

# India Power Sector Reforms Update

## Issue V – February 2003

(Updates in the period: September 2002 to January 2003)

India power sector reforms update is prepared by Prayas, an Indian NGO based in Pune, working on power sector issues for a decade. We started this initiative last year along with the Public Services International (PSI) which is an international trade union federation, uniting public sector workers in more than 500 trade unions in over 140 countries. Our aim is to monitor the power sector developments in three Indian states of Orissa, Andhra Pradesh and Uttar Pradesh. Four issues of the update have been brought out so far. First issue was in October 2001 with detailed historical overview covering up to October 2001. Second, Third and Fourth issues were brought out in January 2002, May 2002 and September 2002, covering the updates in the respective previous quarter.

This is the fifth issue, being brought out by Prayas independently, and covers the period September 2002 to January 2003. These updates, tracking developments in these states will be published every quarter. For better understanding, it would be desirable if readers also read the earlier updates. All these updates are available at our website [www.prayas.pune.org](http://www.prayas.pune.org). Please direct your suggestions and comments to Prayas at [prayas@vsnl.com](mailto:prayas@vsnl.com).

### Contents

#### Part I: Overview of the Indian Power Sector

#### Part II: Orissa

1. State Overview
2. Regulatory Intervention
3. Private Sector Generation
4. Private Sector Distribution

#### Part III: Andhra Pradesh

1. State Overview
2. Regulatory Intervention
3. State and Central Utilities
4. Private sector Generation

#### Part IV: Uttar Pradesh

1. State Overview
2. State and Central Utilities
3. Regulatory Intervention
4. Private Generation and Distribution

#### References

#### Glossary of Terms

## **Part I: Overview of the Indian Power Sector**

### Electricity Bill 2001

Electricity Bill 2001 (E Bill) is quite close to being passed in the parliament in the ongoing budget session. The Standing Committee on energy has given its consent to the bill and so has the Cabinet. The Standing Committee has recommended significant changes in the E Bill, including substantial reduction in the autonomy and authority of the regulatory commissions. E Bill is expected to bring major changes in the Indian power sector. This includes greater emphasis to private sector, encouraging competition, providing open access to transmission & distribution network, hastening the reform process by giving time bound plan for SEBs to restructure etc.

### Availability Based Tariff

Availability Based Tariff (ABT) is a rational tariff structure for power supply from generating stations on a contractual basis. It has three basic components namely Capacity Charge (based on the fixed cost and SEB's share), Energy Charge (based on the energy cost and the scheduled energy) and Unscheduled Interchange charge (based on the Unscheduled Interchange rate and the Interchange energy). The Unscheduled interchange rate depends on frequency and voltage. Implementation of ABT provides a financial incentive to SEBs for maintaining good voltage and frequency.

ABT was notified by CERC in 2000 and is being implemented in one region after another. It has been already implemented in Western Region (from July 01, 2002), Northern Region (from December 01, 2002) and Southern Region (from January 1, 2003). Eastern Region has requested CERC to postpone the implementation of ABT to 01 April 03. It is reported that the frequency and voltage profiles have improved after ABT implementation.

### Committees and Reports

Udesh Kohli committee report on 'Financing the Power Sector during the 10<sup>th</sup> and 11<sup>th</sup> plan' was submitted in December 2002. It is estimated that Rs. 9,000 billion has to be raised to enhance the generation capacity by 100,000 MW by 2012. Important suggestions include privatisation and disinvestment to raise funds, public utilities to start raising funds, imposition of cess on power generated, tax benefit schemes for power projects etc.

IT Task force on Power was set up in April 2002, as reported in our Update Issue -3. The final report of this task force was submitted in November 2002. It suggests a 3-5 year roadmap to improve utility operations at distribution level using IT.

Deepak Parikh Committee on Power reforms was set up in May 2002. First part of the committee's report covering issues regarding structuring of APDRP and financial principles for restructuring SEB's was submitted in September 2002. Second part covering state-specific reform framework is yet to be submitted. The report suggests that SERCs, utilities and state government should work together to turn around the sector. It also suggests that SERCs should come up with multi-year regulatory regimes, which would instil confidence in private investors.

CRISIL/ICRA report on the credit rating of the State power sectors was released in September 2002. It concludes that 18 of the 27 SEBs in the country fail in the comprehensive financial viability test. Scoring each state on a total of 100 (55 for Business & Financial risk, 20 for State

government, 20 for RC and 5 for others), it puts AP on top of the list with 71.5 marks followed by Karnataka and Haryana. Kerala (27.5), MP (28.5) and Bihar are at the bottom of this list.

Kelkar task force was set up by the Ministry of Finance to review indirect tax policies and its report was submitted in December 2002. Ministry of Power estimates that the tax burden on the power sector would go up by 30% if the committee recommendations were accepted.

#### Dabhol update

Stalemate on the DPC front continues. MSEB's petition before the MERC (mentioned in the last update) has been abandoned for the time being due to lack of written order by the Mumbai High Court (on the issue of MERC's jurisdiction). Though attempts are being made to re-start the phase I of the project (as well as construction of phase II), no solution has been arrived at as yet. In the meanwhile, reportedly, General Electric and Bechtel, two shareholders in the DPC, have initiated moves to take over Enron's share in the company. The Kurudkar Commission of Inquiry appointed by the Maharashtra Government to look into 'governance failure' during the DPC project started the hearing procedures. But, Sharad Pawar, V. Ranganathan as well as the central government have objected to the terms of reference of the Commission. They contend that a judicial commission appointed by a state government does not have authority to go into actions and decisions of the central government, and hence, the terms of reference should be changed. The central government is also pressuring the Maharashtra government to modify the terms of the reference, but the state government has not taken any decision as yet.

#### Power Tariff updates

Free power to agriculture was the policy in two states, namely Punjab and Tamil Nadu. In Punjab, after 6 years of free power supply, PERC has fixed the electricity tariff at 57 paise per unit or Rs 60 per HP per month for agriculture sector. The order in this regard is given by PERC on September 6, 2002. In Tamil Nadu, the tariff revision process is in progress and the proposal is to charge 50 paise/unit or Rs 600 per HP/annum for agriculture.

States of Madhya Pradesh (MP) and Kerala have announced steep tariff hikes, especially for the subsidised agriculture and domestic sectors. In MP, the order was passed in November 2002 with an average tariff hike of 30%. Tariff hike is 3% for HT consumers whereas it is 20-50% for agriculture. The Kerala order came in October and proposes 22-50% hike for the domestic consumers.

Tariff issues related to CESC, Kolkotta were reported in Issue - 4. We had reported that the Kolkotta High Court had set aside the WBERC tariff order (on CESC) in May 2002. WBERC had allowed a tariff hike of 2.5% whereas the High Court permitted a hike of 17.5%. On the appeal by WBERC, the Supreme Court overruled this High Court order in October 2002 and asked WBERC to fix the tariff for CESC. In December 2002, WBERC has created a history of sorts by giving a tariff order with a single rate of tariff (of Rs. 3.90/unit for 2001-2) for all domestic and commercial consumers of CESC. This signals the end of cross subsidy and it is expected that the West Bengal government and many consumer organisations are going to oppose this step.

#### Mega Power Policy

The Union Finance Ministry may modify the existing Mega Power Policy, which was announced 8 years back. Under the new policy all thermal projects above 1000 MW and all hydel projects

above 500 MW will be assigned mega power project status. Under mega power project status there will not be any customs and excise duty on all project imports for the plant. The state governments are also requested to relax the sales tax on projects. The Power Ministry has suggested that some large-scale transmission projects should also be included under new policy, as they require import of high voltage equipment.

### Reliance

Two important updates on Reliance are on the Natural Gas find in AP and the taking over of BSES. In late October, Reliance discovered huge Natural Gas reserves in Krishna-Godavari Basin in Andhra Pradesh. It is reported that the gas reserves may be 7 trillion cubic feet (tcf) and that this gas find is 40 times that of Bombay High and double the gas production of ONGC. The commercial production from this gas field will start after 3 to 4 years.

Another development is Reliance taking over the management control of BSES. In January 2003, it is reported that the new chairman of BSES is Mr. Anil Ambani. Reliance now holds 44.12 % of BSES capital and is likely to add 20% more.

### Other updates

The CERC on January 28, 2003 ordered MPSEB to deposit a penalty of Rs. 1,00,000/- in the commission's office by Feb. 15, 2003. The penalty is charged for non-observance of grid code, which is said to have caused the western grid failure in July 2002. The CERC has also issued show cause notices to GEB and MSEB for the same reason.

PTC has introduced "differential pricing" concept for "round the clock" and "off peak" power. The differential pricing is introduced in Punjab & Delhi. Under differential pricing one can buy power at peak time and sell power in off-peak time.

## **Part II: Orissa**

### **1. STATE OVERVIEW**

To Overcome financial crisis in the state, Government of Orissa (GoO) is negotiating with different agencies for Rs. 30 billion financial assistance in shape of loan or grant. The World Bank (WB) and Department for International Development (DFID) had earlier promised financial support to Orissa of Rs. 8.5 billion. But now the two agencies are laying stringent conditions for the allocation. If the loan amount is not allocated there will be 25% cut in plan outlay for 2002-03 (pegged at Rs. 30 billion).

Orissa has signed a tripartite agreement with NTPC and RBI for its current and past dues to NTPC. Total dues to NTPC are Rs. 9.79 billion. Under this agreement, if current dues are not cleared, centre has the right to block resources earmarked for transfer to the state as central devolution.

The GoO has decided to reduce the electricity duty for Ferro-alloys Industries by 5 paise a unit. Electricity duty in the neighbouring state of AP is 6 paise/unit. Meghalaya and West Bengal have exempted ferro-chrome industry from electricity duty. GoO has also decided to support the proposal of ferro alloys industry to OERC requesting power at reduced rates.

The GoO has taken a decision to sell off 7 mini hydel power projects in the state. These power projects are not in operation as cost of power from these plants is quite high at Rs. 4 per unit.

Orissa power sector has scored 33 points in the CRISIL/ICRA report released in September. The break-up is 15/55 for Financial & Business risk, 5/20 for State government, 13/20 for RC and 0/5 for other factors.

In January 2003, the GoO has decided to supply free power to 1,32,000 families living below the poverty line.

## **2. REGULATORY INTERVENTION**

The tariff revision process for distribution and transmission licensees started in Orissa with filing of annual revenue requirement and tariff for 2003-04 by distribution & transmission licensees. All the four DISCOMs and GRIDCO have submitted the tariff proposals in January 2003. One power intensive ferro alloys Industry located in CESCO's area has prayed to the Commission for concessional tariff. The Commission has decided to consider the same during the tariff hearing. Commission has asked to file all objections before February 28, 2003.

In January 2003, OERC has directed GRIDCO to relax the escrow norms to the three BSES managed distribution companies (WESCO, SOUTHCO and NESCO). The Orissa government had earlier assured the three distribution companies that escrow account will be provided if cash flow is increased as per the action plan submitted to GRIDCO. Now the companies have increased their cash flow by Rs.6 million a month to meet the bulk supply bill of GRIDCO. Even then the government was not releasing the escrow account and was insisting on counter guarantee by distribution companies. It is also to be noted that GoO owes Rs. 543 million to WESCO, and Rs. 550 million to SOUTHCO. OERC issued the order in this connection.

## **3. PRIVATE SECTOR GENERATION**

OPGC is a Joint Venture between GRIDCO and AES operating the Ib valley 420 MW coal power plant. BSES and Tata power are in the race to buy the 49% share held by AES and it is reported in January 2003 that Tata power is likely to purchase it. This take over would be possible only after AES solves the legal issues with GRIDCO. AES has not paid Rs. 4030 million to GRIDCO towards power purchase bills.

## **4. PRIVATE SECTOR DISTRIBUTION**

BSES managed distribution companies in Orissa have appealed in the High Court against the GoO for recovery of dues (Rs. 1600 million). The three distribution companies NESCO, SESCO, WESCO said that because of non-payment of dues by the government, the firms are facing financial troubles. These DISCOMs have also filed a petition in OERC for recovery of dues. These three DISCOMs also owe Rs. 8060 million to GRIDCO. They have given guarantee for amount payable to GRIDCO but the GoO is pressurising BSES to give counter guarantee. As reported in Part I, Reliance has taken management control of BSES in January 2003.

AES was managing CESCO and the arbitration procedure is in progress after AES decided to quit. had opted for arbitration as AES corporation had breached the share holding agreement. Dues of AES to GRIDCO touched Rs. 4279 million when AES left the management of CESCO. Now the procedure of appointment of arbitrators is complete. Mr. David William of New Zealand is the president of tribunal; the other two members will be Mr. Donovan of USA and

Justice. SC Mohapatra of Orissa High court. GRIDCO is expected to file claim before the arbitration tribunal.

### **Part III: Andhra Pradesh**

#### **1. STATE OVERVIEW**

There was a grid failure in the Southern Region on September 26, 2002. Most states of the region went without power for few hours, though AP was not much effected. The frequency regime in AP has improved after ABT was introduced from January 01, 2003.

Gas find in the Godavari basin in October has been a major event. An expert committee has been set up by GoAP to take a realistic assessment of gas availability, time frame in which it can be totally utilised and assess the demand for gas. The committee is headed by Mr. T L Shankar and it is expected to give suggestions to the Government on ways of rapid and full utilisation of gas.

There has been thumping of desks in the government circles over the high performance rating given by the CRISIL study to the state power sector. As was mentioned in Part I of this Issue, AP tops the list of state power sectors scoring 71.5 points out of 100. The break-up is 36/55 for Financial & Business risk, 13.5/20 for State government, 18/20 for RC and 4/5 for other factors.

Analysis on the issue of Agriculture power continues with the ongoing work of the Task Force and the continuing debates organised by Administrative Staff College of India (Earlier developments were reported in Issues 3 and 4).

State is facing one of the biggest droughts now and power shortage is looming large.

#### **2. REGULATORY INTERVENTION**

APERC gave an order dated September 26, 2002 granting special concessional tariff to six Ferro Alloys units in the state. These units had approached the commission after the last tariff order when the wheeling charge was hiked (see Issue 3). They argued that Ferro Alloys is a special category and they would become financially non-viable with the revised tariff. GoAP also supported this claim and accordingly APERC fixed the tariff for Ferro Alloys at 212 p/unit without any public hearing. There have been protests on this non-transparent process, especially since the tariff fixed is lower than the average domestic tariff!

The APERC gave its approval to the Power Purchase Agreement of BPL's Ramagundem project on November 18, 2002. BPL Power Project is a 2 X 260 MW coal based power plant and RC had withheld its consent to the PPA on July 29, 2002, suggesting some modifications. Now that the PPA is approved, financial closure of project is expected in near future and the first unit of the project is expected to be operational in December 2005.

Many objections were raised on PPAs of 4 short gestation power projects at the public hearing held by APERC in December 2002. The four gas based projects are Vemagiri Power plant, Konaseema EPS Oakwell power project, Extension project of GVK Industries and Gautami Power. Objections raised included the need for such generation capacity, validity of the fixed cost of 93-paise/unit and gas availability.

Fuel surcharge Adjustment was introduced in the state through an amendment of Conduct of Business Rules of the APERC. It is reported that the utilities are going to collect Rs. 309 million from consumers on account of fuel surcharge adjustments. This was earlier introduced without public hearing and forms part of the Tariff submissions of the utilities this year.

The APERC on January 27, 2003 gave an order regarding captive generation plants. The commission has allowed captive generation as standby to grid supply. Anyone is allowed to set up captive generation unit (for standby use, up to a capacity of 5 kVA) without prior permission of the commission.

The public hearing on the tariff proposals of APTRANSCO and the four DISCOMs were conducted in February 2003. Proposals do not ask for a revision of tariff. The number of objections received were 103 this year as against about 500 last year. Major issues were: increasing power purchase costs, creeping privatisation of distribution (90 distribution substations are planned to be given to private parties, on management contract later this year), poor quality of power supply to agriculture etc. Another highlight of the public hearing was the absence of participation by employee associations. Analysis and presentation by some employee associations were one of the best in all previous hearings. This year, following a show-cause notice and warning issued to an office bearer of one association (for criticising the utility in public hearing), no presentations were made on behalf of any of the associations.

### **3. STATE AND CENTRAL UTILITIES**

APGENCO thermal units have again performed well in terms of PLF. It was reported in October 2002, that the average PLF of thermal stations of APGENCO in 2001-2 was 86.3%, compared to 81% of NTPC and 14.5% of Bihar.

APGENCO commissioned 4<sup>th</sup> unit of the 6 X 150 MW under-ground hydropower station on the Srisaillam left bank. Total cost of project is Rs. 26,200 million (33,200 million if interest during construction is also considered). The Japan Bank of International Co-operation (JBIC) has funded project. High cost of the project (at an existing dam site) and the doubts on amount of possible power generation continue. It has been pointed out that the station will be able to generate power only for a few days during the monsoon and operation of the station in pump mode will also be limited to a few occasions due to up/downstream reservoir level constraints. APERC has asked for a critical review of the project in its order on Load forecast in July 2002.

APGENCO is planning gas based power projects after finding of gas by Reliance. These projects will be taken up in the 11<sup>th</sup> plan provided gas price is conducive. The list includes Vemagiri (700 MW), Hyderabad Metro (1400 MW), Nellore (30 MW) and Vijayawada (30 MW). Other new hydro and thermal projects planned are: Rayalseema Thermal (420 MW), VTPS Stage IV (660 MW), Priyadarshini Jurala Hydro (220 MW) and Dummugudem Hydro (352 MW).

As per the reform plan, DISCOM privatisation was scheduled to start in 2002. But no DISCOM has been privatised, though there are moves to privatise few substations spread over all 4 DISCOMs. It has been reported in February 2003, that 90 of the 1800 odd distribution substations may be handed over to private parties for operation and maintenance.

### **4. PRIVATE SECTOR GENERATION**

The board of directors of Spectrum Power generation Ltd. has approved conversion of IDBI loan into equity. The Rs. 233 million loan of IDBI will be converted into fully paid up equity shares.

Earlier, the court had ordered SPGL to convert 20% of loan given by IDBI to equity. It is also reported to Supreme Court that accounts for FY 2000,01,02 will be completed before March 2003. In September 2002, following the Supreme Court order, SPGL signed a Trust & Retention Account (RTA) agreement with its lenders and bankers.

It is reported in November 2002 that LANCO group has signed an MoU with Reliance for supply of gas to its power plant.

## **Part IV: Uttar Pradesh**

### **1. STATE OVERVIEW**

In September 2002, the Government of Uttar Pradesh (GoUP) has decided to form four distribution companies. Four companies will be for Meerut, Lucknow, Agra and Varanasi. All four-distribution companies will be 100% subsidiaries of UPPCL.

There has been some progress in NTPC's plan to take up distribution of power in Kanpur through its subsidiary NTPC Electricity Supply Company Ltd (NESCL). In December, the NTPC board has cleared the proposal and has asked NTPC to finalise the model and tariff details with UP. It is expected that an approach similar to Delhi distribution privatisation (where the state government continues to extend support till the T & D losses reduce to manageable level) will be adopted for Kanpur also

UP power sector has scored 43 points in the CRISIL/ICRA report released in September. The break-up is 19/55 for Financial & Business risk, 7/20 for State government, 15/20 for RC and 2/5 for other factors.

### **2. STATE & CENTRAL UTILITIES**

Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. plans to increase capacity of its 220 MW coal based Paricha Power Project by 420MW. BHEL has been selected as the equipment supplier.

Uttar Pradesh Power Corporation Ltd. (UPPCL) gave contract to POWERGRID for execution of a 400 kV double circuit transmission line from Vishnuprayag Hydro Electric project. The cost of transmission project is around Rs. 4.2 billion. Vishnuprayag is a 400 MW Hydel Power Project in neighbouring Uttarakhand state and around 12% of power generated from it will be given to Uttarakhand.

### **3. REGULATORY INTERVENTION**

Kanpur Electric Supply Company Limited. (KESCO) filed its ARR for FY03 on May 25, 2002. UPERC did not accept it and asked the utility to resubmit it. KESCO resubmitted the ARR on August 12, 2002 with required information. UPERC gave its order on January 28, 2003 on the revised application for Aggregate Revenue Requirement for FY 03 by Kanpur Electric Supply Company Limited.

Uttar Pradesh Electricity Regulatory commission gave order on 22 October, 2002 on the application filed by the Uttar Pradesh Power Corporation Limited (UPPCL) for determination of Annual Revenue Requirement (ARR) and Fixation of tariff for the financial year 2002-03. There is a 15% tariff hike for urban areas in the state.



#### **4 PRIVATE GENERATION AND DISTRIBUTION**

AV Birla group decided to go slow on Rosa Power Project as project failed to show any progress. In fact Rosa received a partial escrow cover from UPSEB. The financial institutes (IDBI, PFC) had agreed to lend around Rs. 9000 million.

The neighbouring state of Uttaranchal has 15,000 Mw potential of Hydropower of which 1,124 MW is developed so far. To utilise this potential to generate energy, Uttaranchal Government has framed a private hydropower development policy. Under which private parties can develop hydro projects up to 100 MW on Build, Own, Operate and Transfer (BOOT) basis.

Uttar Pradesh State Industrial Development Corporation (UPSIDC) is setting up 10 MW power generation plant based on natural gas at Export Promotion Industrial Part (EPIP) at Agra. The plant will be set up for providing reliable power supply exclusively to its consumers. H.T. and L.T. electrical distribution network has already been constructed at the EPIP. Bids are invited from private companies to set up the plant in Agra.

NOIDA continues to be under the management of the private company NPCL.

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## GLOSSARY OF TERMS

ABT	Availability Based Tariff
ADB	Asian Development Bank
AP	(The Indian state of) Andhra Pradesh
APCPDCL	Central Distribution Company of Andhra Pradesh
APEPDCL	Eastern Distribution Company of Andhra Pradesh
APNPDCL	Northern Distribution Company of Andhra Pradesh
APSPDCL	Southern Distribution Company of Andhra Pradesh
APERC	Andhra Pradesh Electricity Regulatory Commission
APDRP	Accelerated Power Development Programme
APSEB	Andhra Pradesh State Electricity Board
ARR	Annual Revenue Requirement
BST	Bulk Supply Tariff
CCGT	Combined Cycle Gas Turbine (based power plant)
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CESCO	M/s Central Electricity Supply Company of Orissa Ltd.
CPP	Captive Power Project
CPTC	Central Power Trading Corporation
CRISIL	Credit Rating Information Service of India Limited
CSIs	Civil Society Institutions
DFID	Department for International Development (of UK, called ODA before)
DISTCOM/	Distribution Company
DISCOM	
DSM	Demand Side Management
EHV	Extra High Voltage
ERC Act	Electricity Regulatory Commissions Act (1998)
Financial Year	Indian Financial Year - 1 <sup>st</sup> April to 31 <sup>st</sup> March. Typically represented as FY 98-99 etc.
GENCO	Generation Company

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GoI	Government of India
GoAP	Government of Andhra Pradesh
GoO	Government of Orissa
GoUP	Government of Uttar Pradesh
GRIDCO	Grid Corporation
HP	Horse Power ( 1 HP = 746 Watts)
HT	High Tension (or High Voltage)
HVDC	High Voltage Direct Current
Hz	Hertz
ICRA	Investment information and Credit Rating Agency of India
IDBI	Industrial Development Bank of India
IDFC	Infrastructure Development Finance Company Ltd
IPPs	Independent (Private) Power Producers
IPS	Irrigation Pump Sets
IRP	Integrated Resource Plan (usually implying a least-cost plan that takes an integrated view toward all energy options)
kCal	Kilo Calories
kg	Kilograms
kV	Kilo Volt
kVA	Kilo Volt Ampere
kW	Kilo Watt
kWh	Kilo Watt Hour
LNG	Liquefied Natural Gas
LT	Low Tension (or Low Voltage)
MDBs	Multilateral Development Banks (such as the WB and ADB)
MkCal	Million Kilo Calories
MoU	Memoranda of Understanding
MP	(The Indian state of) Madhya Pradesh
MU	Million Units (million kWh)
MW	Mega Watts
NGOs	Non-Government Organisations
NHPC	National Hydro Power Corporation
NPC	Nuclear Power Corporation
NTPC	National Thermal Power Corporation
NESCO	M/s North-Eastern Electricity Supply Company of Orissa Ltd.
ODA	Overseas Development Agency, UK (now called DFID)
OECD	Overseas Economic Corporation Fund of Japan
ONGC	Oil and Natural Gas Corporation
O&M	Operation & Maintenance
OSEB	Orissa State Electricity Board
PFC	Power Finance Corporation (a GoI-owned financing agency for the power sector)
PLF	Plant Load Factor (also called Capacity Utilisation Factor)
PSIRU	Public Services International Research Unit
R&M	Repair & Maintenance
RBI	Reserve Bank of India
RC	Regulatory Commission
REC	Rural Electrification Corporation, New Delhi
Rs	Rupees (Indian currency)
RST	Retail Supply Tariff
SAR	Staff Appraisal Report (the project appraisal document from the WB)

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SEBs	State Electricity Boards (vertical monopoly power utility owned by the state government)
SERC	State Electricity Regulatory Commission
SOUTHCO	M/s Southern Electricity Supply Company of Orissa Ltd.
T&D	Transmission and Distribution
TEC	Techno Economic Clearance
TOD	Time-Of-Day
TRANSCO	Transmission Corporation
UP	(The Indian state of) Uttar Pradesh
UPPCL	Uttar Pradesh Power Corporation Limited
UPSEB	UP State Electricity Board
WB	The World Bank group
WESCO	M/s Western Electricity Supply Company of Orissa Ltd.