COST OF POWER FOR DISCOMS AND INDUSTRIAL USERS
Analyses by Marketplace: PPAs/E-auction/Trading/Open Access
Analyses by Source: Coal, Hydro, Gas and Renewable

ELECTRICITY TARIFF TRENDS IN INDIA
Analyses by Consumers: HT/LT Industrial, Commercial, Residential and Agriculture
Analysis by State and Time Period

Subscribe Now
Save 20 per cent on orders and payments received before or on October 31, 2019.
Save 10 per cent on orders and payments received before or on November 21, 2019.

India Infrastructure Research
The past few years have seen significant structural disruptions in the power sector in India. The rapid scaling up of renewable energy, shifting focus from coal-based power generation and increased demand for power have all exerted pressure on the wholesale power market. According to the industry, around 85 per cent of all discom power is procured through long-term contracts, the rest through short-term bilateral contracts and power exchanges. Discoms are forced to buy expensive power owing to long-term power purchase agreements, while low-cost alternatives remain idle. The CERC pilot project on security constrained economic despatch is aimed at removing such efficiencies to reduce the cost of power to discoms. The new report launched by India Infrastructure Research will provide a complete analysis of the wholesale power procurement market. It includes detailed insight into current trends, cost of power from major sources (renewable energy, coal, natural gas, and hydropower) and resulting tariffs, procurement options for discoms and industrial users, key initiatives as well as outlook and projections. It will also highlight key trends in long-term PPAs, procurement of aggregate power through e-auctions, and trends in power trading at exchanges. In addition, the report also focuses on its evolution to provide a futuristic view of the wholesale power market in India.

**Executive summary**

1. **Power Sector Overview and Industry Structure**
   - Trends in power generation
   - Fuel-wise share in power generation
   - Energy Consumption Trends
   - Discom Consumer Mix
   - Key recent developments
   - Current Power procurement models
   - Industrial power procurement Trends
   - Existing generation scheduling procedure

2. **Long-term PPAs**
   - Tariff Trends in PPAs Before Competitive Bidding
   - Tariff Trends in Case I and Case II Bidding
   - Tariff Trends in PPAs with CPSUs

3. **Short-term/ Medium-term PPAs**
   - Trends in Short-term PPAs
   - Procurement of Aggregate Power Scheme - reverse e-bid auction for PPAs
   - Trends from DEEP Portal
   - Other Short-term PPAs

4. **Power Trading at Exchanges**
   - Day-ahead Market
   - Term-ahead Market
   - Major Buyers and Sellers
   - Trends in Volume of Power Procured by Discoms
   - Trends in price of Power Traded

**SECTION II: OPTIONS FOR INDUSTRIAL POWER**

5. **Industrial Power Procurement**
   - Grid Power Procurement
     - HT Industrial Power Procurement trends
     - LT Industrial Power Procurement Trends
   - Captive power generation
     - Existing and Upcoming Captive Power Capacity
     - Industry-wise Segmentation of Existing Capacity
     - Average Generation Cost Analysis of Captive Power Plants
   - Open Access
     - Trends in Open Access Charges
     - Landed Cost of Open Access Sourced Power
     - Policy and Regulatory Scenario in Key States
   - Procurement From Power Exchanges
     - Trends in Open Access Consumers
     - Open Access Power Volumes
     - Price Trends in Open Access

6. **Cost of Wind and Solar Power**
   - Wind and Solar Energy Generation Trends
   - Tariff Trends
   - Capital Cost Trends

7. **Cost of Coal-based Power**
   - Key Trends in Coal-based Power Segment
   - Coal Price Trends
     - Domestic Coal Price Trends
     - E-auction Based Pricing
     - Imported Coal Pricing
   - Capital Cost Trends
   - Opex Trends
   - Trends in Overall Cost of Power Generation
   - Tariffs of Coal-based Power Stations
   - Ministry of Power's Scheme for Flexibility in Generation and Scheduling
   - Impact of Stringent Environmental Regulations on Cost of Power
   - Tariffs Discovered Under Recent PPA Auctions Pilot Scheme
   - Capacity Outlook and Projections (2019-20 to 2024-25)

8. **Cost of Natural Gas-based Power**
   - Natural Gas-based Power Generation Trends
   - Natural Gas Price Trends
   - Capital Cost Trends
   - Opex Trends
   - Trends in Overall Cost of Power Generation
   - Tariffs of Natural Gas-based Power Stations
   - Capacity Outlook and Projections (2019-20 to 2024-25)

9. **Cost of Hydro-based Power**
   - Hydropower Generation Trends
   - Capital Cost Trends
   - Tariff Trends
   - Outlook and Projections (2019-20 to 2024-25)

**SECTION IV: EVOLUTION OF POWER PROCUREMENT MARKET**

10. **Peaking Power and Ancillary Services**
    - Management of Peaking Power
    - Re-designing Ancillary Services Market

11. **SCED of ISGS**
    - Overview
    - Pilot Project Regulations by CERC
    - Methodology by POSOCO
    - Pilot Project Findings and Cost Savings
    - Outlook

12. **Outlook and future trends**
    - Outlook for Total Cost of Power Generation
    - Evolving Power Procurement Model
      - Impact of Move to Complete Spot Market-based Power Procurement
      - Impact on Long-term PPAs
    - Future Cost Management Strategies
    - Impact of Increasing Renewable Energy Capacity
    - Key Issues and Challenges

**Release Date: December 2019**
Executive Summary

1. **Power Sector Market Overview**
   - Power Demand and Supply Trends
   - Fuel-wise Power Generation
   - Retail Power Market Structure
     - HT Industrial Segment
     - LT Industrial Segment
     - Commercial Segment
     - Residential Segment
     - Agricultural Segment
   - Key recent Developments
   - Overall Power Tariff Trends
   - Trends in National Average Power Purchase Cost
   - Issues and Challenges

SECTION I: **HT INDUSTRIICAL CONSUMERS MARKET**

2. **Market Overview**
   - Historical Trends
     - Sale of Power to HT Consumers
     - Share of HT Consumers in Total Power Sales
   - Outlook and Projections (2019-20 to 2024-25)

3. **Tariff Trends**
   - All-India Average HT Industrial Tariff Revisions
   - State- and Utility-wise Trends in Average Rate of Sale of Power
   - HT Tariffs as a Percentage of Average Cost of Supply
   - Year-on-year Changes in Tariffs
   - Trends in Cross-subsidy Surcharges for HT Industrial Consumers
   - Trends in Short-term Retail Power Trading

SECTION II: **LT INDUSTRIICAL CONSUMERS MARKET**

4. **Market Overview**
   - Historical Trends
     - Sale of Power to LT Consumers
     - Share of LT Consumers in total Power Sales
   - Outlook and Projections (2019-20 to 2024-25)

5. **Tariff Trends**
   - All-India Average LT Industrial Tariff Revisions
   - State- and Utility-wise Trends in Average Rate of Sale of Power
   - Year-on-year Changes in Tariffs

SECTION III: **COMMERCIAL CONSUMERS MARKET**

6. **Market Overview**
   - Historical Trends
     - Sale of Power to Commercial Consumers
     - Share of Commercial Consumers in Total Power Sales
   - Outlook and Projections (2019-20 to 2024-25)

7. **Tariff Trends**
   - All-India Average Commercial Tariff Revisions
   - State- and Utility-wise Trends in Average Rate of Sale of Power
   - Year-on-year Changes in Tariffs

SECTION IV: **RESIDENTIAL CONSUMERS MARKET**

8. **Market Overview**
   - Historical Trends
     - Sale of Power to Residential Consumers
     - Share of Residential Consumers in Total Power Sales
   - Outlook and Projections (2019-20 to 2024-25)

9. **Tariff Trends**
   - All-India Average Residential Tariff Revisions
   - State- and Utility-wise Trends in Average Rate of Sale of Power
   - Year-on-year Changes in Tariffs

SECTION V: **AGRICULTURAL CONSUMERS MARKET**

10. **Market Overview**
    - Historical Trends
      - Sale of Power to Agricultural Consumers
      - Share of Agricultural Consumers in total Power Sales
    - Outlook and Projections (2019-20 to 2024-25)

11. **Tariff Trends**
    - All-India Average Agricultural Tariff Revisions
    - State- and Utility-wise Trends in Average Rate of Sale of Power
    - Year-on-year Changes in Tariffs

Discoms have long suffered from poor financial health, which is often reflected in their tariff structures. Expensive power, subsidies to certain consumer segments, as well as high aggregate technical and commercial losses have resulted in poor financial and operational performance. Over the years, tariff revisions by discoms have been erratic, compelling the industry to undertake reforms in the retail power market as well. In April 2019, the Central Electricity Regulatory Commission released tariff regulations for the control period from April 2019 to March 2024. These are aimed at creating efficiencies in tariff structures in the retail power market to enable greater profits for discoms while providing savings to consumers. The new report launched by India Infrastructure Research dives deep into each consumer segment, analysing the volume and tariff trends, average cost of supply, and year-on-year tariff revisions. In addition to policy and regulatory developments, it provides comprehensive interstate and inter-utility analysis for each segment across years. Further, the report provides outlook and tariff projections based on the anticipated trends in each consumer segment.
I would like to purchase the “Cost of Power for Discoms and Industrial Users” report:

I would like to purchase the “Electricity Tariff Trends in India” report:

<table>
<thead>
<tr>
<th>Format (PDF)</th>
<th>By October 31, 2019</th>
<th>By November 21, 2019</th>
<th>After November 21, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of Power for Discoms and Industrial Users</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SITE LICENCE (SINGLE LOCATION)</td>
<td>USD 1038</td>
<td>USD 1168</td>
<td>USD 1298</td>
</tr>
<tr>
<td>ENTERPRISE LICENCE (MULTIPLE LOCATIONS)</td>
<td>USD 1558</td>
<td>USD 1752</td>
<td>USD 1947</td>
</tr>
<tr>
<td><strong>Electricity Tariff Trends in India</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SITE LICENCE (SINGLE LOCATION)</td>
<td>USD 1038</td>
<td>USD 1168</td>
<td>USD 1298</td>
</tr>
<tr>
<td>ENTERPRISE LICENCE (MULTIPLE LOCATIONS)</td>
<td>USD 1558</td>
<td>USD 1752</td>
<td>USD 1947</td>
</tr>
<tr>
<td><strong>Cost of Power for Discoms and Industrial Users + Electricity Tariff Trends in India</strong> (Special discounted price on combined purchase)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SITE LICENCE (SINGLE LOCATION)</td>
<td>USD 1870</td>
<td>USD 2103</td>
<td>USD 2336</td>
</tr>
<tr>
<td>ENTERPRISE LICENCE (MULTIPLE LOCATIONS)</td>
<td>USD 2804</td>
<td>USD 3154</td>
<td>USD 3505</td>
</tr>
</tbody>
</table>

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 ________________________________________________________________

Mailing Address __________________________________________________________

Telephone ___________________________ Mobile ___________________________

Fax ___________________________ E-mail ______________________________________

**Wire transfer details:**

<table>
<thead>
<tr>
<th>Beneficiary</th>
<th>Account No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>India Infrastructure Publishing Pvt. Ltd.</td>
<td>094179587002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank Name</th>
<th>Swift Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Hongkong and Shanghai Banking Corporation Ltd</td>
<td>HSBCINBB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank Address</th>
<th>IFSC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-47, Greater Kailash - 1, New Delhi - 110048</td>
<td>HSBC0110006</td>
</tr>
</tbody>
</table>

**Contact details:**

Sumita Kanjilal, Information Products  
India Infrastructure Publishing Pvt. Ltd.  
B-17, Qutab Institutional Area, New Delhi 110016, India  
Mobile: + 91-9958299609, Email: sumita.kanjilal@indiainfrastructure.com  
Tel: + 91-11-46560421, 41034600, 41034601 Fax: + 91-11-26531196