

# India Power Sector Reforms Update

## Issue VI – September 2003

(Updates in the period: February 2003 to August 2003)

India power sector reforms update is prepared by Prayas, an Indian NGO based in Pune, working on power sector issues for a decade. Our aim is to monitor the power sector developments in three Indian states of Orissa, Andhra Pradesh and Uttar Pradesh. Five 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, Fourth and Fifth issues were brought out in January 2002, May 2002, September 2002 and February 2003, covering the updates in the respective previous quarter.

This issue covers the period February 2003 to August 2003. These updates, tracking developments in these states will be published periodically. For better understanding, it would be desirable if readers also read the earlier updates. All these updates are available at our website [www.prayaspune.org](http://www.prayaspune.org). Please direct your suggestions and comments to Prayas at [prayas@vsnl.com](mailto:prayas@vsnl.com).

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

### Electricity Act 2003

We have been reporting the progress of Electricity Bill in our past issues of the update. This most comprehensive piece of legislation, overriding all the existing ones in the power sector, was passed by both houses of Parliament in April 2003 and enacted in June 2003. Electricity Act provides for increased competition in the sector by facilitating open access (permission to use the existing power transfer facilities) to transmission and distribution, power trading and also allowing setting up of captive power plants without any restriction. The states are required to align their reform Acts with this new Act, in effect making this Act applicable all over the country in a uniform manner (except the state of Jammu and Kashmir). The impact of this new Act will be far-reaching and fundamental.

The story of Electricity Bill starts in the year 2000 when the then central minister for power, Kumaramangalam initiated the drafting of a new comprehensive bill to update legislation in the power sector with the reform spirit. Many versions of the draft were produced and for quite a while, it was called Electricity Bill 2001, since it was introduced in the Parliament in August 2001. Kumaramangalam passed away in 2000, Suresh Prabhu replaced him and later Anant Geete took over as Power minister in August 2002. There was a parliamentary committee to look into the bill, which suggested several changes. This bill, now called Electricity Bill 2003, was approved by the Cabinet in February, passed by the Lok Sabha in early April 2003 without any amendments. Many amendments were suggested in the Rajyasabha, but they were kept pending and the bill passed there too in late April. After Presidential assent, this Bill was enacted as Electricity Act 2003 and became applicable from June 10, 2003.

The Electricity Act 2003, is a 100 odd page document with 185 sections covered in 18 parts. Till now, the Electricity Supply industry in India has been governed by three enactments: the Indian Electricity Act 1910, the Electricity (Supply) Act 1948 and the Electricity Regulatory Commissions Act 1998. The 1910 Act gave the basic framework for the industry. It envisaged growth through private licensees and provided for licensees to supply a specified area. The 1948 Act mandated the creation of SEBs with the responsibility of managing electricity supply in the State. The 1998 Act created the Central Regulatory Commission and gave the legal framework for creating State Regulatory Commissions. Electricity Act 2003 replaces these laws and is said to harmonise the provisions of these through a new comprehensive legislation meeting the reform related issues like trading, competition etc.

The main features of the Act are:

1. Generation de-licensed: Thermal generation does not need clearance from CEA. Only Hydel projects need this. Setting up Captive generation does not need permission. Captive generation can be set up by a group or society to meet their needs.
2. Transmission utility at the central level will continue with responsibility of co-ordinated planning of the transmission network. These utilities or the State governments would look after load dispatch.
3. Private companies can take up Transmission
4. Open Access: Any generating station shall be given access to the transmission system without any discrimination, subject to capacity availability. They will have to pay a tariff to the transmission utility, which would include wheeling charge and a surcharge to cover cross subsidy. The captive generating stations using open access will not have to pay the surcharge.



5. The State Regulatory Commission may permit Open access in distribution in phases with surcharge to cover cross subsidy.
6. Distribution licensees are free to undertake generation and generation companies are free to undertake distribution. Multiple distribution licensees for the same area allowed.
7. For rural and remote areas, stand-alone systems for generation and distribution managed through Panchayats, user associations, co-operatives or franchises would be permitted.
8. Power Trading is being recognised as an activity that can be taken up with RCs authorised to fix ceilings on margins. TRANSCOs cannot do trading.
9. Consumer can enter into direct commercial relationship with a generating company or trader. In such a case, the price of power will not be regulated, but the transmission and wheeling charges with surcharge would be.
10. State governments can unbundle the SEBs and create companies. All states should have Regulatory Commissions.
11. An Appellate tribunal will be created at the Centre for disposal of appeals against decisions of CERC and SERCs.
12. Strict laws to deal with power theft.
13. Tariff: Tariff would be along commercial principles to encourage competition and efficiency. Multi-year tariff formulation is suggested with gradual elimination of subsidies. Metering to be 100% in two years time. Time of the Day tariff to be introduced in a phased manner.
14. Central government would bring out National Electricity Policy, Tariff Policy, National policy on standalone systems for rural areas and a National policy on electrification & local distribution in rural areas. CEA shall prepare National Electricity Plan

It is too early to assess the total impact of this new Act. The new policies are expected to be finalised by end 2003. But looking at the Act and the process behind it, some possible impacts are:

1. Entry of more players (mostly private, some public) into generation and distribution.
2. Increase of Captive generation, especially group captives, set up by group of industries to meet their total power needs. Many bulk consumers would desert state owned distribution utilities.
3. Many contracts between bulk consumers and generators (e.g. Railways and NTPC), which would be finalised without public scrutiny.
4. Tariff will change slowly to reflect cost to serve and cross subsidy would reduce and disappear
5. Increased role of Central government in policy formulation
6. End of vertically integrated Electricity Boards.
7. Power sector becomes more complex with entry of many more actors and contracts. Group captive, private distribution companies, transmission licensees and power traders are some new actors. With open access, TOD tariff, many supplier- trader - consumer contracts and many dispersed systems, planning, regulating and operation of the system becomes more complex.
8. Financial deterioration of many state owned utilities

There has been lot of interest in the power sector over this act. Electricity Employees all over the country went on strike on April 7, 2003, the day it was introduced in the Parliament (Loksabha). There have been many meetings, seminars and press articles with varied views on the Act. By and large, the industry has welcomed the new Act, where as the unions, consumer associations and state utilities have been critical of its many features. Formulation of this act marks the culmination of a series of steps by which the central government has taken the lead position (as



opposed to the State governments) in power sector policy formulation. By the end of this year, few more key policy documents are expected to be rolled out, relating to tariff, open access, electricity and rural electrification. As per the requirements of the Act, all rules of the game, including, license conditions, conduct of business and other regulations, tariff methodology and principles, grid code, electricity rules will have to be re-written within a short period of one year!

As part of bulk consumers deserting the state owned grid and making their own arrangements, Railways (one the biggest bulk consumer of State utilities) has teamed up with NTPC to form a new JV called Rail Bijlee Company Limited. Players for power trading have started appearing on the scene. This includes PTC (already existing), Reliance Energy and NTPC Vidyut Vyapar Nigam.

As a follow-up of Electricity Act, a discussion paper on Tariff policy was put up by MoP in June. This paper mentions that it has been prepared with the assistance of CRISIL, but in a peculiar situation CRISIL has clarified that it provided only secretarial assistance to the committee which prepared this report. CERC gave a statutory advice to MoP on this, commenting that this paper is beyond the provisions of the E-Act. (Discussion paper is available at MoP website and the CERC advice on CERC site). It is reported in August that nine states (AP, MP, TN, Karnataka, West Bengal, Maharashtra, Orissa, Punjab and Rajasthan) have written to GoI objecting to the draft tariff policy. They feel that the policy undermines the purpose of State RCs. CERC has put up another discussion paper on 'Terms and Conditions of Tariff' in June and invited comments.

In August, CERC released a discussion paper on 'Open access in inter-state transmission'. Three weeks time has been given to give comments. This paper was prepared by CERC staff and considered as a suo moto petition. Open access is to be provided in transmission and distribution as per the Electricity Act. It is suggested that spare transmission capacity will be made available for open access. The Regional Load Dispatch Centres (RLDC) will be the nodal agency for co-ordinating open access in the respective region and the paper suggests that neutrality of RLDC should be ensured. As opposed to the current postage stamp method of pricing wheeled power, the paper suggests two alternate pricing ideas. One is the contracted path method and the second is the incremental postage stamp method. Both these are dependent on the distance for which power is transferred. The type of open access service could be firm or non-firm depending on the contract between the open access customer and the service provider. The open access charge would include transmission service charge (calculated based on one of the alternatives mentioned above), RLDC charge and a service charge to the transmission utility. Paper gives typical values for these.

In August, GoI has decided to set up a 5-member task force on power sector investments and reforms. This task force is headed by NK Singh (Member, Planning Commission) and is expected to give its report by December 2003.

#### Budget Highlights

Union budget 2003 in March had few policy changes for the sector. Mega power policy (1998) was revised and extended to all thermal projects of 1000 MW and above and Hydro of 500 MW and above. This implies customs and excise duty waiver on imports, 10-year tax holiday, quicker clearances etc. There was a reduction of import duty for LNG Terminals (from 25 to 5%), reduction of customs duty for high voltage transmission projects (25 to 5%) and waiver of import duty for water treatment plants of power projects. The total outlay for the sector was Rs 14,670 Crores, more or less the same as that of the previous year.



### Availability Based Tariff

Progress on Availability Based Tariff (ABT) was reported in Issue V. Western, Northern and Southern regional grids had implemented ABT July 2002, December 2002 and January 2003 respectively. Eastern region also implemented it from April 1, 2003 and with this most of the national grid has come under ABT provisions (except the North-Eastern Grid). As a further step to improve grid operation, generators are being put in free governor mode (so that they respond to grid frequency changes) in a phased manner.

Powergrid had filed a case with CERC on the unscheduled interchange charges that MPSEB is to pay. In May, CERC gave the order asking MPSEB to pay up Rs 114 Crores.

### Dabhol update

Though hectic activities were witnessed for revival of the Enron's, Dabhol plant, which is shut down since May 2001, not much progress has been achieved. The work of Justice Kurdukar Commission of Inquiry set by Maharashtra Government has been suspended after the Supreme Court directive in response to petitions challenging the legality of the terms of reference of the Kurdukar commission. Reliance and Tata continue to show keen interest in taking over the plant and have been making various offers to that effect. On the other hand foreign lenders to the project have made it clear that they are no more interested in continuing with the project and have demanded repayment of their loan. The MSEDCL and IDBI are attempting to re-start generation from the plant after seeking approval of the Maharashtra Government to buy Dabhol power at Rs. 2.8 / u. Their petition before the MERC is still at the preliminary state with Dabhol taking strong objection and attempting to approach the Supreme Court to prevent MERC from hearing the case. In the meanwhile, after the Bombay High Court made available its written order upholding MERC's jurisdiction in terms of disputes relating to Dabhol PPA and the Dabhol Power Company has challenged this order in the Supreme Court. The plant continues to be in possession of Bombay High Court receiver and Tractebel, the engineering and consultancy firm appointed by IDBI to evaluate the phase I re-starting costs, has estimated an expenditure around US \$ 15 million for the same. This is much lower compared to the estimates projected earlier, of more than US \$ 100 million. The legal battle continues between Dabhol promoters (mainly GE/Bechtel and foreign lenders) and MSEDCL / IDBI and governments (state and central) at different forums such as arbitration at London and New York, High court and Supreme Court and MERC. No immediate solutions seem to be in sight.

### Hydro Initiative

It has been reported in May, that the Prime Minister's Office is considering a massive Hydro Power initiative. There is plan to set up a new authority to set up around 50,000 MW of hydro capacity from 162 projects in the next decade. To raise finances (to the tune of Rs. 2,25,000 Crores out of which about one-third would be equity and the rest debt), there may be a levy on every unit of power generated throughout the country.

This summer was one of the worst all over the country and most of the states had to suspend Hydro power generation in April. With the picking up of the monsoon in June-July, situation has marginally improved.



### Other updates

Prayas, Energy group brought out two major publications during this reporting period. One was on the functioning of the Electricity Regulatory Commissions in India and the second on the functioning of the Private Distribution Companies. Both highlight some of the crucial, but still neglected issues in the Indian power sector. Both these reports are available on our website [www.prayaspune.org](http://www.prayaspune.org).

There has been an interesting report on power reforms by ABN Amro in May. Among other things, it points out the increase in investment in power sector after the beginning of reforms, which would further increase after the Electricity Act. Gain to the utilities would take 3-4 years to materialise. But meanwhile the biggest gainers of reform have been the power equipment manufacturers!

August would be marked as the month, which witnessed massive blackouts. Blackout in eastern USA and Canada took place on August 14. It is reported that about 61,800 MW of load was lost and nearly 50 million people spread over 240,000 square km affected for 15-24 hours. This has raised many basic questions on the post-deregulation operation and planning practices. There was another massive blackout in London on August 28, which affected 20% of the city of London. Unlike the US one, this blackout lasted only 45-55 minutes.

## **Part II: Orissa**

### **1. STATE OVERVIEW**

The US\$ 350 m World Bank reform loan period was to end in December 2002. World Bank has extended the loan period to January 2004. It may be noted that in 2001, after a mid term review which criticised the slow pace of reforms, Bank had reduced the loan amount by US\$ 60 m. There are doubts if the full loan amount would be spent by 2004.

The third 500 MW unit of NTPC's Talcher super thermal power station (2 x 500 MW) was commissioned in February. Three more 500 MW units are also planned to be commissioned by 2005.

In April, the state Cabinet decided to offer electricity duty exemption to those industries planning to set up captive stations. As per the current policy, electricity duty for such industries is higher than those buying grid power. This step is expected to give further boost to captive generation.

It is reported that GoO plans to sell 7 mini hydel plants (0.3 to 2 MW capacity), which have not been viable because of the high cost of power (about Rs 4/unit). GoO has plans to expand the capacity of 2 X 210 MW Ib valley thermal station of OPGC by setting up 2 more units of 210 MW capacity.

The status of village electrification continues to be poor in Orissa. As of March 2002, nearly 25% of the villages do not have electricity. This situation has not significantly improved after the reforms. Orissa is one of the five states (others being Bihar, Jharkand, UP and West Bengal) which together account for 90% of the 72,000 un-electrified villages in India. It was reported in May that government might change the definition of village electrification. (As of now, a village is considered electrified if one household has access to power). The new definition may require 10-15% of households to be electrified to declare a village electrified.



In May, it was reported that GRIDCO is planning to sell 100 MW of surplus power with the help of Delhi based Koylela Energy Resources Pvt Ltd, which will be a marketing agent to sell power to any SEB or consumers.

NTPC had decided to regulate power supply to Orissa from February since GRIDCO had not paid the dues. The Orissa High Court has been directing NTPC (in May, June) to continue power supply so that GRIDCO gets time to arrange the money. High Court has set up a 4-member committee headed by Sri. SC Mahapatra to enquire into the issue of GRIDCO dues to NTPC.

GRIDCO is discussing with PFC for a Rs.1200 Crore loan. Progress has been slow on this due to the many conditions insisted by PFC. Conditions include guarantee by the State government and the private DISTCOMs. BSES, the owner of 3 DISTCOMs has been hesitant to give the guarantee and the GoO was planning action against it. It is reported that this issue has been resolved by GoI and the loan would come through.

## **2. REGULATORY INTERVENTION**

### **Tariff process**

In Issue-3, we had reported on the tariff order issued by OERC in April 2002. This tariff order had given many directions to utilities and GoO in the light of the Kanungo committee report. If these suggestions were carried out, retail tariff was expected to remain same. Failure to carry out the corrections would hike the BST by 39% and RST by 40% from August 2002. This order was stayed by the High Court, which directed that there should be no hike in tariff.

GoO subsequently accepted many of the suggestions including putting in abeyance the asset up-valuation (from 2002 till 2006), moratorium on debt servicing to GRIDCO & OHPC, disallowing ROE to GRIDCO & OHPC till 2006 etc. This was notified in the official gazette in January 2003. Subsequent to this, the High Court gave rulings on February 3 and March 14, 2003 asking OERC to re-determine the tariff for 2002-03 as per the corrective actions. A public notice was issued by OERC, broadly stating that the tariffs for 2002-03 would be same assuming that all suggested directions are carried out. Objections were invited and a public hearing held on May 19, 2003. Issues raised in the public hearing included performance & efficiency of utilities, OHPC tariff, power supply quality, postponing the implementation of multi-year tariff and third party sales. Prominent objectors were M/s RP Mahapatra, MV Rao (Utkal Chamber of Commerce and Industry), Akhil Bharat Grahak Panchayat, SK Nanda (CII), KN Jena (Orissa Consumers Association). GRIDCO asked to raise BST from 129p/unit to 251/unit. DISTCOMs asked for a 22% hike in RST.

OERC issued tariff order in June 2003, with no change in tariff, but with some revisions in the ARR figures. It directed the GoO and utilities to follow the Parikh committee recommendations (on distribution reforms, financial re-structuring etc) by October 31, 2003, failing which the tariff may have to be raised. RC also asked transfer of the Rs 1583 Crore-loan liability of GRIDCO to the Power Sector Reform Fund. The next tariff filing, due in December 2003 will have to be for a 3-year period, as per the multi-year tariff plan. This order has been submitted to the High Court, which has issued a stay order, pending a Special Leave petition pending in the Supreme Court.

### **Other updates**

Here are a few comments on the functioning of OERC, from the Prayas report on Regulatory Commissions: Formed in August 1996, OERC is the oldest ERC in the country. It has pioneered



the regulatory process in terms of public consultations and has issued maximum number of tariff orders. It has not published any Annual Report so far and the Advisory Committee meetings are not held regularly. Key posts have remained vacant for long time affecting the performance of the commission. OERC does bring out some publications in local language.

### **3. PRIVATE SECTOR GENERATION**

OPGC is a Joint Venture between GRIDCO and AES operating the Ib valley 420 MW coal power plant. AES and Tata power have been discussing about the sale of the 49% share held by AES. In July, it is reported that AES may sell its share worth Rs 800 crores.

### **4. PRIVATE SECTOR DISTRIBUTION**

With Reliance acquiring majority shares in BSES, it has been renamed as Reliance Energy in June. Anil Ambani became the Chairman and four independent directors were inducted. They are General VP Malik (former Chief of Indian Army), Prof SL Rao (former Chairman of CERC), Dr. Leena Srivastava (TERI), and Prof. J Ramachandran (IIM, Bangalore). All the three DISTCOMs continue to make losses and the current liabilities are estimated to be Rs 918 Crores.

CESCO continues to be managed by the state government and has been taking benefit of APDRP financing for system improvement. The arbitration proceedings with AES have been delayed due to the dispute on the fee. Arbitration fee demanded is \$2100/day and GRIDCO has stated that they are agreeable to Rs.50,000/day (this is the fee charged by the retired Chief Justice of India and is approximately equal to \$1000). Srikant Paikray has taken over from Mahapatra as CEO of CESCO. He has said that CESCO would achieve a turnaround by December 2003 and then handed back to a suitable private company.

Many HT towers and towers of the 500 kV HVDC system collapsed during a storm in June. It took a few days to restore supply. Questions have been raised on the quality of construction of these towers and the efficacy of money spent on T&D system strengthening as part of reforms.

Information provided in a book recently published by TERI, New Delhi on the privatisation of distribution indicates that the performance of the distribution system has not substantially improved after reforms. Losses by DISTCOMs continue to grow (and stand at Rs. 572 crores in 2002) whereas it was expected that they would become profitable from 2001. Retail tariff increase in 1997-2001 has affected low-end consumers much more (rise of 50-60% for domestic, 85% for agriculture) than large industry (8-9% rise).

## **Part III: Andhra Pradesh**

### **1. STATE OVERVIEW**

In August, it has been reported that GoAP is not very keen to extend the loan assistance from World Bank for power reforms. As reported in our Issue-I, WB loan is planned in 5 tranches with many conditions for eligibility. The term of the first tranche of \$210 M is ending on August 31 and GoAP is not very keen to go for the second tranche. Reasons quoted are the conditionalities associated with the loan (like privatisation of distribution, annual tariff hike, removal of subsidy) and the high interest rate. It is pointed out that the ultimate interest burden on APTRANSCO works out to 12.5% when loans from REC or PFC attract only 8% interest rate. It is interesting to note that these very aspects have been highlighted by many CSIs during the RC public hearings and numerous public forums for the past few years.



We had reported the Reliance gas find of 7 TCF in Issue V. In June 2003, Reliance has revised the gas estimate to 14 TCF. GoAP had appointed a three-member committee with TL Sankar as Chairman to prepare measures for quick and optimum utilisation of the natural gas finds of Reliance and Cairns. In June, based on the recommendations of this committee, AP Cabinet has cleared plans to set up AP Natural Gas Development Council to initiate further measures. Committee's other suggestions include the need to construct master plan connecting user industries with gas producer and making the Gas pipeline common for all exploration companies. It has given the gas availability as 10.82 MMSCMD today, 22 MMSCMD by 2005-06 and 40 MMSCMD by 2009-10. Of this, 17 MMSCMD of gas by 2005-06 and 26.5 MMSCMD of gas by 2009-10 is expected to be used for power generation.

The Planning Commission has commented the performance of AP power utilities for loss reduction. It has noted that the investment in T&D in AP has been 60.82% in 2003 as opposed to the national average of 44.97%. A total of Rs. 3971 Crores has been invested in 1997-2002 on the T&D system. Loss figures have come down from 38% (1999) to 26.13% (2003).

There were 9 Rural Electric Supply Co-operatives (RESCOs) in AP. Five of these RESCOs (Atmakur, Raychoti, Kadri - East, Kadri - West and Jogipet) were wound up by GoAP in June. These RESCOs reportedly owe Rs.42 Crores to DISCOMs. Assets and liabilities of these will be transferred to the respective DISCOMs.

In April, a division bench of the AP High Court has set aside the APERC order (given in March 2002) suggesting wheeling charge of 50 paise/unit in cash and compensation for 28.4% loss in kind. Court asked APTRANSCO to honour the wheeling contracts earlier entered into. These had much lower wheeling tariff. This would imply reduction of revenue to APTRANSCO. APTRANSCO has moved the Supreme Court against this judgement. Subsequently, GoAP has decided to levy a cess of 25 paise/unit on captive generation. (This was 6 paise/unit before).

## **2. REGULATORY INTERVENTION**

Public hearings as part of the tariff process was reported in Issue V. Tariff orders were issued by APERC in March. There was no tariff hike for domestic and agriculture sector. There was reduction of industry tariff by 2.96% and of railway tariff by 2%.

On April 9, APERC passed the order on the load-forecast plan for the APTRANSCO. This implies an additional capacity requirement of 5,182 MW by the year 2007-08, based on APTRANSCO's plan to ensure 24-hour power supply to rural consumers and the need to maintain 29 % reserve margin (to ensure a Loss of Load Probability of 1%). This order has cleared the way for giving consent to many gas based projects in AP. It is to be noted that there will be substantial surpluses if all the projects go through as scheduled and if the power export plans do not materialise.

Public hearing on Long Term Tariff Principles (LTTP) was held in June 2002, as reported in Issue IV. Subsequently, a conference was held in August 2002 in which members and staff from 8 Regulatory Commissions participated. In March 2003, APERC gave the final order on LTTP. This is the first of its kind in India, envisaging guidelines for multi-year tariffs for a control period of 3 years. LTTP is planned to be put in place from April 2005 for the four DISCOMs. But there will be a period of 'shadow operation' from the next financial year. When the DISCOMs file their ARR in December 2003 for the year 2004-5, they are expected to provide LTTP filings for the 3-year control period 2005-08.



APERC gave approval to many PPAs in this reporting period. In April, it gave approvals to 4 gas based projects, namely Konaseema Oakwell (445 MW), GVK Extension (220 MW), Vemagiri (370 MW) and Gautami (464 MW). APERC also approved the PPA for the 220 MW gas based BSES Andhra project subsequent to the tying up of gas allocation. This will lead to the power purchase cost of APTRANSCO in the plan period (2002-07) going up by Rs 1896 crores. APERC, however, felt that in spite of this increase, the average cost from these plants would be about Rs 2.50, which would be more or less on a par with the new thermal power projects.

APERC also cleared the PPA for the coal based Rayalaseema Stage II project of APGENCO. Based on earlier directions of the commission, the interest rate on foreign loan was reduced from 6.36% to 6.16% and the source of coal supply changed from Mahanadi coal fields to Singareni collieries. These changes were expected to give a total saving in the levelised tariff of about 30 paise per kWh.

The Prayas report on RCs covered APERC also. APERC has been quite active with many orders and guidelines. Court litigations on RC orders are the highest in AP. Some documents have been brought out in local language. Senior positions have not been left vacant. There are instances of state government influencing decisions of the RC (tariff slabs, special tariff to Ferro Alloys etc).

A unique process of public participation in the sector was the 'Peoples hearing on electricity tariff' organised at Hyderabad in March. This was organised by People's Monitoring Group on Electricity Regulation and Telengana Natural Resource Management Group after the public hearings held by the APERC and before the issuing of the tariff order. Political parties, consumer organisations, trade unions and civil liberty groups participated. The 'People's panel' consisted of V Bhaskara Rao (retired High Court judge), V Bhima Rao (retired Accountant General) and MHP Rao (retired director of Nuclear Power Board). This panel gave its judgement seeking tariff concessions for draught affected farmers, demanding review of PPAs to contain power purchase costs and suggesting steps to improve the efficiency of utility's performance.

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

APGENCO thermal units have again performed well in terms of PLF in 2002-3 winning the top three slots. The 420 MW Rayalseema thermal station stood first in India with PLF of 94.83%, followed by 1260 MW VTPS with PLF of 93.17% and 500 MW KTPS V with PLF of 93.16%. NTPC's plants followed this list. In terms of average PLF of thermal stations in all states, AP's position was 3<sup>rd</sup> in the country after Gujarat and Karnataka.

NTPC's 2 X 500 MW Simhadri station has been tripping many times. In July, it was reported that Unit-1 has suffered 55 outages totalling to 2271 hours (22.3% of total time) and Unit-2 has suffered 31 outages totalling to 987 hours (12.1% of total time) since commissioning. There is a controversy between APTRANSCO and NTPC on the cause of tripping - whether the problem is with the transmission system or the generating station. NTPC is also planning expansion of the Simhadri power project. The feasibility study on setting two 500 MW units at Simhadri STPS is currently in progress.

APGENCO commissioned the 5<sup>th</sup> unit of the 6 X 150 MW under-ground hydropower station on the Srisailem left bank on March 28. It is another matter that not much power was generated from this station. (In fact, hydro power generation was suspended in the whole state from April 10, due to low water levels). Doubts continue if this station would be able to generate much power. It is interesting to note that in the Tariff order issued by APERC in March, generation



from this station is not considered by APERC for the year 2003-4 when APGENCO had projected 900 MU.

CEA has given the techno-economic clearance for the 660 MW VTPS stage V thermal station. KfW Germany is extending a loan of Rs. 1000 Crores and the rest of the money is to be arranged from Indian financial institutions. This would be the first 660 MW generating unit in the country and is expected to be commissioned in 2007.

No DISCOM has been privatised yet, but as reported in Issue V, DISCOMS have started efforts of micro-privatisation in the form of service outsourcing at 33 kV substation level. Technical services like repair and maintenance as well as commercial services like billing and collection are to be outsourced. In February 2003, notices inviting expression of interest were issued. Operation and Maintenance of 90 (out of the 1800) 33 kV substations are to be given on franchise.

AP continues to be the major beneficiary of APDRP funds. Projected benefits of nearly Rs. 164 Crore worth projects include reduction of T&D losses, increased billing and increased revenue.

AP government is examining the viability of setting up a thermal power plant of capacity of around 250 MW at Bhupalapalli in Warangal district. The coal required for the plant will be supplied from the Bhupalapalli mines of the Singareni Collieries Company Ltd.

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

It is reported that Malaysia's Genting group has taken a 30% stake in LANCO Kondapally project by buying out NRG Energy's stake for US\$ 27 m in July. In the same month, the GVK group has acquired major share in the Gautami (Peddapuram) project by buying out from the Satyam group. This may help in financial closure of the project. In June, it is reported that BPL group may pull out of the 520 MW coal based Ramagundam project. BPL has already invested about Rs. 200 Crores and is on the look out for some one to take over the project. Reliance Energy has increased its share in BSES Andhra project to 100% by acquiring 12% share from SEW construction in July. In August, it is reported that GVK group would buy the 33% stake of CMS Energy in the 235 MW Jegurupadu project for \$ 30m. With this, GVK would have 80% stake in the project.

Troubles of the 208 MW Spectrum project continue. In May, the Chief Minister sought help of the finance ministry to restructure a loan taken by Spectrum from IDBI. In June, Spectrum has approached Supreme Court to defer the issue of its equity shares to IDBI for three months. GoAP has turned down the request by SPGL for upward revision of its capital cost from the CEA suggested figure of Rs 748 Crores to Rs. 973 Crores. The Supreme Court, in its order of May 8, directed SPGL to issue shares of Rs 52.04 crore to IDBI and other institutions, however dispute is still on between SPGL and financial institutions on issuing shares.

In May, it was reported that MoP would help to expedite the financial closure of 5 IPP projects in AP. These are BPL Ramagundam, Vemagiri, BSES Andhra, LANCO Kondapalli and Gautami.

### **Part IV: Uttar Pradesh**

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

Towards end August, it was becoming clear that the leadership of the state government would change. In early September, the Chief Minister Mayavati of the Bahujan Samaj Party resigned and subsequently Mulayan Singh Yadav has taken over as the Chief Minister of UP.



Uttar Pradesh has reportedly sanctioned Rs 23 lakhs for 3 small hydro projects totalling to 2.3 MW. Like Orissa, UP also has a poor record of village electrification. It is reported that as of March 2002, there are 18,042 villages to be electrified in UP.

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

The Uttar Pradesh Government plans to set up the 500 MW Anpara 'C' thermal unit 1 in Sonebhadra district and the 210 MW Parichha Thermal (extension to existing 2 units) in Jhansi district through the UP Rajya Vidyut Nigam Ltd in the 10th plan. NTPC is planning to execute the 2x500 MW (Rs 4049 Crores) Rihand STPP stage-II Units 3&4 in Sonebhadra district and Auraiya expansion (1300 MW) during the period.

The four distribution companies- Pashimanchal (headquarter at Meerut), Madhyamchal (Lucknow), Poorvanchal (Varanasi) and Dakshinanchal (Kanpur) are reported to be functional from June. They will be subsidiaries of UPPCL, which will handle the transmission function.

Plan for take over of Kanpur city distribution by handing over KESCO to some party or other has been in progress. In June, it was reported that an umbrella organisation of several power worker's unions in UP had also submitted a bid for 51% of the equity. This was indeed a unique move and workers had gone on strike in April against KESCO sale to NTPC. But in July, it is reported that NTPC would be taking over KESCO.

UP Rajya Vidyut Nigam manages the thermal power plants in UP. Its performance in terms of PLF has been increasing over the years. PLF has gone up from 57.19% in 2001 to 61.18% in 2003.

## **3. REGULATORY INTERVENTION**

### **Tariff order 2003-4**

ARR was submitted by UPPCL in February 03 and revised in March as per suggestions from UPERC. UPPCL suggested a retail tariff hike of 2.13% and no change in the bulk supply tariff to NPCL and KESCO. Public hearing was held in May. Only 8 objections were received before the due date, but a few more gave comments later, totalling to 25. Tariff order was issued dated June 10 with marginal increase in tariff.

This order is quite exhaustive with detailed analysis on performance of the power sector in UP and comparison with other states. A few highlights are given below.

- a) Average duration of supply: For the year 2003, it is 9.08 for rural, 16.5 for district headquarters, 20.5 for cities and 23.4 for industry. Looking at figures from 2001 to 2003, the overall situation has deteriorated for all these categories except for industry.
- b) Multi-year efficiency improvement targets set by UPERC have not helped UPPCL to improve performance in terms of T&D loss, collection efficiency etc
- c) Line loss analysis: District-wise and month wise data is reported for many feeders
- d) APDRP: utilisation in 2003 is 0% compared to 69% for Tamil Nadu, 42.4% for AP and 27.5% for all India
- e) Consumer satisfaction survey: This survey was conducted by ORG-MARG on RC initiative. 2609 consumers in 5 categories (domestic-rural, domestic-urban, commercial, industrial-HT, industrial-LT) spread over 5 districts were contacted. 4 macro parameters considered - supply



quality, accessibility of supply, metering & billing and service quality. Overall satisfaction index varies from 35% (Meerut district) to 45% for Lucknow. Across consumers, varies from 34% (commercial) to 46% for industrial-HT.

- f) Energy audit: On RC initiative, being conducted by ERDA, Baroda for Kanpur and Agra. Expected to be completed by September 2004.

### **NPL Tariff order**

Bulk supply tariff order was issued by UPERC in February 2003. The bulk supply tariff suggested is 2.692 paise/unit.

### **Other updates**

Prayas report on regulatory commission included UPERC also. It mentions the frustration of the UPERC with the state power sector. There have been many data gaps in tariff filings, directives have not been followed and state government has been interfering in the functioning of the sector. Many documents of UPERC are made available in local language. UPERC has been publishing annual reports regularly and no major posts have been vacant.

## **4 PRIVATE GENERATION AND DISTRIBUTION**

In April, a Tri-party implementation agreement has been signed by the governments of and Uttar Pradesh, Uttaranchal and Jaiprakash Power Ventures Ltd. for the implementation of the 4 X 100-MW, 2000 Crore Vishnuprayag Hydroelectric Power project. As per the agreement, Uttaranchal will get 12 % free power from the project and in return it will offer full co-operation in the completion the project. It will also help to lay the transmission lines. Project is expected to be commissioned in end 2006.

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



## REFERENCES

1. TERI Newswire: Fortnightly News abstracts on economy, energy and environment, TERI, New Delhi, Volume 9, Numbers 3-115 (February 2003 to August 2003)
2. Power News: Weekly News updates on Power, Power Line, New Delhi, February 2003 to August 2003
3. Power Line: Magazine on Power, New Delhi, Vol. 7 , Issue 5-8 (February to May 2003)
4. Several News Paper reports and Discussions with people working in the sector.
5. Web site of Ministry of Power: [www.powermin.nic.in](http://www.powermin.nic.in)
6. Web site of Central Electricity Regulatory Commission: [www.cercind.org](http://www.cercind.org)
7. Web site of Central Electricity Authority: [www.cea.nic.in](http://www.cea.nic.in)
8. Website of OERC: [www.orierc.org](http://www.orierc.org)
9. Website of APGENCO: [www.apgenco.com](http://www.apgenco.com)
10. Website of APTRANSCO: [www.aptranscorp.com](http://www.aptranscorp.com)
11. Website of APERC: [www.ercap.org](http://www.ercap.org)
12. Website of UPERC: [www.uperc.org](http://www.uperc.org)
13. Website of World Bank: [www.worldbank.org.in](http://www.worldbank.org.in)
14. India Power Sector Reforms Update, Issue 1,2,3,4,5 (October 2001,Jan 2002, May 2002, September 2002, February 2003) Prayas, Pune. (Available at [www.psir.org](http://www.psir.org) and [www.prayaspune.org](http://www.prayaspune.org) )
15. A Good Beginning, But Challenges Galore, A survey on the Electricity Regulatory Commissions in India, Prayas, February 2003 (Available at [www.prayaspune.org](http://www.prayaspune.org))
16. Performance of Private Electricity Distribution Utilities in India, Prayas, May 2003 (Available at [www.prayaspune.org](http://www.prayaspune.org))
17. Privatisation of electricity distribution - the Orissa experience, Ramanathan and Hasan, TERI, New Delhi, 2003
18. The Electricity Act, 2003
19. Infraline Email news service, February 2003 to August 2003

## 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    |



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|--------------------|---|
| CSIs               | Civil Society Institutions  |
| DFID               | Department for International Development (of UK, called ODA before)   |
| DISTCOM/<br>DISCOM | Distribution Company  |
| 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  |
| 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  |



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|---------|--|
| 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)                      |
| 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.                                    |