

India Microgrid Market Size, Share & Trends Analysis Report By Power Source (CHP, Natural Gas, Solar PV, Diesel, Fuel Cell) By Connection Type (Remote, Grid Connected, Hybrid), By End-use, And Segment Forecasts, 2024 - 2030

<https://marketpublishers.com/r/I6054CD122CAEN.html>

Date: May 2024

Pages: 70

Price: US\$ 3,950.00 (Single User License)

ID: I6054CD122CAEN

Abstracts

This report can be delivered to the clients within 3 Business Days

India Microgrid Market Growth & Trends

The India microgrid market size is anticipated to reach USD 8.01 billion by 2030 and is anticipated to grow at a CAGR of 19.4% from 2024 to 2030, according to a new report by Grand View Research, Inc. One of the key factors propelling the market expansion includes the increasing demand for reliable and uninterrupted power supply, especially in remote and rural areas where grid connectivity is limited or unreliable. Furthermore, government initiatives and policies promoting renewable energy sources and enhancing energy security significantly drive market growth. For instance, The Ministry of New and Renewable Energy in India aims to achieve 500 GW of installed electricity capacity from non-fossil sources by 2030, highlighting the significance of integrating and managing renewable energy through microgrids.

This ambitious goal underscores India's commitment to transitioning towards cleaner energy sources and reducing dependence on fossil fuels. India's focus on renewable energy development, including microgrids, aligns with global trends towards sustainable energy practices and underscores the country's efforts to address energy challenges while promoting environmental sustainability. In addition, the Indian government has introduced policies supporting clean energy and grid modernization, particularly in rural areas, to boost the adoption of microgrid solutions. These policies create a favorable

environment for deploying microgrids in the energy infrastructure. Moreover, technological advancements in smart grid technologies, IoT integration, and digitalization are accelerating the adoption of microgrids in India. These innovations enable efficient monitoring, control, and optimization of microgrid operations, improving performance and cost-effectiveness.

Integrating advanced communication and control systems enhances grid resilience and flexibility, making microgrids an attractive option for utilities and end-users. Furthermore, increasing focus on energy independence and resilience against grid disruptions drives the interest in microgrid solutions among commercial and industrial sectors in India. Businesses recognize the benefits of having a reliable backup power source to ensure uninterrupted operations during grid outages or emergencies. Microgrids offer a viable alternative to traditional backup generators by providing cleaner energy options and enabling better management of energy resources. These driving factors collectively contribute to market expansion, offering sustainable energy solutions that cater to diverse energy needs across the country.

India Microgrid Market Report Highlights

The CHP segment dominated the market and accounted for a share of over 43% in 2023 owing to the shift from conventional Separate Heat and Power (SHP) setups to utilizing a single fuel source for energy generation, underscoring the efficiency and cost-effectiveness of CHP systems in powering microgrids

Based on the connection type, the grid-connected segment led the market with a share of around 65% in 2023 as they utilize multiple generators, distribution networks, and advanced controls, enhancing grid resiliency, electricity quality, and reducing carbon footprint. These systems provide various benefits, leading to increased demand and market dominance

The education end-use segment dominated the market in 2023 owing to the increased government spending on education infrastructure and extensive power supply requirements in this sector

In December 2021, NTPC Ltd., India's largest power-generating company, announced its first green hydrogen microgrid project for its Simhadri plant in Andhra Pradesh, India. This project is a significant step towards India's commitment to achieving its climate goals and underscores NTPC's dedication

to sustainable energy solutions

Contents

CHAPTER 1. METHODOLOGY AND SCOPE

- 1.1. Market Segmentation & Scope
- 1.2. Segment Definitions
 - 1.2.1. Power Source
 - 1.2.2. Connection Type
 - 1.2.3. End-use
 - 1.2.4. Estimates and forecasts timeline
- 1.3. Research Methodology
- 1.4. Information Procurement
 - 1.4.1. Purchased database
 - 1.4.2. GVR's internal database
 - 1.4.3. Secondary sources
 - 1.4.4. Primary research
- 1.5. Information or Data Analysis
 - 1.5.1. Data analysis models
- 1.6. Market Formulation & Validation
- 1.7. Model Details
 - 1.7.1. Commodity flow analysis (Model 1)
 - 1.7.2. Volume price analysis (Model 2)
- 1.8. List of Secondary Sources
- 1.9. List of Primary Sources
- 1.10. Objectives

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. Market Outlook
- 2.2. Segment Outlook
 - 2.2.1. Power Source outlook
 - 2.2.2. Connection Type outlook
 - 2.2.3. End-use outlook
- 2.3. Competitive Insights

CHAPTER 3. INDIA MICROGRID MARKET VARIABLES, TRENDS & SCOPE

- 3.1. Market Lineage Outlook
 - 3.1.1. Parent market outlook

- 3.1.2. Related/ancillary market outlook
- 3.2. Market Dynamics
 - 3.2.1. Market driver analysis
 - 3.2.2. Market restraint analysis
- 3.3. India Microgrid Market Analysis Tools
 - 3.3.1. Industry Analysis - Porter's
 - 3.3.1.1. Supplier power
 - 3.3.1.2. Buyer power
 - 3.3.1.3. Substitution threat
 - 3.3.1.4. Threat of new entrant
 - 3.3.1.5. Competitive rivalry
 - 3.3.2. PESTEL Analysis
 - 3.3.2.1. Political landscape
 - 3.3.2.2. Technological landscape
 - 3.3.2.3. Economic landscape
 - 3.3.2.4. Social landscape
 - 3.3.2.5. Legal landscape
 - 3.3.2.6. Environmental landscape

CHAPTER 4. INDIA MICROGRID MARKET: POWER SOURCE ESTIMATES & TREND ANALYSIS

- 4.1. Power Source Market Share, 2023 & 2030
- 4.2. Segment Dashboard
- 4.3. India Microgrid Market by Power Source Outlook
- 4.4. Market Size & Forecasts and Trend Analyses, 2018 to 2030 for the Following
 - 4.4.1. CHP
 - 4.4.1.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 4.4.2. Natural Gas
 - 4.4.2.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 4.4.3. Solar PV
 - 4.4.3.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 4.4.4. Diesel
 - 4.4.4.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 4.4.5. Fuel Cell
 - 4.4.5.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 4.4.6. Others
 - 4.4.6.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)

CHAPTER 5. INDIA MICROGRID MARKET: CONNECTION TYPE ESTIMATES & TREND ANALYSIS

- 5.1. Connection Type Market Share, 2023 & 2030
- 5.2. Segment Dashboard
- 5.3. India Microgrid Market by Connection Type Outlook
- 5.4. Market Size & Forecasts and Trend Analyses, 2018 to 2030 for the Following
 - 5.4.1. Remote
 - 5.4.1.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 5.4.2. Grid Connected
 - 5.4.2.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 5.4.3. Hybrid
 - 5.4.3.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)

CHAPTER 6. INDIA MICROGRID MARKET: END-USE ESTIMATES & TREND ANALYSIS

- 6.1. End-use Market Share, 2023 & 2030
- 6.2. Segment Dashboard
- 6.3. India Microgrid Market by End-use Outlook
- 6.4. Market Size & Forecasts and Trend Analyses, 2018 to 2030 for the Following
 - 6.4.1. Government
 - 6.4.1.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 6.4.2. Education
 - 6.4.2.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 6.4.3. Commercial
 - 6.4.3.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 6.4.4. Utility
 - 6.4.4.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 6.4.5. Defense
 - 6.4.5.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)
 - 6.4.6. Others
 - 6.4.6.1. Market estimates and forecasts 2018 to 2030 (USD Million) (MW)

CHAPTER 7. COMPETITIVE LANDSCAPE

- 7.1. Recent Developments & Impact Analysis, By Key Market Participants
- 7.2. Company/Competition Categorization
- 7.3. Vendor Landscape

- 7.3.1. List of key distributors and channel partners
- 7.3.2. Key customers
- 7.3.3. Key company heat map analysis, 2023
- 7.4. Company Profiles
 - 7.4.1. Eaton Corporation Plc
 - 7.4.1.1. Company overview
 - 7.4.1.2. Financial performance
 - 7.4.1.3. Power Source benchmarking
 - 7.4.1.4. Strategic initiatives
 - 7.4.2. Exelon Corporation
 - 7.4.2.1. Company overview
 - 7.4.2.2. Financial performance
 - 7.4.2.3. Power Source benchmarking
 - 7.4.2.4. Strategic initiatives
 - 7.4.3. General Electric Company
 - 7.4.3.1. Company overview
 - 7.4.3.2. Financial performance
 - 7.4.3.3. Power Source benchmarking
 - 7.4.3.4. Strategic initiatives
 - 7.4.4. Gram Power India Pvt Ltd
 - 7.4.4.1. Company overview
 - 7.4.4.2. Financial performance
 - 7.4.4.3. Power Source benchmarking
 - 7.4.4.4. Strategic initiatives
 - 7.4.5. Greenpeace Foundation,
 - 7.4.5.1. Company overview
 - 7.4.5.2. Financial performance
 - 7.4.5.3. Power Source benchmarking
 - 7.4.5.4. Strategic initiatives
 - 7.4.6. Hitachi Ltd
 - 7.4.6.1. Company overview
 - 7.4.6.2. Financial performance
 - 7.4.6.3. Power Source benchmarking
 - 7.4.6.4. Strategic initiatives
 - 7.4.7. Regain Paradise
 - 7.4.7.1. Company overview
 - 7.4.7.2. Financial performance
 - 7.4.7.3. Power Source benchmarking
 - 7.4.7.4. Strategic initiatives

7.4.8. Schneider Electric SE

- 7.4.8.1. Company overview
- 7.4.8.2. Financial performance
- 7.4.8.3. Power Source benchmarking
- 7.4.8.4. Strategic initiatives

7.4.9. Siemens India Private Limited

- 7.4.9.1. Company overview
- 7.4.9.2. Financial performance
- 7.4.9.3. Power Source benchmarking
- 7.4.9.4. Strategic initiatives

7.4.10. Toshiba India Pvt Ltd

- 7.4.10.1. Company overview
- 7.4.10.2. Financial performance
- 7.4.10.3. Power Source benchmarking
- 7.4.10.4. Strategic initiatives

List Of Tables

LIST OF TABLES

Table 1 List of Abbreviations

Table 2 India Microgrid Market, By Power Source, 2018 - 2030 (USD Million) (MW)

Table 3 India Microgrid Market, By Connection Type, 2018 - 2030 (USD Million) (MW)

Table 4 India Microgrid Market, By End-use, 2018 - 2030 (USD Million) (MW)

List Of Figures

LIST OF FIGURES

Fig. 1 Market Research Process

Fig. 2 Data Triangulation Techniques

Fig. 3 Primary Research Pattern

Fig. 4 Market Research Approaches

Fig. 5 Value-Chain-Based Sizing & Forecasting

Fig. 6 QFD Modeling for Market Share Assessment

Fig. 7 Market Formulation & Validation

Fig. 8 India Microgrid Market Outlook

Fig. 9 India Microgrid Competitive Insights

Fig. 10 Parent Market Outlook

Fig. 11 Related/Ancillary Market Outlook

Fig. 12 Penetration and Growth Prospect Mapping

Fig. 13 India Microgrid Market Driver Impact

Fig. 14 India Microgrid Market Restraint Impact

Fig. 15 India Microgrid Market: Power Source Movement Analysis

Fig. 16 India Microgrid Market: Power Source 2018 - 2030 (USD Million) (MW): Key Takeaways

Fig. 17 CHP Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 18 Natural Gas Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 19 Solar PV Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 20 Diesel Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 21 Fuel Cell PV Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 22 Others Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 23 India Microgrid Market: Connection Type Movement Analysis

Fig. 24 India Microgrid Market: Connection Type, 2018 - 2030 (USD Million) (MW): Key Takeaways

Fig. 25 Remote Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 26 Grid Connected Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 27 Hybrid Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 28 India Microgrid Market: End-use Movement Analysis (USD Million) (MW)

Fig. 29 India Microgrid Market: End-use, 2018 - 2030 (USD Million) (MW): Key Takeaways

Fig. 30 Government Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 31 Education Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 32 Commercial Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 33 Utility Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 34 Defense Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

Fig. 35 Others Market Estimates and Forecasts, 2018 - 2030 (USD Million) (MW)

I would like to order

Product name: India Microgrid Market Size, Share & Trends Analysis Report By Power Source (CHP, Natural Gas, Solar PV, Diesel, Fuel Cell) By Connection Type (Remote, Grid Connected, Hybrid), By End-use, And Segment Forecasts, 2024 - 2030

Product link: <https://marketpublishers.com/r/l6054CD122CAEN.html>

Price: US\$ 3,950.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/l6054CD122CAEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970