

# India Power Reforms Update

## Issue X – March 2005

(Updates in the period: October 2004 to February 2005)

### INTRODUCTION

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 at an all- India basis and in four Indian states of Orissa, Andhra Pradesh, Uttar Pradesh and Maharashtra. Nine 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, Fifth, Sixth, Seventh, Eighth and Ninth issues were brought out in January 2002, May 2002, September 2002, February 2003, September 2003, December 2003, May 2004 and September 2004, covering the updates in the respective previous period. Editions from the eighth issue are brought out under the TNI-Energy project.

This Tenth issue covers the period October 2004 to February 2005. 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.prayasenergy.org](http://www.prayasenergy.org). Please direct your suggestions and comments to Prayas at [prayasenergy@vsnl.net](mailto:prayasenergy@vsnl.net).

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## **PART I: OVERVIEW OF THE INDIAN POWER SECTOR**

### **Economic Survey**

Economic Survey was released in February before the budget presentation. Few key aspects related to power are:

- Power generation growth in 2004-5 is expected to be 4.5%. It was 6.5% in April-December 04 as compared to 3.4% for the same period last year
- PLF of SEB and Central sector plants have been stagnant from 2002-3 at around 68% and 78% respectively. PLF for private sector plants have grown from 78.9% to 86.9% in the same period.
- Emphasis on Rural electrification – see later on National Electricity policy
- 24 out of 28 states have formed regulatory commissions, 18 have issued tariff orders. 12 SEBs have been unbundled and 10 are expected to do so soon. Orissa and Delhi distribution has been privatised and UP has started the process.

### **National Policies**

#### National Electricity Policy

The Union Cabinet on February 02 cleared the National Electricity Policy and it was notified on February 12. The policy continues with the spirit of competition, privatisation and supply orientation, as in the E-Act and previous draft policies. Emphasis on rural access, qualifiers on energy efficiency, statements on relief & rehabilitation are some welcome points of departure. The key features of the policy are given below.

1. Access to electricity for all households in next five years. Per capita availability of electricity to be increased to over 1000 units by 2012. Minimum lifeline consumption of 1 unit/household/day as a merit good by year 2012.
2. Power-Demand to be fully met by 2012. Energy and peaking shortages to be overcome and spinning reserve to be available. Creation of adequate generation capacity with a spinning reserve of at least 5 per cent by 2012 with availability of installed capacity at 85 percent
3. Financial Turnaround and Commercial Viability of Electricity Sector.
4. CEA to notify first National Electricity Plan in six months with a perspective up to 12th Plan period. The Plan prepared by CEA to be used by prospective generating companies, transmission utilities and transmission/ distribution licensees as reference document.
5. Development of Rural Electrification Distribution backbone, village electrification and household electrification to achieve the NCMP target of completing household electrification in next five years. Financial support in terms of capital subsidy to States for rural electrification. Special preference to Dalit Bastis, Tribal Areas and other weaker sections for rural electrification. REC to be nodal agency for rural electrification at Central Government level.
6. Harnessing Hydro generation potential with attention to rehabilitation & resettlement and safeguards for environmental protection.
7. Increasing the share of Nuclear power and facilitating private sector partnership in this area.
8. Continuing Renovation & Modernisation efforts
9. Steps to facilitate use of captive power potential

10. Development of National Grid. Support for strengthening transmission system.. Arrangement of CTU operating RLDC's to be reviewed and a decision to be taken by December 2005. NLDC to be notified by June 2005.
11. Open access to be facilitated. SERC's to announce transmission charges by June 2005. Transmission tariff to be sensitive to distance, direction and quantum of power flow
12. Assigning of PPAs to distribution companies subject to mutual agreement, since State Transmission Utilities should not engage in trading.
13. Improve distribution system through efficiency improvement measures. For grant of second license, a revenue district, a Municipal Council or a small urban area will be the minimum area.
14. SCADA, HVDS and similar technology initiatives to be supported keeping in view the techno-economic considerations.
15. Cross subsidies to be reduced gradually. Provision of support to lifeline consumers (households below poverty line having consumption of 30 units per month) with tariff being upto 50% of average cost of supply. This is to be re-examined after 5 years.
16. Availability based tariff (ABT) to be extended to State level by April 2006 for better grid discipline through economic signalling
17. A part of new generating capacity (say 15%) may be sold outside long term PPAs, to promote market development.
18. Adequate transitional financial support for reforming power utilities. Encouragement for private sector participation in generation, transmission and distribution.
19. Exploitation of non-conventional energy sources such as small hydro, solar, biomass and wind for additional power 'generation capacity.
20. Demand side management through energy conservation measures. Label regarding energy efficiency to be displayed on appliances, efficient agricultural pump sets and efficient lighting technologies to be promoted, appropriate tariff structure for managing the peak load.
21. Necessary regulations and appointing Ombudsman for redressal of consumers' grievances to be in place in six months. Government and RCs to facilitate capacity building of consumer groups.
22. RCs to be strengthened with required expertise and financial autonomy. A Regulatory Commission Fund may be established.

With the National Electricity Policy getting the Government's nod, the Power Ministry is expected to come out with other policy directions including the National Tariff Policy, Rural Electrification Policy, National Electricity Plan, Guidelines for Competitive Bidding over the next few months.

### National Tariff Policy

A new tariff policy for the power sector is expected to be announced in March 2005. NTP is expected to cover the critical issue of cross subsidy and the role of state regulators. The union power minister has said in February that the state regulators will not have unlimited powers and will be following a set of guidelines to be fixed by the tariff policy. The Union power secretary RV Shahi said on 16/2 that the tariff policy would lay down the macro-level ground rules on electricity tariff fixation, which every SERC will have to mandatorily follow. On cross subsidy, it is expected that the NTP will ask the SERCs to come up with a time bound schedule to eliminate cross subsidies within a period of about 5 years.

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## National Electricity Plan

As per the provisions of the E-Act, the draft National Electricity Plan (NEP) has been prepared by the Central Electricity Authority (CEA), in February. NEP has set the target of capacity addition of 60,769 MW for the 11th Plan (2007-12). NEP covers power sector review, plans for capacity addition, energy efficiency measures and resource requirements. It takes demand projections made in the 16<sup>th</sup> Electric Power Survey (EPS) as the base. It considers two scenarios: Scenario-I with low GDP growth of 6.5% (as assumed in the 16<sup>th</sup> EPS) and Scenario II with high GDP growth of 7.4%. By the end of 11<sup>th</sup> plan (2012), NEP suggests an installed capacity of 2.02 GW in Scenario I and 2.24 GW in Scenario II. Capacity is expected to be 2.73 GW by the end of 12<sup>th</sup> plan, i.e., 2017.

For the 11<sup>th</sup> plan, NEP expects a peak demand reduction of 5% (by energy efficiency measures), an inter-regional diversity factor of 3.5%, additional capacity requirement due to Accelerated Rural Electrification Programme to be 12,300 MW, additional capacity requirement due to household modernisation to be 8300 MW, spinning reserve of 5% (implying a capacity requirement of 7820 MW), LOLP of 1.07% and ENS of 0.0342%.

Many organisations, including Prayas have commented on the draft NEP. Prayas has said that the assumptions behind the plan are not clearly spelt out, tariff implications are not elaborated, experiences of previous planning exercises not considered and energy efficiency not given sufficient attention.

## Rural Electrification issues

In February, the union power minister has said that unlike the previous efforts, the Centre will play a lead role in not only funding rural electrification projects but also in implementing the same. He said that the Rural Electrification Corporation which was so far a funding agency will now take part in project implementation. It is also reported that the government is expected to allocate Rs. 2,000 crore for rural electrification in the Budget. The programme, which aims at supplying electricity to all rural areas over the next five years, is to be jointly implemented by the Centre and state governments. It is envisaged to provide an enhanced capital subsidy of 90 per cent, against the current 40 per cent.

## CERC

### Open Access Regulations revised

In February, the Central Electricity Regulatory Commission (CERC) has announced streamlining of the norms for seeking open access in inter-State transmission. This is based on the operational feedback received from stakeholders, an official release said. The existing regulations were introduced in February 1, 2004, in pursuance of the Electricity Act, 2003.

CERC has introduced a monthly timetable for advance reservation of transmission capacity. In its amendments to the open access regime, which will be applicable from April 1 2005, the regulator has also proposed part-day transmission charges to reduce the cost of wheeling peaking power. Under the part-day charges introduced by CERC, the transmission cost for short-terms customers is only a fourth of the daily charges, if they use the transmission lines for six hours or less in a day. Similarly, for usage of up to 12 hours a day, only half of the per-day charges shall be applied. Under the monthly timetable that has been introduced for the grant of transmission access to short-term customers, there will be a provision for advance reservation of lines for three

months. Applications must be submitted by the 19th day of the month. They will be processed together and access shall be granted by the 26th. For advance reservations for short-term customers, congestion management will be done through electronic bidding. The regulator has also announced an exit option to short-term customers, whereby a customer can surrender the reserved transmission capacity by paying a minimum of seven-day charge or the charge for the balance period of reservation, whichever is shorter. CERC has not changed the pricing scheme for intra-regional transmission access.

In line with the original open access norms applicable from February 2004, transmission customers have been divided into two categories — long-term and short-term. A long-term customer will be allowed access based on the transmission planning criteria stipulated in the Indian Electricity Grid Code. Allotment priority of long-term customers will be higher than that of short-term customers. Short-term customers will be the first ones to be curtailed in the event of transmission constraint, according to the norms. To avoid pan caking, the Commission has decided that for short-term intra-regional transactions, the short term customer shall be charged at the rate of 25 per cent of the last year's effective rate for long-term customers, and average transmission losses shall be applied.

#### Competitive bidding for power purchase by DISCOMs

In January, the government notified guidelines for tariff determination via competitive bidding, for procurement of power by distribution licensees. As per the guidelines, a distribution company can call for bids for supply of power through a competitive process and identify a supplier. Tariff determined via this process will not be scrutinised by the regulator. The tariff structure in the notification mentions a formula for energy charges which will depend on the price of fuel and scheduled generation, among other things as well as capacity charges.

#### Applications for transmission license

In December, Reliance Energy Ltd (REL) has applied to the CERC seeking licence for transmission of power in western India for 20 lines and 13 sub-stations in western India. It is also reported that a Malaysian company in joint venture with an Ahmedabad-based company has also approached the CERC seeking a similar licence in Bina-Nagda sector. CERC has said that it would consult all the parties, including Power Grid Corporation Ltd and consumers (in this case State Governments) and after that an advertisement would be made in newspapers. It has been reported earlier that POWERGRID, the state owned transmission utility has approached the MoP seeking authority to decide entry of private players into transmission.

#### Open access in States

In October, CERC has asked all state Electricity Regulatory Commissions to finalise a time frame for open access in distribution by December-end. Open access in distribution would allow a consumer to choose his electricity supplier. As of date, only few states (AP, Maharashtra, Karnataka etc) have come up with regulations on open access.

#### **FDI in Trading?**

Government is considering allowing Foreign Direct Investment (FDI) in power trading, Lok Sabha was informed in December 2004. "The policy on allowing FDI in power trading is under consideration," Power Minister P M Sayeed said in a reply to a written question. He said BG

Energy Holdings Ltd, UK, a subsidiary of British Gas Group Plc., has applied to Foreign Investment Promotion Board for foreign direct investment in power trading in India.

### **Coal and Gas shortage issues**

In December 2004, the power ministry has warned of a massive 50 m tonne coal shortage in the next 2-3 years that could trigger a major crisis in the infrastructure sector, even if the new capacity addition target of 41,000 MW during the 10th Plan is met. In a presentation to the Planning Commission, the ministry estimated that on an average 11m tonnes of coal would have to be imported by power utilities every year during the remaining period of the 10th Plan. It has also sought granting a one-time special approval from the Public Investment Board and the Cabinet Committee on Economic Affairs for all the mining projects during the 10th Plan. The power ministry is reported to be in favour of pushing the coal mine de-nationalisation bill and streamlining the captive coal block allotment process. The ministry also suggested withdrawing the coal companies' authority to decide coal prices and suggested setting up a coal regulator to the same.

The ministry is also concerned about gas shortage for existing and new plants. Fuel linkage by central power projects is available for only 13 mmscmd, as against a demand of 16 mmscmd. The average supply is still short at 10 mmscmd, the ministry said. Apart from a number of gas-based plants working sub-optimally, the 360 mw Kayamkulam and 174 mw Cochin plants in Kerala have been closed, the ministry said, adding some stations like Anta, Auraiya, Faridabad and Kawas are using naphtha — which is costlier — as a secondary fuel. The per unit cost of electricity generated using naphtha as fuel works out to be Rs. 3.3 at port and Rs. 3.6 at the load centre. The price of naphtha has nearly trebled to Rs. 20,700 per million tonnes at present compared to Rs. 7,072 per million tonne in 1998, it said and suggested naphtha pricing be based on cost plus basis instead of import parity. For dealing with the pricing issues in the gas sector, the ministry favoured pursuing the petroleum regulatory bill. The regulatory mechanism should cover both the upstream and downstream companies, it added.

### **Appellate Tribunal**

There is all-round disappointment in the delay of appointment of the appellate tribunal since, after the E-Act, all appeals on SERC decisions are to be filed with it. In October, it was reported that the government has short listed 26 names including that of incumbent Central Electricity Authority chairman HL Bajaj, Delhi Electricity Regulatory Commission chairman VK Sood and a host of retired bureaucrats and CMDs of PSUs for the posts of two members in the proposed appellate body for the power sector. The appellate body will be headed by a chairman who will be either a retired chief justice of a high court or a retired judge in the Supreme Court. In October, MoP had notified details of salary, allowances and conditions of service of the tribunal staff and also procedure for appeal. On 14/2/05, the Union power minister has said that the Centre has finalised the selection process of the Chairman and members of the proposed Appellate Tribunal for Electricity and the appointments would be notified soon. It is ironical, that even after Mumbai high court directive that the appointments on Tribunal be made before January 17<sup>th</sup>, 2005, no such action has been taken.

### **APDRP Review**

The power ministry and Planning Commission are looking to separately evaluate the Accelerated Power Development Reform Programme (APDRP). The APDRP, the first incentive-based reform

programme in the power sector aimed at accelerating distribution reforms, is widely perceived to be a failure.

The Planning Commission is of the view that the programme, launched by the government in 2003, has not had the desired impact and should be reformulated as a purely incentive-based scheme. The programme was not meeting its objectives and focussed too much on expenditure instead of the outcome, said officials. The plan body is, therefore, considering a proposal to review the programme. The Programme Evaluation Office is expected to outsource the job to an independent agency.

The power ministry is contracting the appraisal to five independent agencies, including The Energy and Resources Institute (TERI), Indian Institute of Management, Ahmedabad, and the Administrative Staff College of India, Hyderabad. None of these agencies were involved in the formulation of the APDRP.

### **USAID Project**

In October, the United States and India launched a \$30- million, five year initiative to expand bilateral cooperation in electric power distribution reforms in India. The representatives of the Union Government and the US Agency for International Development (USAID) will jointly work on the Distribution, Reform, Upgrades and Management (DRUM) project. This has many components including setting up local resource centres and a massive training exercise for power professionals.

### **TERI Tariff study**

In January, it is reported that TERI has prepared an analysis report on Tariff orders of different SERCs. The report gives summary of tariff orders of SERCs like AP, UP, Orissa, Karnatka and Maharashtra.

### **Updates from States**

The Gujarat Electricity Board (GEB) has been restructured into seven independent corporate entities focusing on power generation, transmission and distribution with effect from January 1, 2005. The seven companies that will take charge with certain modifications would include Gujarat State Electricity Corporation, which will take the responsibility for existing power generation assets; Gujarat Energy Transmission Corporation for power transmission; Gujarat Urja Vikas Nigam, which has been incorporated to act like a power trading company, taking overall responsibility and working of GEB assets, properties and functioning of GEB and four companies set for the distribution of power in the four zones in the state. The four power distribution companies include, South Gujarat Electricity Company, Central Gujarat Electricity Company, Western Gujarat Electricity Company and North Gujarat Electricity Company. It may be noted that in November 2004, it was reported that Private power distribution majors and public sector undertakings, had filed expression of interest (EoI) with GEB for the power distribution rights in cities except in Ahmedabad and Surat. This included Reliance Energy, Tata Power, IFFCO and NTPC.

In November, it is reported that Punjab State Electricity Board would be unbundled to 5 companies, including 3 distribution companies. There will be one generation and one transmission company. It is also suggested to have a holding company, Powercom, to oversee the unbundling process for 2 years. Ernst & Young were the consultants for preparing this report.

## II ORISSA

### 1. STATE OVERVIEW

#### Energy police stations to curb power theft

In January, it is reported that the state government is planning to open 29 more 'energy police stations,' in addition to the existing five, to curb power thefts. The new stations will be mostly opened in police districts which do not have one. The existing five police stations are at Balasore, Berhampur, Khurda, Cuttack and Sambalpur. Each of the energy police stations will have a circle inspector, two assistant sub- inspectors and 15 constables. To start with, the government will draft the services of retired police personnel to man these stations.

#### Orissa seeks free power from projects

While the Union power minister is trying to convince states to forgo the free power they are entitled to from hydro projects, Orissa has launched a campaign to get free power from export-oriented thermal power projects coming up in the state. In February, it is reported that the government has written a letter to the Union power ministry, demanding compensation from such power projects. The issue has also been raised with the planning commission and the state energy minister has said that the demand is for 12% share in the thermal power produced in the state free of cost as it is in vogue in hydro-power producing states.

It may be noted that at present, states get 12% of the hydro power generated each year, free of cost. The cost is recovered from the rest of the electricity sold, which makes the rates uncompetitive for paying consumers. However, many states, like Jammu & Kashmir, Arunachal Pradesh and Madhya Pradesh have decided not to take free power from hydro projects for the time being. However, states with significant hydro power potential, like Himachal Pradesh, Uttaranchal and Meghalaya, are opposing this decision. An earlier attempt by the power ministry to move a Cabinet note to this effect had to be abandoned in the face of stiff opposition from some states. The power ministry is, therefore, proceeding on a case-by-case basis to convince states to forgo some free power in the initial years to make these projects viable.

#### NTPC project

In February, it is reported that NTPC has approved an investment of an estimated Rs. 229.24 crore to undertake renovation and modernisation (R&M) Phase-III of Talcher TPS. The investment is proposed to be funded in a debt equity ratio of 50:50. The R&M Phase-III is proposed to be completed by March 2008.

### 2. REGULATORY INTERVENTION

#### Tariff revision process

As reported in our previous issues, the tariff revision process in Orissa was caught in regulatory and legal problems for the past 2 years. As per the utility proposals in December 2003, OERC had issued an order in June 2004 asking for objections on the tariff proposals. Based on a petition by Orissa Consumers Association (saying that after the E-Act, OERC cannot determine tariff without first preparing the required regulations), the High Court of Orissa had stopped the tariff process. After the new judgement from the High Court of Orissa in October 2004, 4 DISCOMs

and GRIDCO submitted tariff proposals for 2004-5 and 2005-6 in October - November 2004. Objections were invited and tariff hearings conducted in January 2005. The number of objectors who made presentations were rather low, around 15-20 for each utility. Salient features of the tariff proposals are:

- OERC's request to GoO requesting subsidy support
- Special tariff for power intensive industries
- Carry forward of past losses
- Request by 3 DISTCOMS (except CESCO) to keep ABT implementation in abeyance till metering is complete
- DISTCOM Tariff proposal 2004-5

	CESCO	NESCO	SOUTHCO	WESCO
Revenue Requirement (Rs. Cr)	1482	577	388	758
Revenue gap including regulatory asset at proposed tariff (Rs. Cr)	524	115	87.71	15.77
Current Average Tariff (p/kWh)	279	247	279	275
Overall tariff hike (%)	29.88	19.26	24.16	14.9
LT Tariff hike (%)	38.19	33.68	31.5	30.45
HT Tariff hike (%)	30.58	17.02	18.61	10.14
EHT Tariff hike (%)	16.3	7.24	12.22	9.03

- DISTCOM Tariff proposal 2005-6

	CESCO	NESCO	SOUTHCO	WESCO
Revenue Requirement (Rs. Cr)	1605	883	596	940
Revenue gap including regulatory asset at proposed tariff (Rs. Cr)	612	322	236.34	87.25
Overall tariff hike (%)	29.79	18.44	23.6	16.1
LT Tariff hike (%)	38.99	34.96	31.8	30.72
HT Tariff hike (%)	26.59	15.29	18.51	10.66
EHT Tariff hike (%)	19.9	7.07	12.18	11.92

- GRIDCO Tariff proposal for 2004-5 and 2005-6

	Existing	2004-5	2005-6
Demand Charge (Rs/kVA)	200	250	250
Energy Charge (p/kWh)	CESCO:92; NESCO:86; SOUTHCO:84; WESCO:96.5	182.69	80.95
Transmission Tariff (p/kWh)	32	38.36	36.91
GRIDCO's Trading			
Demand Charge (Rs/kVA)			250
Energy Charge (p/kWh)			54.05
Transmission Tariff (p/kWh)			27.215

Tariff order for 2004-5

In February, OERC has issued Tariff Orders for GRIDCO and the DISTCOMs for 2004-5. These are detailed orders analysing the performance of utilities and setting them performance targets. Tariff order for 2004-5 was released by OERC in February 2005. Retail tariff hike has been allowed as requested by the DISTCOMs. Table below gives the details. It can be seen that the revenue gap has been reduced and tariff hike is as per the proposal for 3 DISTCOMs. The case is similar for CESCO, though similar data could not be compiled from the tariff order.

	CESCO	NESCO	SOUTHCO	WESCO
Revenue Requirement (Rs. Cr)	706	493	306	687
Revenue gap including regulatory asset at proposed tariff (Rs. Cr)	-34	52.42	-34	-21
Current Average Tariff (p/kWh)	279	247	279	275
LT Tariff hike (%)		34.75	31.5	30.45
HT Tariff hike (%)		16	18	10
EHT Tariff hike (%)		7	11	9

Loss reduction targets have been set at 3% reduction per year for all the DISTCOMs.

In case of GRIDCO, the BST is kept same and not hiked as requested by GRIDCO. Since the tariff order has come out in February, with only one month to go for the end of the financial year, it is expected that the next tariff order (for 2005-6) would address some of the pending issues raised during the tariff process.

Order on CESCO/AES

As reported in previous issues, CESCO has been under state management control after an OERC order in August 2001. Proceeding on this issue has been continuing. In a land mark order dated February 26, 2005, OERC has revoked the distribution license of CESCO. OERC has kept the order in abeyance for 45 days, giving time to AES for appeal.

Order on DISTCOM Business plans

In February, OERC has given its orders on the business plans submitted by the DISTCOMs last year. In the order, OERC has given performance targets and matched the plan figures with the tariff proposals.

**3. PRIVATE SECTOR GENERATION**Jindal Stainless plans captive thermal unit

In December, it is reported that Jindal Stainless Ltd proposes to set up a captive thermal power plant to meet its future requirements in Orissa. The power plant will have two modules of 125 MW each - total of 250 MW. The expected date for completion of the first module would be 24 months. The total project cost is estimated to be around Rs. 850 crore.

### AES expansion project

In the last issue, we had reported that the foundation stone for Unit 3&4 at Ib valley was laid by the Chief Minister. In December, it is reported that the AES Corp-managed Orissa Power Generation Corp (OPGC) has appointed German firm, Lah Mayer International, as consultant for this Rs. 1,800-crore expansion project. The plan is to expand capacity of its 2X 210 MW Ib Valley thermal power station (ITPS) at Banharpal in Jharsuguda district by adding two more units of 250 MW each.

## **4. PRIVATE SECTOR DISTRIBUTION**

### Reliance Energy introduces remote meter reading system

It is reported that the REL group managed DISTCOMs in Orissa are planning to improve metering by using better technologies. The plan is to install remote meter reading system for its HT/LT consumers in a phased manner using the State-of-the-art GSM modem technology.

The Rs. 400-crore bonds issued by Reliance Energy Ltd (REL) have become a bone of contention between the GoO and NTPC. REL had issued bonds worth Rs. 400 crore in favour of Gridco to offset the dues. The bonds, with 12.5% coupon rate redeemable in seven years were issued in October 2000. Gridco, the state owned transmission company then pledged the bonds with NPTC in lieu of dues of the Central power utility. REL has, however, defaulted to the tune of Rs. 150 crore towards the interest payment by now. With REL defaulting in payment of interest on the bonds, NTPC has asked the state government to transfer the bond amount as per the tripartite agreement. The state government, however, is unwilling to oblige NTPC for it would weaken the financial position of the state.

### Revoking of CESCO license

As reported in the previous section, OERC has revoked the distribution license of AES by its order in February 2005. State government has been managing CESCO for the past 4 years. The implications of this landmark order will be clear in a few months.

### **III ANDHRA PRADESH**

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

##### **Free Power to Agriculture**

In the last issue, we had reported the problems arising out of the free power policy. The number of unauthorized connections was reported to be high, power demand was rising and there was fear of ground water depletion due to indiscriminate pumping.

There have been debates and consultations on the free power policy. APTRANSCO organised a one-day consultation workshop in November. In the next week, MoP and TERI organised another workshop at Hyderabad, in which the Chief Minister and Union Power Secretary participated. Considering that this is a national issue, the GoAP urged MoP to convene a national debate to find a solution to the issue of overloading and indiscriminate use of power, a repercussion of the free power relief given by various states like Maharashtra, Tamil Nadu including Andhra Pradesh to their agricultural community. Consultations were held with political parties. There are complaints that many farmers associations were not involved in this consultation process, these meetings formed the basis for the new farm power policy announced by the state government in January.

On January 27, the new farm power policy was announced. According to the new policy framework, farmers in the dry land areas having more than three connections in the name of their family will be charged a tariff of Rs. 0.50 per unit or equivalent flat rate or a tariff of Rs. 0.20 per unit or equivalent flat rate tariff if they adopt power saving measures. Even small and marginal farmers owning wetland up to 2.5 acres will continue to get free power but they need to adopt power saving measures such as installing capacitors, take to frictionless foot-valves, and new pump sets by March 2006. On the other hand, corporate farmers, including partnership firms and societies and income-tax assesses owning agriculture lands will be charged a tariff of Rs. 2 per unit. However, the tariff will be Rs. 1/unit if such farmers adopt power saving measures. Metering will be compulsory and no supply will be based on flat rate tariff.

It is estimated, as per a sample survey that 90 per cent of farm service connections will get free power. As per sample survey 2.62 lakh (10.55%) connections will have to pay and 22.21 lakh will get free power. Even though there have been criticisms that there are gaps in the policy, by and large, this policy has been welcomed by many.

##### **Low Industry Tariff**

In January, the Chief Minister has announced that his government intends to offer 4% tariff cut to the industry in the next fiscal 2005-06. This is part of many other initiatives planned in the state to attract industry, as part of the new industrial policy. This direction has been taken up in the tariff proposals of utilities.

##### **World Bank Loan?**

In January, there are reports indicating that the World Bank may resume loans to the state power sector. APTRANSCO assured a World Bank team that it is continuing the power reforms, without any deviations and the Bank must continue its support to the programme as earlier. The proposed World Bank support, according to sources, includes the issue of third instalment of the 'structural adjustment loan' (SAL) to the tune of Rs. 1,600 crore. The State had received over Rs.

3,000 crore under SAL 1&2 in the previous years. The State finance minister K Rosaiah has also said that the government is prepared for an eventuality of not receiving the SAL 3 loan.

### **HVDS scheme**

Plans on HVDS were reported in the last issue. In January, the Finance Minister, Mr K. Rosaiah (who virtually looks after the power sector also) said while addressing the inaugural of 'Save Energy 2005' exhibition that the State Government is planning to establish a high-voltage distribution system in the State with an outlay of Rs. 5,000 crore in the next five years. APTRANSCO has also been making similar statements and HVDS projects appear in the tariff submissions of the utilities.

### **Gas issue**

In October, it is reported that there would be no supply of gas from the Krishna-Godavari Basin to the state until 2007. This will have impact on the 4 new gas based IPPS, which were expected to start operation in the next two years.

This issue was discussed at a meeting held on November 16, 2004 between ONGC, GAIL and Central Electricity Authority. Director ONGC expressed his surprise at how a large quantity of gas has been allocated to the consumers by GAIL without any commitment from ONGC. GAIL also suggested that Government of Andhra Pradesh and AP Transco should facilitate IPPs to secure commitment of gas supply from RIL. Some infrastructure of pipeline network already exists in the region which can be upgraded to carry additional quantity of the gas whenever the availability of gas is confirmed.

## **2. REGULATORY INTERVENTION**

### Tariff proposals

In November, APTransco along with four other distribution companies submitted the tariff proposals to APERC. As per the proposal, the free power for agriculture sector will continue in Andhra Pradesh for 2005-06. While there is no increase in the tariff rate for the domestic and LT users, the power utility has also suggested a reduction of 4.1% in the tariff for industrial users. The industrial tariff for high tension category has been reduced from the existing Rs. 3.50 per kWh to Rs. 3.40 per kWh in case of 11 kV transformer, Rs. 3.35 per kWh in case of 220 kV transformer and Rs. 3.25 per kWh in case of 132 kV transformer, the sources said.

According to the proposals, the power utilities have estimated a revenue generation of Rs. 9,274 crore for the year 2005-06 as against the revenue requirement of Rs. 11,180 crore, leaving a gap of Rs. 1,906 crore. "The revenue gap is due to meet supplemental power purchase bills and higher depreciation and interest costs on the capital expenditure," the sources said. The sources further said that the revenue gap for the current year is estimated to increase by Rs. 336 crore, more than the subsidy announced by the government. The increase in the revenue gap is due to excessive power bought at higher rates by the earlier government in order to save the standing crop. On the operational front, the distribution licensees have proposed to reduce the transmission and distribution (T&D) losses to 21.38% for the year 2005-06 as against estimated 23.10% in the current year 2004-05.

### Tariff Public Hearings

After receiving objections on the tariff proposals, public hearings were planned to be held in the first week of February. In January last week, the Commission said the public hearing was postponed since the APTransco and the four DISCOMS have asked for time to submit revised proposals. This is after the announcement of the new farm power policy by GoAP in January. The public hearings were held from February 28<sup>th</sup> to March 6<sup>th</sup> at Hyderabad, Warrangal, Vishakapatnam and Tirupathi. Some of the key issues raised by the objectors are given below.

#### APTRANSCO Issues:

- a. PPA review should be speeded up and APTRANSCO should work to reduce power purchase costs
- b. In the light of projected gas shortage, the implementation schedule of 4 new IPP gas projects should be reviewed
- c. The proposal to shift the existing PPAs to DISCOMS was debated. Some felt that it is better to allot the PPAs to APGENCO or form a separate trading company.
- d. Many raised the issue of high tariff to Non Conventional projects. They asked for strict monitoring of their performance. It was also suggested that the burden of NCE tariff should be shared by the wheeling/open access consumers.
- e. Planned closure of Nellore Thermal Station of APGENCO was criticised by many. They felt that proper analysis has not been done before arriving at this decision. They also felt that APGENCO plants and Central projects share are being backed down to benefit private plants.

#### DISCOM Issues

- a. The new farm power policy was by and large supported. There were objections on the ambiguity on certain terms and also on the lack of consultations in framing the policy. The policy announcement looked virtually like a tariff order for agriculture consumers and many felt that the regulatory process was bypassed by the government.
- b. Lack of public debate and transparency in high investment projects like HVDS was criticised.
- c. Many objectors urged APERC to charge the wheeling customers based on provisions of E-Act. This issue is stuck in court cases for the past few years.

The tariff order is expected to be issued in March 2005.

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

#### APGENCO's Gas Projects

APGENCO is planning two gas based projects at Shankarpally and Vemagiri totaling an installed capacity of 3000 MW. In January, it has decided to incorporate new clauses in its memorandum of understanding with Reliance Industries over the proposed supply of gas (14 MCMD) for these new projects. The changes in the MoU include increasing the supply period of gas from 10 to 15 years, a fixed price for gas supplies and importantly the inclusion of a priority clause. This is relevant, considering that Reliance has successfully bid for the supply of gas to two NTPC projects proposed to be set up in Gujarat with an aggregate capacity of 2,600 MW, along with its own 3,000 MW project proposed at Dadri in Uttar Pradesh.

APGENCO has also proposed to set up a big gas power plant with a capacity of between 2,500 MW and 3,000 MW in coastal Andhra.

### Nagarjunasagar Tail pond project

In February, APGENCO has asked the CEA to transfer techno-economic clearance for the 50 MW Nagarjunasagar Tail Pond Dam hydroelectric project to it. Originally, the clearance was given in October 2002 to the erstwhile APSEB. The Nagarjunasagar project envisages the installation of two units of 25 MW each in Guntur district. The project will entail an investment of Rs. 460 crore. The Rural Electrification Corporation has agreed to give financial assistance.

### VTPS Expansion

In November, the German Government has sanctioned a loan of Rs.1,600 crore to the State for constructing a 660 MW unit at Vijayawada Thermal Power Station State-IV (VTPS). A loan agreement was signed between Kreditanstalt fur Wiederaufbau (KfW) of Germany and the Union Government in New Delhi. The loan proposal was pending since 1997.

## **4. PRIVATE SECTOR GENERATION**

### Review of PPAs

In our last issue, we had reported the move by GoAP to review the PPAs with existing IPPs. In October, it is reported that the process of renegotiation of PPAs is apparently heading for an impasse with the developers and the state power utility, APTransco, not showing any signs of relaxing their respective stands. A government committee headed by state finance minister K Rosaiah has so far held meetings with GVK Power and Lanco Kondapalli, two IPPs, apart from holding separate discussions with the APTransco officials on the prospects of reducing the fixed cost. Discussions with the Spectrum Power Corporation, another IPP, now taken over by IDBI are yet to be initiated by the state government.

The IPPs are upset that APTransco has not waited for the negotiations to get over, and has sent fresh notices to the IPPs asking them to reduce the fixed cost on the power. The move to send notices to the IPPs has led to some of them moving the courts. While IPPs are upset over the attitude of APTransco in sending notices even as they are in talks with the committee set up by the state government on the same issue, APTRANSCO is apparently upset that the IPPs have not accepted any of its decisions on the reduction of fixed cost.

This issue figured in the tariff hearings, with many objectors enquiring about the progress of the negotiations, about which no updates were available.

### Spectrum Updates

It is reported in January that Spectrum Power Generation Ltd (SPGL), which is currently controlled and managed by IDBI-led institutions, will seek board's approval to carry out financial restructuring and entering the power trading business. The proposal envisages restructuring of a high-cost debt of Rs. 866.9 crore as on 2002-03, reduction in the present interest rates ranging between 18.5% and 21% and rescheduling of repayment. It is reported that the board has taken a decision to appoint a two-member committee comprising Industrial Finance Corporation of India's (IFCI) nominee RK Chavali and Roll Royce nominee VR Mehta to push through the proposed financial restructuring to make the company viable.

In a more sensational development, it is reported in February that Spectrum Power is up for sale. Both SBI Cap and the lead banker to the company, Industrial Development Bank of India (IDBI), are scouting for a buyer. Earlier, the lenders' plan for the gas-based power project in Kakinada, Andhra Pradesh, was to sell only a 35 % stake in the debt-ridden 208-MW power unit. Now, it looks as though they have decided to sell the entire company because Rolls Royce also wants to exit. Rolls Royce holds a 33 % stake in the project

#### BPL Power

The BPL Ramagundam project suffered enormously due to the delays in approvals and clearances. The final PPA of July 2003 stipulated a time period of one year for completing various conditions to enable disbursement of loan funds by the project lenders. In November, it is reported that BPL Power, the promoters of the 520 MW project have urged Ministry of Power (MoP) to facilitate the extension of coal linkage to the thermal project. It is reported that BPL and the Japanese sponsors, Marubeni Corporation and Electric Development Company have spent about Rs. 3000 Crores on the power project solely funded out of their equity capital.

#### Sumitomo Initiative

In December, it is reported that Sumitomo Corporation of Japan has evinced interest in setting up two gas-based projects for APGenco, at a surprisingly low fixed cost of about 68 paise per unit. Sumitomo has expressed its interest to execute the Vemagiri and Shankarpally gas-based power projects of 1400-MW capacity each with a promise to bring funding from the Japan Bank of International Development (JBIC), according to senior government sources. The total cost of these two power projects, which works out to about Rs. 2.3 crore per MW as proposed by Sumitomo Corp, comes to about Rs. 6,400 crore.

Earlier, the Sumitomo Corp had supplied equipment to the JBIC funded Srisailam Left Bank Power House (SLBPH) beside the gas-based plant owned by the Andhra Pradesh Gas Power Corporation Limited (APGPCL) in the state. The state has agreed to pay 99 paise per unit as fixed cost for the proposed new gas projects like Konaseema, Vemagiri and Gouthami projects along with a 93-paise fixed cost for the GVK extension project. The average fixed cost being paid by APTransco to the existing private gas-based power projects is around Rs. 1.20 paise. The average per MW cost of the Konaseema, Vemagiri and Gouthami projects have been worked out at Rs. 2.8 crore.

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## IV UTTAR PRADESH

### 1. STATE OVERVIEW

#### Distribution Privatisation

In October 2004, the Uttar Pradesh government initiated the process of privatizing the power distribution and generation system in the state. It issued a request for qualification (RQF) and proposal on November 1<sup>st</sup>, 2004 and received a response from 14 companies including two international companies. It is expected that the process will be complete by June 2005. The state government appointed PricewaterhouseCoopers (PwC) as consultant to complete these formalities. PwC is to assess the losses of the Uttar Pradesh Power Corporation (UPPCL), update records, verify the inventories and prepare a roadmap for improving efficiency. It is to be noted that some time back GoUP was looking for a replacement for PwC, as power consultants.

The five DISCOMs have aggregate revenue of Rs. 7,500 crore and they serve over 8.5 million consumers and sell 25,000 MU of power. Out of the total revenue, about Rs. 7,000 crore is from the four distribution companies namely Lucknow Discom (Madhyanchal Vidyut Vitaran Nigam Limited), Agra Discom (Dakshinanchal Vidyut Vitaran Nigam Limited), Meerut Discom (Paschimanchal Vidyut Vitaran Nigam Limited) and Varanasi Discom (Purvanchal Vidyut Vitaran Nigam Limited) and Rs. 500 crore by the urban Discom, Kesco (Kanpur Electricity Supply Company).

#### State finances and free power

In February 2005, the government approached the Planning Commission for the allocation of 1,000 MW additional electricity from the Central Pool, transitional finance of about Rs. 6,000 crore for privatisation of distribution sector, Rs. 2,000 crore for expansion of transmission set-up and Rs. 4,700 crore for electrification of 40,000 villages in the state. At the same time the Uttar Pradesh Government took a decision to refuse free electricity to farmers in the State. The State Transport Minister, said during question hour, on 20<sup>th</sup> February 2005, in the assembly that the State Government was providing a subsidy of Rs. 1000 crore a year to make available low-cost power for farmers. The subsidy was the highest in the country.

#### Employee protests

The employee union (Vidyut Karamchari Sanyukt Sangharsh Samiti) has opposed the government's move to hand over DISCOMs and Anpara "C" project to private parties. They struck work in December 2004 and January 2005, demanding immediate suspension of the state government plans to privatise Anpara C generation unit and of the five distribution companies. Other demands included recruitment to fill the 35,000 vacancies in the power sector, ex-gratia payment to the employees and making a common cadre for all the generation, transmission and distribution companies of the UPPCL. Employee protests have significantly increased this year leading to frequent disruption of power supply in the state. It may be recalled that there had been a slow down in employee protests since the strike in February 2000 (see IPRU Issue 1).

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## 2. REGULATORY INTERVENTION

### Tariff

The UPERC announced a new tariff structure from December 1, 2004. On an average, tariff is 2.7% higher across different categories. The rural billing has been simplified and this reduces the overall tariff. The unmetered agriculture pump sets have been unified and an additional charge of two lamps of 60 watts added to it. This has made the effective rate less than the proposed rate of UPPCL. Metered rural pump sets has been recommended a tariff of Rs. 15/HP/month as fixed charge and Rs. 0.75 per unit as energy charge. All medium and small power consumers will have a rate of Rs. 3.90 per unit instead of Rs. 4.05 per unit.

The tariff revision process for 2005-6 has been set in motion and UPPCL has asked for time extension to file proposals. UPERC has granted time till January 2005 for this.

In February, UPERC has issued tariff orders for NOIDA Power (NPCL). Retail tariffs are to be same as that of UPPCL.

The Central Electricity Regulatory Commission (CERC) is likely to introduce part-day peaking charges for transmission of power, with slabs of 12-hours or even up to six-hours, instead of the full-day charges being levied currently. This could make it cheaper for Uttar Pradesh to source peaking power from outside, since it would have to pay higher transmission charges only for the duration of the day that they use the power, instead of coughing up peaking charges for the entire day.

### DISCOM Losses

The UPERC has decided to engage private companies to assess power loss of the five DISCOMs. This is done as UPERC feels that the actual loss is more than what the DISCOMs /UPPCL is showing it to be. Each DISCOM will be evaluated by one company. The commission invited tenders and by December end 2004, seven companies showed interest. The seven companies are: DESCON, Quantum Fuel Tech, Electricity Research and Development Association (ERDA), SAI, KLG Systems Ltd and Datagen Power systems Ltd. The companies gave their presentation on Dec 28, 2004. UPERC will take a final decision on this by March 2005. Moreover, there is growing concern about UPERC being kept in the dark on the privatization of distribution and generation. The process is being monitored mainly by the State Development Council and the state government.

## 3. STATE AND CENTRAL UTILITIES

### Anpara Generation Project

The UP State Thermal Power Generation Corporation Limited (UPRVUNL) proposes to set up a 1,000 MW (2 X 500 MW) coal based generation plant on build-own-operate-maintain (BOOM) basis at Anpara, in the Sonbhadra district. Termed as Anpara "C", the project would share certain common facilities with the existing Anpara "A" (3 X 210 MW) and Anpara "B" (2 X 500 MW) thermal power stations. These power stations are owned by UPRVUNL. The land and certain statutory clearances are already available and the existing units have coal linkage from northern coal fields. This project would be implemented on 70:30 debt equity ratio.

Bidders were asked to submit their bids by November 1, 2004. As many as 11 companies applied for Request for Qualification, including AES Corporation of US, Hong Kong based CLP Power International, Aditya Birla Group, Torrent, GMR, China Light & Power and Reliance Energy Limited (REL). By 22<sup>nd</sup> January 2005, eight companies were short listed by the government, which included the two international companies, AES and CLP Power International. Other short-listed bidders in the fray include Tata Power, the AV Birla group, Essar, Torrent Power, Reliance and the Lanco-Genting Combine.

Anpara C is the first power project to be bid out to private sector on the basis of the competitive tariff-based bidding guidelines drafted by the Union Power Ministry. As per the guidelines, selection of project developer is expected to be done on the basis of levelised tariff and not on the capital cost basis. Therefore, the bidder quoting the lowest tariff for power generated from the plant will be awarded the contract, instead of the earlier cost-plus based bidding process.

The signing of an agreement with a private company is expected by March end, 2005. As per current plan the project is expected to become operational by 2008. Bids evaluation and PPA process is being handled by Ernst & Young. The developer is expected to get incentives under the UP government power policy 2003. According to the bid document, applicants must have a net-worth of at least Rs. 1,000 crore and they must own or operate power plant(s) of minimum aggregate gross capacity not less than 500 MW, all of which capacity must be in commercial operation as on August 31, 2004. Or else, the applicants must own at least one infrastructure project involving total project cost of Rs. 1,000 crore or more and which must be in commercial operation on August 31 2004.

#### Parichcha Generation Project

Thirty percent the construction of the 2 x220 MW coal fired units at Parichcha was complete, by December 2004. Funds for this project are being provided by Power Finance Corporation (80% of the funds) and state government (20% of the funds). However, construction has since then been halted as the state government is not paying its share of funds, due to which Power Finance Corporation too is not releasing its share.

#### Distribution Privatisation

Taking the privatization of DISCOMS forward, on November 1, 2004 UPPCL issued a request for qualification (RFQ), followed by due diligence and a request for proposal (RFP). It fixed December 1, 2004 as the last date for accepting bids through an advertisement on November 1. The entire transaction is scheduled for completion by the end of this financial year. PWC is helping with the process.

In December 2004, the State government extended the date for the acceptance of bids by another 15 days. Meanwhile, about 15 companies have submitted their Request for Qualification (RFQ). Some of the companies that have shown interest in acquiring majority equity stake in the five DISCOMs are State-run National Thermal Power Corporation (NTPC), CESC, Ahmedabad Electric Company, Essar Power, Reliance Energy Limited, Tata Power Company, Larsen & Toubro and GVK Group. The conditions stipulated in the RFQ states that the bidder is expected to have a net worth greater than Rs. 500 crore and have experience in owning and operating generation plant of 500 MW or more or managing an electricity distribution network with 0.5 million consumers or more.

The privatization bids were scheduled to be discussed from 5th Feb, 2005. By 14<sup>th</sup> Feb 2005, GoUP had short listed five players for taking over the distribution in five major circles of UP. Torrent Group, Reliance Energy Ltd and Tata Power are among the short listed entities.

#### Billing problems

With regard to on-line billing, it is reported that a bill revision racket was detected in Residency Division of Lucknow Distribution Company (LESA). In February 2005, LESA constituted a two member committee to investigate the charges of creation of illegal database of consumers (Basic Consumer Data) since April 2004, where downward revision of bills was made. The data on consumer revenue records at various divisions will be matched with the data on computers of the On-Line Billing Centres.

#### NTPC Rihand expansion

Bharat Heavy Electricals Ltd (BHEL) commissioned the first 500 MW unit of National Thermal Power Corporation's (NTPC) Rihand power plant in UP on 17<sup>th</sup> February 2005. With the commissioning of this unit, the total generating capacity of Rihand station has gone up to 1500 MW. This unit would add 12 MU of electricity to the grid every day, and the second unit is expected to be completed by May 2005. BHEL's scope of work in the project included, design manufacture, supply and installation of two steam generator and turbine generator sets of 500 MW each with associated auxiliaries and control system. The steam generators and turbine generators were built at the company's Trichy and Haridwar plants, while the control systems was manufactured by the Bangalore-based Electronics Division, the release said.

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

#### Reliance Dadri Project

In the ongoing tussle between Reliance Energy (REL) and Reliance Industries (RIL), in December 2004 RIL insisted that the Rs. 10,000-crore Dadri power project was presented to the board as a *fait accompli* when it had met in early 2004 to discuss investment 'opportunities' for the erstwhile BSES (as Reliance Energy was then known) in the power sector. As per RIL, the board then, had merely decided to allocate an aggregate funding of Rs. 5,000 crore but the choice of projects and the terms on which these would be executed was to be cleared by the 'finance committee' of the board. However, the series of public announcements in January 2004, on the Dadri project, only served to render deliberations of the 'finance committee' irrelevant and created a false perception that RIL was already committed to this project.

Meanwhile, the board of RIL has decided to ensure gas supply to the Dhirubhai Ambani Energy City (DAEC) in Uttar Pradesh. The board has also taken a decision to set up a joint group to work out details on the operational and commercial aspects of the project. The meeting also noted that reasonable assistance would be extended to Reliance Energy without affecting RIL's operations and projects. A mechanism for taking approval of the RIL board for all the large projects conceived by group companies is also to be drawn. Reliance Industries said that gas discovered by it in the Krishna-Godavari basin would be able to reach Dadri only in 2008, though the 3,500 MW Dadri power plant was projected to go on stream by 2006. Reliance Industries holds nearly 51 per cent equity stake in Reliance Energy. To source gas from external suppliers could translate to higher costs and delays. REL had claimed the Dadri project would offer one of the cheapest tariffs at below Rs. 2 per unit. However, the entire tariff projections were based on the estimated costs of supplying gas from Reliance's KG basin. With gas supplies from the KG basin now put back by a year to 2008-09, on 20<sup>th</sup> January 2005, Reliance Energy Ltd announced that the Dadri

project will be commissioned by 2008-09 and not 2007-08 and will receive gas from parent company Reliance Industries' KG gas fields. The company, however, indicated that REL might start the project earlier if it ties up gas supplies from another source. REL may have to opt for LNG if the project were to be commissioned on time. However, running the project on LNG would mean higher costs as it would have to include liquefaction, gasification and shipping costs of the fuel. Sources said RIL gas supplies were being delayed primarily as the company was still awaiting right of way for the proposed pipeline.

In December 2004, REL informed the ministry that the Central Electricity Authority had undertaken a study on the off take of its Dadri power project and the international competitive bids for the plant are expected to be finalised by the first quarter of 2005. REL hopes to achieve the financial closure by early 2005 subject to finalisation of project contracts. Meanwhile GOUN officials say that Reliance UP power project may be delayed as the 2235 acre of land acquired by the government for the project could not be transferred to Reliance Energy till December 2004. REL board has also bid for the five distribution companies in UP, in the Government-initiated international bidding process.

#### Other Generation Projects

CLP Power India is expected to develop its project in three modules of 350 MW each, and would source the fuel either from domestic source or from an LNG terminal nearby. The company is in dialogue with Power Trading Corporation for inter-state sale of about 700-750 MW under long-term bilateral contracts.

The promoters of Aditya Birla Group's 1,000 MW project have tied up sale of power to Uttar Pradesh Power Corporation Ltd and others. The company has also requested the inter-institutional group to replace the Rosa project with the new project.

## V MAHARASHTRA

### 1. STATE OVERVIEW

Un-bundling of MSEB in the context of the Electricity Act 2003 provisions was put on hold till December 2004 in light of impending state elections. The deadline was subsequently been extended up to June 2005. Though the state government is giving signals that this time no more extension will be asked for and unbundling will be carried out, there is no transparency about the whole process. GoM / MSEB have not even made public, the report of 'PriceWaterhouseCoopers', consultant appointed for suggesting unbundling scheme. In January 2005, GoM issued notification paving way for un-bundling of MSEB by allowing creation of four companies. But still there is no clarity about exactly how many companies will be created and how asset / liability allocation would be done. Unions and other actors are gearing up to oppose such moves by the GoM. They have initiated district level demonstrations and have announced a 'morcha' during the budget session of the assembly session. It's being said that the government will unbundle MSEB from April 1, 2005, though the government has not announced anything formally as yet.

Apart from this, free power and MSEB's plans to adopt 'single phasing' scheme to segregate three phase agricultural and single phase domestic connections in the rural areas were controversial issues in the state power sector.

#### **Free Power to Agricultural consumers**

As reported in the last update, Maharashtra also followed the AP announcement of giving free power to agriculture and subsequently, the regulatory commission, also approved the scheme but directed GoM to compensate MSEB in cash for lost revenue. After this, GoM compensated MSEB in cash to the tune of Rs. 400 Cr., but, as admitted by the MERC Chairman in subsequent hearings, MSEB paid back to GoM about half of this money in the name of advance repayment of GoM loans. Thus, essentially the spirit of Section 65 of the Electricity Act 03 (which requires government to compensate licensee in advance) has been defeated. In line with GoM decision to provide free power till March 05, GoM again approached MERC for providing subsidy to MSEB for the third quarter (i.e. Oct. to Dec. 05). This time GoM had made adequate provision in the budget (supplementary demand) for providing cash compensation to MSEB and hence, without getting into several issues raised by consumer representatives, MERC allowed GoM and MSEB to give effect to free power for the first quarter of FY 05 also. The state government has made it clear to MERC that it has made a total provision of Rs. 1,212 crore in the budget for 2004-05 for providing subsidy to MSEB and Mula Pravara Co-op Society on account of loss of revenue due to free power.

This decision of providing free power has attracted criticism from many quarters such as World Bank and even some constituents of the ruling combine.

In a related development, public interest litigation has been filed by Vij Grahak Sangh, in the High Court, challenging the decision of the GoM as well as MERC. The honourable high court has made consumer representatives, which appeared before the MERC in this case as party and has also issued notices to GoM to file its say. The case is likely to come up for hearing in coming weeks.

Recent newspaper reports indicate that the government has started re-thinking on this issue and most likely may not continue with the 'free power' scheme after March 05, or the scope of 'free power' may be reduced drastically.

### **Captive power plants at industrial parks**

Taking advantage of the provisions of Electricity Act 03, GoM itself is encouraging captive power generation and has initiated moves for large scale captive power plants dedicated to different industrial areas in the states. Even though any such move is likely to have significant adverse financial impacts on MSEB, the GoM is pushing ahead with this plan. Recently, the GoM called for final bids from Tata Power, Reliance Energy, Wartsila, L&T and BHEL to set up captive power plants at state-owned industrial parks. According to this plan, the private power companies will set up captive generation units at various MIDCs, beginning with Thane-Belapur and Nagpur. Power plant at Thane would be gas fired receiving gas from Dahej-Uran pipeline while the one at Nagpur would be of pithead coal fired type. The proposed projects would generate about 100 to 150 MW. Unfortunately, even though GoM is promoting this plan through Maharashtra Industrial Development Corporation (MIDC), there is no clarity about the exact nature of this scheme in terms of the legal status of this plant, who will own it (MIDC or industries directly) likely cost of power and payment security etc.

### **Green cess to promote non-conventional energy resources**

Maharashtra government has taken a decision to impose green cess of 4 paise per unit on industrial and commercial consumers of public and private utilities including Reliance Energy Ltd. and Tata Power Company, in order to promote non-conventional energy projects in the state. The state government expects an initial annual mobilisation of Rs. 85 crore to Rs. 100 crore. The GoM has received support from Confederation of Indian Industry (CII) and Federation of Indian Industries and Chambers (FIIC). Money collected through this cess will be utilized for development of infrastructure (transmission lines, site preparation etc.) by Maharashtra Energy Development Agency (MEDA) largely for wind power projects.

On the contrary, MERC has questioned this decision as this is equivalent to a mini-tariff hike and has asked MSEB to make necessary submission in this regard.

### **Two new gas power plants in the state**

MSEB has proposed formation of a separate company to undertake power generation projects. The new company, to be formed for gas-based projects, is supposed to look after the expansion of Uran plant from 912 to 1400MW and erection of a new plant of 1000MW at Talegaon near Pune. Gas to Uran Plant is currently supplied solely by GAIL India Ltd. MSEB has now initiated the negotiations with other companies like BPCL, Hazira-Shell etc. as well to get gas at Uran. For supply of gas to Talegaon plant, MSEB is relying on Dahej-Uran pipeline by GAIL and Kakinada-Uran pipeline by Reliance Industries.

## **2. REGULATORY INTERVENTION**

### **Single Phasing and Load Shedding**

Maharashtra has not seen virtually any capacity addition in the last few years and hence, according to MSEB the demand supply gap has risen to about 3000 MW in the evening peak

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hours and about 1800 MW in the day off-peak hours. The average load shedding in the rural areas currently in Maharashtra has increased to over 6 hours/day and that in urban areas including major cities like Pune, Nagpur etc. to about 3 hours/day.

Despite MSEB's claims of 6 hours of load shedding, it has been observed that daily load shedding in rural areas is carried out actually for more than 6 hours. This led to a huge unrest in rural areas especially in rural domestic consumers.

In response to this, MSEB came up with a scheme of "Single Phasing" of the rural distribution system. According to this scheme, the rural households (and all single-phase loads) would be given a single-phase supply through single-phase distribution transformers. For a specified time, there would not be any three-phase supply available for Agricultural pumps, floor mills etc but rural residential consumers would continue to get electricity. In addition to uninterrupted power supply to the rural domestic consumers, flattening of the load curve on account of curtailing the Agricultural demand may also be achieved through this scheme.

About 1,41,000 new single phase distribution transformers on about 3500 rural feeders (11kV) were to be installed for this purpose across the state costing nearly Rs. 560 crore. About 25,000 three-phase distribution transformers that are currently in use would become redundant, at least for the time being.

A petition has been filed in the MERC against this scheme and increased load shedding in the state. Initially, MSEB was reluctant to approach MERC for approval of this huge capital expenditure, but as a result of significant opposition by consumer groups, some MSEB unions and the petition mentioned above, MSEB was forced to seek MERC's formal approval. During the course of this case, MSEB provided significant information about the proposed scheme to MERC and general public. A public hearing as well as technical validation has been completed. During these hearings, many consumer groups etc. opposed this scheme, as there are significant safety and technical issues. Also some consumer groups contended that rather than such ad-hoc short term schemes, MSEB should undertake feeder segregation (separate feeders for agricultural and domestic consumers), which as per MSEB's own estimate costs around Rs. 1500 Cr. and leads to significant network strengthening. MERC's order on this case was issued recently (Dt. 4<sup>th</sup> March 2005). As per the order, MERC does not find any significant merit in this measure, as it is short-term and high cost. Even with this system, for coming few years, a huge demand supply gap would be observed. Further, the T&D losses are going to be much higher than the existing 3-ph system (200% of existing).

In its order, the commission has denied inclusion of the entire cost of this single phasing project in the ARR of MSEB because then, consumers would pay for enabling MSEB to discriminate between them.

However, expenditure only to the extent of the outlay that has already been provided for FY 2005-06 for the replacement of transformers, as if it were normal transformer replacement expenditure, has been allowed to be included in the ARR.

## **Wind Energy**

Subsidies, in the form of huge tax concessions and preferential tariff given to wind power projects in Maharashtra has been a highly controversial issue. A capacity addition of about 750 MW of Wind Power in Maharashtra was envisaged in the 10<sup>th</sup> Plan by MERC through its order

dt. November 24, 2003. For project commissioned after April 1, 2003, MERC had fixed a tariff (power purchase rate) Rs. 3.5 / unit with an annual escalation of 15 paise for the next 13 years. Once this period of 13 years was over, the firms were free to sell power directly to a consumer of their choice with MSEB having no right. This participation was on the first-come-first served basis and MSEB would have to enter into EPAs with all the private wind energy projects, which wish to do so.

In light of the high tariff being given to private wind developers, MSEB found it cost-effective to undertake development of wind projects on its own. To this effect, MSEB came up with a plan of erecting the wind energy projects of 600 MW through a competitive bidding route. MSEB claimed that it would be possible to buy power through such competitive bidding route at a rate much less than MERC determined rate.

During the course of MERC hearing on this issue, MSEB claimed that if they are allowed to adopt such competitive bidding based approach, then there would be a saving of about Rs. 262 Cr. / 100 MW of wind capacity addition (cumulative for 13 years). Also there would be possibility of MSEB having access to low cost generation after 13 years (when all loans are repaid). MSEB pleaded for a time of about only six months to test the validity of such approach by floating competitive bids and not having to enter into EPA at MERC determined rates. MSEB claimed that if it fails to bring down costs then it would immediately enter into EPA with wind developers at MERC determined tariff. Consumer groups such as Prayas, also strongly supported such an approach. But unfortunately, MERC rejected such request and firmly directed MSEB to enter into EPA at MERC determined rates. Though MSEB is free to adopt competitive bidding, with the MERC directive of having to enter into high tariff EPA on first come first serve basis there is little chance of success in bidding route.

### **Supplementary bills**

In a significant step bringing relief to thousands of electricity consumers in Maharashtra, MERC has asked power distributors in the state (viz MSEB, REL, TPC, BEST and Mula-Pravara Co-op Soc.) to refund excess charges collected from consumers under “supplementary bills.” MERC said that such “amended” or “supplementary” bills are not consistent with legal provisions and such bills cannot be issued only on the presumption that the meter reading was incorrect. It added that such presumption is to be supported by testing of the meter, and the test report has to be furnished to the consumer. It has directed the distribution licensees to refund excess amount, if any, to consumers by May 30 2005. The total excess amount to be refunded comes to about Rs. 80 Cr. This was a suo-moto case initiated by MERC, when large number of such cases, in which utilities changed meters and then on the basis of new meter reading data, issued additional bills were brought to its notice.

### **MERC appointments**

The post of MERC Chairman was lying vacant since last few months, and though the selection committee had recommended names of short listed candidates, GoM had not taken any decision. Just at the time of finalization of this update, Dr. Pramod Deo, current member of MERC has been appointed as the Chairman.

## REFERENCES

1. Infraline Email news service, October 2004 to February 2005
2. TERI Newswire: Fortnightly News abstracts on economy, energy and environment, TERI, New Delhi, Volume 10,11 (October 2004 to February 2005)
3. Several News Paper reports and Discussions with people working in the sector.
4. Web site of Ministry of Power: [www.powermin.nic.in](http://www.powermin.nic.in)
5. Web site of Central Electricity Regulatory Commission: [www.cercind.org](http://www.cercind.org)
6. Web site of Central Electricity Authority: [www.cea.nic.in](http://www.cea.nic.in)
7. Website of OERC: [www.orierc.org](http://www.orierc.org)
8. Website of APGENCO: [www.apgenco.com](http://www.apgenco.com)
9. Website of APTRANSCO: [www.aptranscorp.com](http://www.aptranscorp.com)
10. Website of APERC: [www.ercap.org](http://www.ercap.org)
11. Website of UPERC: [www.uperc.org](http://www.uperc.org)
12. Website of MERC: [www.mercindia.com](http://www.mercindia.com)
13. Website of World Bank: [www.worldbank.org.in](http://www.worldbank.org.in)
14. India Power Sector Reforms Update, Issues 1,2,3,4,5,6,7,8,9(October 2001,Jan 2002, May 2002, September 2002, February 2003, September 2003, December 2003,May 2004, September 2004) Prayas, Pune. (Available at [www.prayaspune.org](http://www.prayaspune.org) )
15. The Electricity Act, 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	Central Electricity Supply Company of Orissa Ltd.
CPP	Captive Power Project
CRISIL	Credit Rating Information Service of India Limited
Crore	1,00,00,000
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)

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FEMA	Foreign Exchange Management Act
Financial Year	Indian Financial Year - 1 <sup>st</sup> April to 31 <sup>st</sup> March. Typically represented as FY 98-99 etc.
FIPB	Foreign Investment Promotion Board
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	North-Eastern Electricity Supply Company of Orissa Ltd.
ODA	Overseas Development Agency, UK (now called DFID)
OEFC	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
PTC	Central Power Trading Corporation
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	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	Western Electricity Supply Company of Orissa Ltd.