities are encouraging energy independence with incentives for home backup systems, particularly solar-plus-storage, further accelerating market growth. As grid reliability continues to decline and consumer awareness grows, backup power systems are increasingly seen as critical home resilience tools rather than optional investments.

## **Key Market Challenges**

### High Initial Capital Costs and Affordability Constraints

Despite growing demand, the high upfront cost of residential backup power systems remains a significant barrier to broader adoption. Premium systems, particularly solar-plus-storage and advanced battery units, can cost over USD 10,000, making them inaccessible for many middle-income households. In contrast, more affordable options like portable gas generators offer limited performance and sustainability benefits. Installation costs, permitting fees, and the complexity of integrating backup systems with home infrastructure also contribute to financial and logistical hurdles. These challenges are even more pronounced in emerging markets, where income levels and credit access limit consumer capacity to invest in high-cost energy resilience solutions. While financing programs and incentives are available in some regions, broader affordability solutions are necessary to unlock mass-market potential.

## **Key Market Trends**

### Integration of Renewable Energy Sources with Battery Storage

A leading trend in the residential backup power market is the growing convergence of solar photovoltaic (PV) systems with battery storage. This integration allows households to store solar energy for use during outages, reducing dependence on the grid and supporting sustainability goals. Technological innovations in lithium-ion batteries and energy management software have enhanced the efficiency and affordability of these

systems. Companies such as Tesla and Sonnen are offering compact, user-friendly solutions that provide seamless transition during grid failures. Additionally, smart energy platforms are enabling households to optimize energy use and participate in virtual power plant (VPP) programs. As policy support for decentralized energy continues, solar-plus-storage solutions are expected to dominate residential backup system installations, particularly in regions with high solar potential and frequent power disruptions.

## **Key Market Players**

ABB Ltd

Caterpillar Inc.

Cummins Inc.

Exide Industries Ltd

KOHLER Co.

Panasonic Corporation

American Honda Motor Co., Inc.

Schneider Electric SE

Eaton Corporation Plc

Atlas Copco Group

## **Report Scope:**

In this report, the Global Residential Backup Power Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

### Residential Backup Power Market, By Type:

Diesel Generators

Gas Generators

Solar Generators

Others

### Residential Backup Power Market, By Application:

Standby Power

Prime Power

Peak Shaving

### Residential Backup Power Market, By Region:

#### North America

United States

Canada

Mexico

#### Europe

France

United Kingdom

Italy

Germany

Spain

Asia-Pacific

China

India

Japan

Australia

South Korea

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Kuwait

Turkey

### **Competitive Landscape**

Company Profiles: Detailed analysis of the major companies present in the Global Residential Backup Power Market.

### **Available Customizations:**

Global Residential Backup Power Market report with the given Market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

### **Company Information**

Detailed analysis and profiling of additional Market players (up to five).

## Contents

### **1. PRODUCT OVERVIEW**

- 1.1. Market Definition
- 1.2. Scope of the Market
  - 1.2.1. Markets Covered
  - 1.2.2. Years Considered for Study
- 1.3. Key Market Segmentations

### **2. RESEARCH METHODOLOGY**

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Formulation of the Scope
- 2.4. Assumptions and Limitations
- 2.5. Sources of Research
  - 2.5.1. Secondary Research
  - 2.5.2. Primary Research
- 2.6. Approach for the Market Study
  - 2.6.1. The Bottom-Up Approach
  - 2.6.2. The Top-Down Approach
- 2.7. Methodology Followed for Calculation of Market Size & Market Shares
- 2.8. Forecasting Methodology
  - 2.8.1. Data Triangulation & Validation

### **3. EXECUTIVE SUMMARY**

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, and Trends

### **4. VOICE OF CUSTOMER**

### **5. GLOBAL RESIDENTIAL BACKUP POWER MARKET OUTLOOK**

- 5.1. Market Size & Forecast

- 5.1.1. By Value
- 5.2. Market Share & Forecast
  - 5.2.1. By Type (Diesel Generators, Gas Generators, Solar Generators, Others)
  - 5.2.2. By Application (Standby Power, Prime Power, Peak Shaving)
  - 5.2.3. By Region
- 5.3. By Company (2024)
- 5.4. Market Map

## **6. NORTH AMERICA RESIDENTIAL BACKUP POWER MARKET OUTLOOK**

- 6.1. Market Size & Forecast
  - 6.1.1. By Value
- 6.2. Market Share & Forecast
  - 6.2.1. By Type
  - 6.2.2. By Application
  - 6.2.3. By Country
- 6.3. North America: Country Analysis
  - 6.3.1. United States Residential Backup Power Market Outlook
    - 6.3.1.1. Market Size & Forecast
      - 6.3.1.1.1. By Value
    - 6.3.1.2. Market Share & Forecast
      - 6.3.1.2.1. By Type
      - 6.3.1.2.2. By Application
  - 6.3.2. Canada Residential Backup Power Market Outlook
    - 6.3.2.1. Market Size & Forecast
      - 6.3.2.1.1. By Value
    - 6.3.2.2. Market Share & Forecast
      - 6.3.2.2.1. By Type
      - 6.3.2.2.2. By Application
  - 6.3.3. Mexico Residential Backup Power Market Outlook
    - 6.3.3.1. Market Size & Forecast
      - 6.3.3.1.1. By Value
    - 6.3.3.2. Market Share & Forecast
      - 6.3.3.2.1. By Type
      - 6.3.3.2.2. By Application

## **7. EUROPE RESIDENTIAL BACKUP POWER MARKET OUTLOOK**

- 7.1. Market Size & Forecast

- 7.1.1. By Value
- 7.2. Market Share & Forecast
  - 7.2.1. By Type
  - 7.2.2. By Application
  - 7.2.3. By Country
- 7.3. Europe: Country Analysis
  - 7.3.1. Germany Residential Backup Power Market Outlook
    - 7.3.1.1. Market Size & Forecast
      - 7.3.1.1.1. By Value
    - 7.3.1.2. Market Share & Forecast
      - 7.3.1.2.1. By Type
      - 7.3.1.2.2. By Application
  - 7.3.2. United Kingdom Residential Backup Power Market Outlook
    - 7.3.2.1. Market Size & Forecast
      - 7.3.2.1.1. By Value
    - 7.3.2.2. Market Share & Forecast
      - 7.3.2.2.1. By Type
      - 7.3.2.2.2. By Application
  - 7.3.3. Italy Residential Backup Power Market Outlook
    - 7.3.3.1. Market Size & Forecast
      - 7.3.3.1.1. By Value
    - 7.3.3.2. Market Share & Forecast
      - 7.3.3.2.1. By Type
      - 7.3.3.2.2. By Application
  - 7.3.4. France Residential Backup Power Market Outlook
    - 7.3.4.1. Market Size & Forecast
      - 7.3.4.1.1. By Value
    - 7.3.4.2. Market Share & Forecast
      - 7.3.4.2.1. By Type
      - 7.3.4.2.2. By Application
  - 7.3.5. Spain Residential Backup Power Market Outlook
    - 7.3.5.1. Market Size & Forecast
      - 7.3.5.1.1. By Value
    - 7.3.5.2. Market Share & Forecast
      - 7.3.5.2.1. By Type
      - 7.3.5.2.2. By Application

## **8. ASIA-PACIFIC RESIDENTIAL BACKUP POWER MARKET OUTLOOK**

- 8.1. Market Size & Forecast
  - 8.1.1. By Value
- 8.2. Market Share & Forecast
  - 8.2.1. By Type
  - 8.2.2. By Application
  - 8.2.3. By Country
- 8.3. Asia-Pacific: Country Analysis
  - 8.3.1. China Residential Backup Power Market Outlook
    - 8.3.1.1. Market Size & Forecast
      - 8.3.1.1.1. By Value
    - 8.3.1.2. Market Share & Forecast
      - 8.3.1.2.1. By Type
      - 8.3.1.2.2. By Application
  - 8.3.2. India Residential Backup Power Market Outlook
    - 8.3.2.1. Market Size & Forecast
      - 8.3.2.1.1. By Value
    - 8.3.2.2. Market Share & Forecast
      - 8.3.2.2.1. By Type
      - 8.3.2.2.2. By Application
  - 8.3.3. Japan Residential Backup Power Market Outlook
    - 8.3.3.1. Market Size & Forecast
      - 8.3.3.1.1. By Value
    - 8.3.3.2. Market Share & Forecast
      - 8.3.3.2.1. By Type
      - 8.3.3.2.2. By Application
  - 8.3.4. South Korea Residential Backup Power Market Outlook
    - 8.3.4.1. Market Size & Forecast
      - 8.3.4.1.1. By Value
    - 8.3.4.2. Market Share & Forecast
      - 8.3.4.2.1. By Type
      - 8.3.4.2.2. By Application
  - 8.3.5. Australia Residential Backup Power Market Outlook
    - 8.3.5.1. Market Size & Forecast
      - 8.3.5.1.1. By Value
    - 8.3.5.2. Market Share & Forecast
      - 8.3.5.2.1. By Type
      - 8.3.5.2.2. By Application

## **9. SOUTH AMERICA RESIDENTIAL BACKUP POWER MARKET OUTLOOK**

## 9.1. Market Size & Forecast

### 9.1.1. By Value

## 9.2. Market Share & Forecast

### 9.2.1. By Type

### 9.2.2. By Application

### 9.2.3. By Country

## 9.3. South America: Country Analysis

### 9.3.1. Brazil Residential Backup Power Market Outlook

#### 9.3.1.1. Market Size & Forecast

##### 9.3.1.1.1. By Value

#### 9.3.1.2. Market Share & Forecast

##### 9.3.1.2.1. By Type

##### 9.3.1.2.2. By Application

### 9.3.2. Argentina Residential Backup Power Market Outlook

#### 9.3.2.1. Market Size & Forecast

##### 9.3.2.1.1. By Value

#### 9.3.2.2. Market Share & Forecast

##### 9.3.2.2.1. By Type

##### 9.3.2.2.2. By Application

### 9.3.3. Colombia Residential Backup Power Market Outlook

#### 9.3.3.1. Market Size & Forecast

##### 9.3.3.1.1. By Value

#### 9.3.3.2. Market Share & Forecast

##### 9.3.3.2.1. By Type

##### 9.3.3.2.2. By Application

## **10. MIDDLE EAST AND AFRICA RESIDENTIAL BACKUP POWER MARKET OUTLOOK**

### 10.1. Market Size & Forecast

#### 10.1.1. By Value

### 10.2. Market Share & Forecast

#### 10.2.1. By Type

#### 10.2.2. By Application

#### 10.2.3. By Country

### 10.3. Middle East and Africa: Country Analysis

#### 10.3.1. South Africa Residential Backup Power Market Outlook

##### 10.3.1.1. Market Size & Forecast

- 10.3.1.1.1. By Value
- 10.3.1.2. Market Share & Forecast
  - 10.3.1.2.1. By Type
  - 10.3.1.2.2. By Application
- 10.3.2. Saudi Arabia Residential Backup Power Market Outlook
  - 10.3.2.1. Market Size & Forecast
    - 10.3.2.1.1. By Value
  - 10.3.2.2. Market Share & Forecast
    - 10.3.2.2.1. By Type
    - 10.3.2.2.2. By Application
- 10.3.3. UAE Residential Backup Power Market Outlook
  - 10.3.3.1. Market Size & Forecast
    - 10.3.3.1.1. By Value
  - 10.3.3.2. Market Share & Forecast
    - 10.3.3.2.1. By Type
    - 10.3.3.2.2. By Application
- 10.3.4. Kuwait Residential Backup Power Market Outlook
  - 10.3.4.1. Market Size & Forecast
    - 10.3.4.1.1. By Value
  - 10.3.4.2. Market Share & Forecast
    - 10.3.4.2.1. By Type
    - 10.3.4.2.2. By Application
- 10.3.5. Turkey Residential Backup Power Market Outlook
  - 10.3.5.1. Market Size & Forecast
    - 10.3.5.1.1. By Value
  - 10.3.5.2. Market Share & Forecast
    - 10.3.5.2.1. By Type
    - 10.3.5.2.2. By Application

## **11. MARKET DYNAMICS**

- 11.1. Drivers
- 11.2. Challenges

## **12. MARKET TRENDS & DEVELOPMENTS**

- 12.1. Merger & Acquisition (If Any)
- 12.2. Product Launches (If Any)
- 12.3. Recent Developments

## **13. COMPANY PROFILES**

### 13.1. ABB Ltd

13.1.1. Business Overview

13.1.2. Key Revenue and Financials

13.1.3. Recent Developments

13.1.4. Key Personnel/Key Contact Person

13.1.5. Key Product/Services Offered

### 13.2. Caterpillar Inc.

### 13.3. Cummins Inc.,

### 13.4. Exide Industries Ltd

### 13.5. KOHLER Co.

### 13.6. Panasonic Corporation

### 13.7. American Honda Motor Co., Inc.

### 13.8. Schneider Electric SE

### 13.9. Eaton Corporation Plc

### 13.10. Atlas Copco Group

## **14. STRATEGIC RECOMMENDATIONS**

## **15. ABOUT US & DISCLAIMER**

## I would like to order

Product name: Residential Backup Power Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented, By Type (Diesel Generators, Gas Generators, Solar Generators, Others), By Application (Standby Power, Prime Power, Peak Shaving), By Region, By Competition, 2020-2030F

Product link: <https://marketpublishers.com/r/R748316054EFEN.html>

Price: US\$ 4,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/R748316054EFEN.html>