

Now Available

Captive Power in India 2021

Market Trends, Economics, Outlook & Projections

A comprehensive analysis of over 2,900 captive power plants

- ❖ Research Report
- ❖ Data-set (Excel)

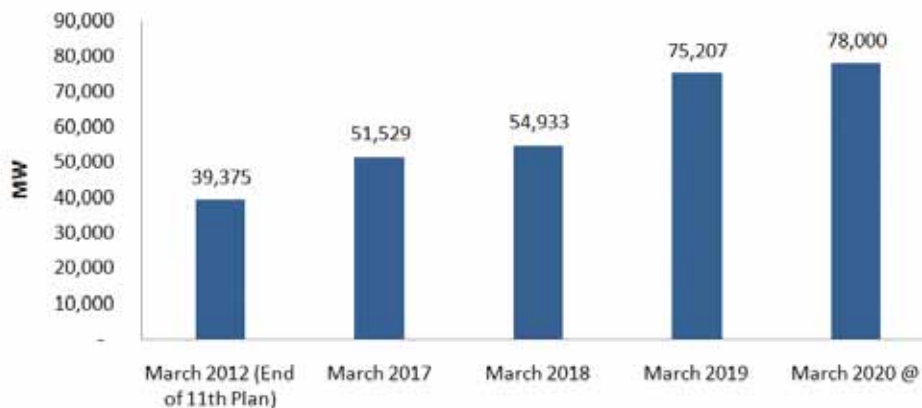
This insightful report will help you:

- ❖ Analyse the existing captive power capacity by industry, location and fuel
- ❖ Assess the key trends and new business models
- ❖ Gauge the impact of recent policy/regulatory developments
- ❖ Gain Insight into upcoming captive capacity projections and outlook
- ❖ Understand the cost economics for captive power projects for thermal and renewable CPPs
- ❖ Discuss the opportunities in short-term power market for CPPs

Report Summary and Key Insights

The captive power market in the country has grown significantly over the years driven by high tariffs charged to commercial and industrial consumers as well as erratic power supply. As per the Central Electricity Authority, the installed generating capacity of captive power plants (CPPs) stood at 78,000 MW across industries having demand of over 1 MW as of March 2020. The installed capacity generation capacity has increased at a CAGR of 8.9% between March 2012 and March 2020 while on a year-on-year basis, the installed CPP capacity is estimated to have increased by 3.7% in 2019-20.

Growth in Installed Captive Capacity

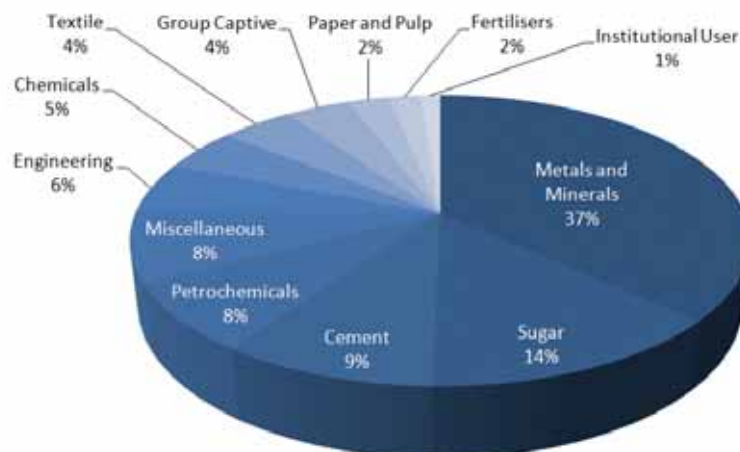


@Estimated

Source: CEA

India Infrastructure Research tracked 72.8 GW of captive capacity spread across 2,900 plants (of size 1 MW and above) to analyse various trends in the segment. It was observed that a majority capacity (around 45%) was contributed by plants of unit rating of 100 MW or above. State-wise, Odisha and Gujarat lead the states accounting for around 16% and 11% of the total share. With regards to the end-use industry, metals and minerals account for maximum share (~ 40%) of tracked captive capacity. In terms of fuel, coal-based CPPs accounted for the largest share (57%) in the total tracked capacity, followed by wind and bagasse at 8% each. Notably solar captives' share has increased in recent years from almost nil. This is mainly because several commercial and industrial users are opting for rooftop solar as well as ground-mounted plants to meet full or part energy requirements as module costs have declined and fuel costs are nil with this source of energy.

Break-up of Tracked Captive Capacity - By Industry



Source: India Infrastructure Research

However, as a result of COVID-19 pandemic and subsequent lockdown, various greenfield and/or brownfield expansion projects, including CPPs by industries have been adversely affected owing to a halt on construction, disruption in equipment/spare parts supply chain, delays in approvals and clearances, and shortage of manpower.

As per India Infrastructure Research, around 16 GW captive power capacity (including renewable) is in various stages of development across all fuel segments. Given industries' need for quality and reliable power supply, CPPs are expected to remain a viable alternative in the coming years. The group captive model is fast emerging as a preferred option for industries, especially smaller ones, to receive uninterrupted electricity supply without committing as much capex as required in standalone captive plants. Meanwhile, in the renewable energy space, the decline in capital costs of solar panels and modules is likely to drive the demand for solar-based CPPs.

1. **Executive Summary**
 - ❖ Key Projects Announced and Contracts Awarded
 - ❖ Issues and Concerns
 - ❖ The Way Forward
2. **Key Trends in Power Sector**
 - ❖ Current Captive Capacity
 - ❖ Growth in the Past Five Years
 - ❖ Recent Developments
 - ❖ Impact of Covid
 - ❖ New and Emerging Trends
 - ❖ Issues and Challenges
 - ❖ Growth Drivers
 - ❖ Outlook and Opportunities
3. **Impact of Policy and Regulatory Moves**
 - ❖ Highlights of Electricity Act (Amendment) Bill 2020
 - ❖ Draft National Tariff Policy
 - ❖ Amendments to Electricity Rules, 2005
 - ❖ Sharing of ISTS Charges and Regulations
 - ❖ Electricity (Rights of Consumers) Rules, 2020
 - ❖ MoEFCC's Notification on Coal Washing
 - ❖ Extension of date for meeting emission norms for TPPs
 - ❖ State-level Policy and Regulatory Moves
4. **Existing Captive Capacity Analysis**
 - ❖ Market Analysis
 - By Location
 - By Size
 - By Fuel
 - By Industry
 - ❖ Key Players
5. **Future Outlook and Capacity Projections**
 - ❖ Outlook for Economic and Industrial Growth
 - ❖ Upcoming Captive Capacity
 - ❖ Analysis of Upcoming Capacity (by fuel, industry, state, industry and status)
6. **Grid Power Economics**
 - ❖ Grid Power Supply Scenario
 - ❖ Grid Power Reliability
 - ❖ Tariffs Trends (LT and HT Industrial and Commercial)
 - ❖ Recent Trends and Revisions
 - ❖ Cross-subsidy charges
 - ❖ Sale by CPPs to Grid
 - ❖ Outlook for Grid Power Tariffs
7. **Charges and Levies for CPPs**
 - ❖ Trends in Cross-subsidy Surcharges and Additional Charges
 - ❖ Trends in Open Access Charges
 - ❖ Wheeling and Banking Charges
 - ❖ State-wise Orders relevant for CPPs
 - ❖ Issues and Challenges
8. **Captive from Renewable Sources**
 - ❖ Growth Drivers
 - ❖ Growth in Renewable-based CPP Capacity
 - ❖ Analysis of Renewable Power-based CPP capacity
 - ❖ Industry Experience and Uptake by C&I consumers
 - ❖ Recent Policy and Regulatory Developments
 - ❖ RPO Targets for CPPs
 - ❖ Upcoming Capacity and Projects
 - ❖ New and Emerging Technologies
 - ❖ Issues and concerns
9. **Group Captive Model**
 - ❖ Overview
 - ❖ PPA and Ownership Structures
 - ❖ Analysis of Existing Group Captive Capacity

- ❖ Draft Amendments to Electricity Rules
- ❖ Recent Projects
- ❖ Issues and Concerns
- ❖ Future Outlook

- Upcoming Gas Pipeline Infrastructure
- Gas Supply Projection

- ❖ Liquid Fuel
 - Liquid Fuel - Trends in Consumption and Production
 - Trend in Prices - Diesel
 - Trend in Prices - Crude Oil

10. Power Plant Cost Economics

- ❖ Factors impacting Captive Power Costs
- ❖ Capital Costs Comparison across Coal, Gas, Liquid Fuel and Renewables
- ❖ Variable Costs Comparison across Coal, Gas, Liquid fuels and Renewables
- ❖ Future Outlook

12. Revised Emission Norms

- ❖ Emission Norms Applicable to CPPs
- ❖ Progress and Compliance So Far
- ❖ FGD Implementation Status
- ❖ Issues and Concerns

11. Fuel Supply Scenario and Outlook

- ❖ Coal
 - Coal Demand
 - Coal Offtake
 - Coal Production
 - Coal Despatches
 - Coal Supply through E-Auctions
 - Domestic Coal Price Trends
 - Coal Imports
 - International Coal Prices
 - Measures to Reduce Coal Imports
 - Commercial Coal Mining
 - Coal Supply Projections
- ❖ Gas
 - Gas Production and Consumption
 - Gas Offtake
 - Domestic Gas Pricing
 - Existing LNG Terminals
 - LNG Imports
 - Spot LNG Prices
 - Upcoming LNG Terminals in India
 - Gas Pipeline Network

13. Opportunities in the Short-term Market

- ❖ Short-term Power Market Overview
- ❖ Pricing and Volume Trends
- ❖ Major Buyers and Sellers
- ❖ Participation by Industrial Consumers
- ❖ Real-time Market
- ❖ GTAM
- ❖ Trading of RECs
- ❖ Issues and Concerns

14. Database of Existing Plants

About 2,900 CPPs from the following industries have been covered across the fuel types (Coal, Lignite, Natural gas, Bagasse, Co-generation, Solar Ground-Mounted, Rooftop Solar, Wind, Waste-heat Recovery, Liquid fuels, Biomass, Mixed Fuels, etc). Metals and Minerals, Cement, Petrochemicals and Refineries, Chemicals, Textiles, Engineering, Pulp and Paper, Fertilisers, Sugar, Institutional Users, Group Captive, etc.

I would like to purchase the “Captive Power in India 2021” report:

Format (PDF)	Price of the report
Site Licence (Single Location)	Rs 75,000
GST @ 18%	Rs 13,500
Total	<input type="checkbox"/> Rs 88,500
<hr/>	
Enterprise Licence (Multiple Locations)	Rs 11,2500
GST @ 18%	Rs 20,250
Total	<input type="checkbox"/> Rs 132,750

I am enclosing a cheque/demand draft for Rs _____, vide cheque/demand draft no. _____ drawn on _____ dated _____ in favour of “India Infrastructure Publishing Pvt. Ltd.”

Signature

.....

Name (Block Letters) _____

Designation _____

Company _____

Company GST No. _____

Mailing Address _____

Telephone _____ Mobile _____

E-mail _____

Wire transfer details:

Beneficiary : India Infrastructure Publishing Pvt. Ltd.
Bank Name : The Hongkong and Shanghai Banking Corporation Ltd
Bank Address : R-47, Greater Kailash-1, New Delhi - 110048
Account No. : 094179587002
Swift Code : HSBCINBB
IFSC Code : HSBC0110006
GSTIN : 07AAACI5880R1ZV

Contact details:

Sumita Kanjilal

Information Products
India Infrastructure Publishing Pvt. Ltd.,
B-17, Qutab Institutional Area, New Delhi - 110 016, India
Mobile: +91-9958299609
Email: sumita.kanjilal@indiainfrastructure.com