# Feedback on India Power Reform Update

Prayas, Energy Group has been bringing out India Power Reform Update (IPRU) from October 2001. 10 issues have been brought out so far, at an average of one issue in every 4-5 months. These issues cover power reform updates in India (overview), Orissa, AP, UP and Maharashtra (from Issue 8). These are electronically distributed to activists, civil society groups and power sector professionals and are available at our website, <u>http://prayaspune.org/energy/eng\_pub\_PRU\_Updates.htm</u>.

This survey is to capture your feedback so that we can improve this activity. Please Email the completed form to <u>pradnya@prayaspune.org</u> or post/fax to Pradnya P, Prayas Energy Group, Amrita Clinic, Athawale corner, Karve Road, Pune, India- 411 004. Tel: 020 25420720, Fax: 25420337

Item	Feedback (Tick one)				
	Poor	Satisfactory	Good	V.Good	Excellent
Coverage					
India Coverage					
Orissa coverage					
AP Coverage					
UP Coverage					
Maharashtra Coverage					
General Comments (issues ignored, misrepresented, over/under emphasised, bias etc)					
Presentation					
General Comments – ideas of improvement.					
Periodicity (Once in 4 months)					
General Comments					
Distribution (Put on website after email alert)					
General Comments					
Can you support this effort – contributing/editing/funding etc? If so, how?					
Any other comments/feedback					
Your contact details	Name: Address				
	Email:				

This Feedback form is also available in word format on our website.

# India Power Reforms Update Issue XI – December 2005

(Updates in the period: March 2005 to November 2005)

### INTRODUCTION

India Power sector Reforms Update (IPRU) 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, Ninth and Tenth issues were brought out in January 2002, May 2002, September 2002, February 2003, September 2003, December 2003, May 2004, September 2004 and March 2005, covering the updates in the respective previous period. Editions from the eighth to tenth were brought out under the TNI-Energy project.

This Eleventh issue covers the period March 2005 to November 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 <u>www.prayaspune.org</u>. Please direct your suggestions and comments to Prayas at <u>prayasenergy@vsnl.net</u>.

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## PART I: OVERVIEW OF THE INDIAN POWER SECTOR

## E-Act amendment

Ever since the new UPA government assumed office, discussions on amendments to the E-Act have been in progress. Areas include the power of the regulators versus the government, removing cross subsidy, rural electrification, re-organisation of SEBs etc.

In July it was reported that the Prime Minister's Office has set a deadline of July 15 for getting Cabinet's approval for amendments to the Electricity Act. The amendments under Sections 61, 66, 73, 75, 79, 86, 107 and 108 were suggested in a draft Cabinet note to ensure that the Central Electricity Regulatory Commission (CERCs), state ERCs and Central Electricity Authority acted in conformity to the National Electricity Policy, Tariff Policy and other policy directions of the government.

In October, the power ministry has decided to withdraw these amendments proposed by it to as many as eight sections of the Electricity Act. The ministry had proposed these amendments since it was concerned that the "shall be guided by" clause under these sections could be construed to mean that the policies were only recommendatory, and not mandatory in nature. This move was, however, opposed tooth and nail by not only the regulators but also the finance ministry and the Planning Commission. The Prime Minister's Office (PMO) too said the power ministry may stay away from any tinkering in these sections. The power ministry has agreed to withdraw the proposed amendments, but it is now armed with an opinion from the law ministry which seems to give the ministry an upper hand over the regulators in ensuring that its 'diktat' is adhered to.

In November, it is reported that the Cabinet has given its approval for introduction of the Electricity (Amendment) Bill 2005 in Parliament. As per the proposed amendments, the Central government will share the responsibility for rural electrification and modify the clause on cross subsidy (to have only reduction and not elimination). It also clarifies that police, at the instance of the government or the Electricity Commission or any authorised persons, would be able to investigate cognizable offences under the Act. Electricity workers staged a sit-in outside the Ministry to press for their demands to review provisions relating to cross-subsidy and rural electrification in the Electricity Act 2003.

## PM on power

In his Independence Day speech, Prime Minister said that consumers should pay reasonable price for power. "I have often said that except for the poorest sections of society, giving electricity free of cost to other sections will worsen the financial condition of our electric utilities. We need to get used to paying a reasonable price for electricity just as we do for petroleum products. Through this, we can ensure supply of electricity in the right quantity at the right time and of right quality," Prime Minister Singh said while addressing the nation from the Red Fort on Independence Day.

## National Electricity Plan

National Electricity Plan, prepared by CEA in February, was reported in IPRU Issue 10. In September, it is reported that the MoP has suggested some changes in the plan to make it in line with the National Electricity Policy. This includes having short term frame work of five years and a perspective term of fifteen years; incorporating environmental considerations like rehabilitation etc.

### National Tariff Policy

In the last Issue, we had reported that the National Tariff Policy would be finalised by March 2005. But even when we go to press (November), this crucial policy has not been finalised. Progress is given below:

March: By September, SERCs asked to prepare a road map to eliminate cross subsidy

<u>April:</u> The Government will put up the Power Tariff Policy, before the Union Cabinet in about a couple of weeks time, said the Power Secretary, Mr R.V. Shahi.

May: Reports that MoP is planning to notify the Tariff Policy by the end of May 2005.

<u>July:</u> MoP suggests that States would have to cap the extent of cross-subsidy across their consumer tariffs at 20 % over a five-year period. The Cabinet Committee on Economic Affairs (CCEA) decides to refer the electricity tariff policy to a committee of secretaries. The final version of the policy, criticised for perpetuating the cost-plus tariff setting formula, makes provisions for higher returns for distribution, keeping in mind the higher risks involved in the segment.

<u>September</u>: Committee of Secretaries suggests a fixed formula for calculating cross subsidy surcharge, a move opposed by regulators, who feel that this would reduce competition. It is reported that the Finance Ministry and the Planning Commission have raised objections to the cost-plus basis of the draft tariff policy, saying it would push up the eventual price of power for consumers.

November: Power Secretary says that tariff policy would be announced in a few weeks time.

### National Transmission Plan

In July, the Central Electricity Authority (CEA) has released a draft National Transmission Plan (NTP) with an objective to achieve an inter-regional transmission capacity of 16,450 MW by the end of 10th Plan and about 37,150 MW by the end of 11th Plan. The draft NTP (available at the CEA website) has been prepared covering various transmission plans up to 2011-12, which are based on the updated generation programme. The draft guidelines aim to promote competition in transmission and encourage private investment. The guidelines suggest that certain lines be opened up for private players and others be reserved for the central transmission utility and these lines could be laid through joint ventures. Comments are to be given by October 31 and CEA expects to release final draft of NTP soon.

### **Electricity Rules**

In June, MoP released a 5-page notification on Electricity Rules 2005. This had clarifications on captive power, GRF, trading license (that an inter-state trading licensee can do intra state trading), time limit for filing appeals to Appellate Tribunal (45 days of formation of Tribunal). Details of two key points are given below.

### Captive:

Not less than 26% of the ownership to be held by the captive user(s), and not less than 51% of the aggregate electricity generated in such plant, determined on an annual basis, to be consumed for the captive use.

### GRF issue:

Rules mention that "The distribution licensee shall establish a forum for redressal of grievances of consumers under sub-section (5) of section 42 which shall consist of officers of the licensee". Restricting GRF membership to utility officers was objected to by many consumer groups,

including Prayas. In September, MoP has proposed that this sub-rule may be amended to provide that at least one number of the forum should be from outside in order to add to the credibility of the institution and has requested for comments of the various states on the proposed amendment.

## **Rural Electrification**

### Rajiv Gandhi scheme:

In the budget for FY 2005-06, government has allotted Rs. 11,000 crores for rural electrification. 790 lakh households and 1.25 lakh villages will be electrified in the next five years. This fund will be utilised under the new scheme "Rajiv Gandhi Vidyutikaran Yojana", launched by the Prime Minister in May. The Rajiv Gandhi yojana will be launched in 10 states. Rural Electrification Corporation (REC), a non-banking finance company under the power ministry, would be the implementing agency. Under the scheme, a 33/11 kV substation will be built in each block and at least one distribution transformer in each village. 90% capital subsidy is given and 10% as soft loans at 5% interest. 100% subsidy is provided for electricity connections to Below Poverty Line homes.

### Franchise model:

First reports about the idea of Franchise model for rural electrification came in July. In September, it is reported that the power ministry, in order to increase revenue sustainability, has introduced a franchisee model in the implementation of rural electrification programme. According to the recent decision, all distribution transformers, feeders and substations would be franchised through appropriate contractual arrangements. Franchisees, to be selected through a transparent process, would be accountable for receiving power at distribution transformers, each of them metered. They would also be accountable for billing and collection. In October, it is reported that the Government has put to test 5 variants of the `franchisee model' currently in hamlets in Orissa, Assam, Karnataka, West Bengal and Nagaland for executing rural electrification projects.

In Assam, single point supply through user associations is being tried out, under which inhabitants of a cluster of villages form an association, which handles power distribution from the feeder level onwards. The association, which gets an outlay from the Government for setting up new connections and for the upkeep of the system, is also entrusted with the task of collecting charges from users.

In rural Karnataka, a Gram Vidyut Pratinidhi model is being tried out under which a person is chosen by the villagers, on the lines of a chief executive, and is given the responsibility of overseeing the work of the State-owned utilities.

In West Bengal, in the Sunderbans, an off-grid solution model is being experimented with, under which a cooperative formed by villagers would set up stand-alone power generating systems such as bagasse-fuelled captive units. The cooperative has to collect charges from users , part of which goes into paying back the investments incurred by the Government on setting up the unit.

In Nagaland, a model involving `Village Electricity Management Boards' is being tried out.

### Grid Code

The CERC released the draft Indian Electricity Grid Code on June 15, 2005, inviting comments till July 15. The code has been revised in the light of various provisions of the Electricity Act 2003 and the operational experience gained since February 2000, when the grid code was first

implemented by CERC for inter-state transmission. A new chapter on Inter-Regional Energy Exchange has been added in the draft. Grid code is critical for the coordinated operation of the national grid. Comments on the draft code submitted by Prayas is available at Prayas website.

## Trading

### Status of Trading

As of November, there are 18 licensees for Inter-state trading, as given in the table below:

S.No	Name	Date	Category
1	Adani Exports Ltd, New Delhi	Dec04	F
2	Chhattisgarh Electricity Company Ltd, Raipur	Nov04	А
3	DLF Limited, Gurgaon	Nov04	А
4	GMR Energy Limited, Bangalore	Nov04	А
5	Instinct advertisement & Marketing Pvt. Limited, New Delhi	Sep05	А
6	Jindal Steel & Power Limited, New Delhi	Nov04	А
7	Karam Chand Thapar & Bros. (Coal Sales) Limited, New Delhi	Jan05	А
8	Lanco Electricity Utility Ltd, Hyderabad	Jul04	А
9	MMTC Limited, New Delhi	Jul04	С
10	Maheshwary Ispat Limited, Kolkata	Jul05	А
11	NTPC Vidyut Vyapar Nigam Ltd, New Delhi	Jul04	F
12	PTC India Limited, New Delhi	Jun04	F
13	Reliance Energy Trading Ltd, Mumbai	Jun04	F
14	Special Blasts Limited, Raipur	Jul05	А
15	Subhash Kabini Power Corporation Ltd, Bangalore	May05	А
16	Sumex Organic Pvt. Ltd, Mumbai	Jul04	В
17	Tata Power Trading Company Ltd, Mumbai	Jun04	F
18	Essar Electric Power Development Corporation	Nov05	С

There have been complaints that power traders are charging high trading margins (much higher than 5 paise/unit) and they are not following the license conditions like reporting of trading transactions at their websites. In July, CERC had threatened to cancel power trading licences of companies including Tata Power, Reliance Energy, NTPC Vidyut Vyapar, MMTC Ltd and PTC India, for not complying with the conditions mentioned in their trading licences. Thirteen of the fourteen companies, to which the CERC had given licenses (by then), had been found to be flouting some provisions.

## Trading margin

In September, CERC in its draft CERC (Fixation of Trading Margin) Regulations 2005, has proposed that trading licensee cannot charge trading margin exceeding 2 paise/unit on the electricity traded from the prevailing high of 35-37 paise per unit.

## <u>FDI</u>

In July, it is reported that MoP will submit a draft paper to the commerce ministry with an amendment to the existing Foreign Direct Investment (FDI) clause for electricity trading. At present, a 100 per cent FDI in power trading is allowed but has to be routed through the Foreign Investment Promotion Board (FIPB). The government wants an automatic route for the foreign investment.

### Transmission Corporations stop trading

As per the E-Act provisions, the transmission corporations (TRANSCO) should not be purchasing and selling power. But the state TRANSCOs have been the single buyer of power till June 2005. In June 2005, MoP turned down the requests from Karnataka and Orissa Governments for one year's time beyond June 9, 2005 to separate the transmission functions from trading of electricity in respective States. With this, state TRANSCOs and SEBs have stopped the trading function from June 2005. This function has been given to separate Trading Corporations (as in Orissa) or distributed to DISCOMs (Karnataka, AP).

## **Coal Shortage**

There have been continuous reports on the shortage of coal with many stations reporting coal stock sufficient only for a few days, especially before the monsoon rains.

In March, it is reported that government reducing duty on import of high ash coking coal to 5%. In October, it is reported that the government is turning its attention to promoting acquisition of coal mines abroad to meet the country's growing demand for coal. Australia, Indonesia, Mozambique and Zimbabwe are in the list of countries where mine acquisition is being considered as a viable option. The government would encourage acquisitions of mines by both public and private companies.

The government is also considering allocation of additional coal blocks to state government mining undertakings or power companies. In March, the power ministry along with the central coal and mines department has identified 33 unexploited coal blocks with reserves over 14,440 million tones. The coal so mined can also be supplied to the industrial units and smaller consumers in their respective states. It may be noted that at present, captive mining of coal is allowed only for internal consumption of companies engaged in the production or iron and steel, generation of power or washing of coal obtained from a mine. Excess coal can be sold to Coal India and not to any other consumer. In July, the first allotment has been made to Marudhar Power Pvt Ltd, a wholly owned subsidiary of the Hyderabad-based KSK Ventures Ltd, in Rajasthan for setting up a 150 MW power plant. TPC is reported to have applied for 5 coal blocks. NTPC has decided to construct integrated power plants having linkages to the coal mines which would be owned by the company to bring down the dependence on coal companies.

It is also proposed to increase coal imports with 13.45 million tonnes planned for 2005-6 (current year import figure is around 10 million and the annual requirement of coal for power, including captive is about 330 million). Sources for coal are in Australia, Indonesia and South Africa. In September, it has been reported that a proposal has been moved by the Ministry of Coal which has recommended that the Department of Industrial Policy and Promotion remove the ceiling of 74% FDI on exploration and mining of coal and lignite for captive consumption for all permissible activities and increase it to 100 per cent.

As regarding fixing of coal prices, Central and state power utilities, the Planning Commission and the Central Electricity Authority (CEA) have made a strong case for streamlining coal pricing by setting up a regulator. At present, state-run Coal India Ltd fixes the prices of various grades of coking and non-coking coal.

## Gas Shortage

In September, it is reported that the country has 39 gas based plants with a capacity of about 10000 MW, with approximately equal share for Central, State and Private sectors. By the end of the 10<sup>th</sup> plan (March 2007), it is proposed to have 53 gas based plants with a capacity of 15,000 MW. However, the current plants are not utilised beyond 60% of their capacity, due to gas shortage. Presently the gas requirement of gas based power plants in the country at 90% Plant Load Factor (PLF) is 49.79 MMSCMD. On the other hand, the supply of gas is only 30.70 MMSCMD.

NTPC has been facing gas shortage due to the delay in signing the gas supply agreement with REL for its Kawas and Gandhar power plants in Gujarat. In Andhra Pradesh, the commissioning dates of newly constructed plants are being changed due to shortage of gas (see the AP section of this Issue). Plans for gas pipelines from Iran via Pakistan, Bangladesh and Myanmar have not been finalised.

MoP has requested Ministry of Finance (MoF) for reducing the customs duty on LNG to zero for next three years. In July, MoP has decided against planning any fresh gas-based capacity at price levels above \$ 3-3.5 per million British thermal units (mbtu) of gas. It has also sent a SOS to the petroleum ministry asking them to take stern action against companies including ONGC and Reliance Industries, which have failed to keep their promise to deliver gas.

In November, government has asked developers of gas-based power projects to go slow due to non-availability of gas. More than 2,000 MW private power capacity based on gas, involving investments of close to Rs 8,000 crore, appear to be stranded. Speaking on the fuel shortage, Mr Shahi said: "Almost 1/3rd of the installed gas-based power capacity is today lying idle due to want of gas." The ministry has advised firms to think before setting up new gas-based power plants. The government has asked state governments to even consider operating power plants on naphtha for peak generation.

## Appellate Tribunal

In the last Issue, we had reported on the delay in formation of the Appellate Tribunal (ATE). MoP notified the ATE on July 21, 2005. The Chairperson of the tribunal is Shri Justice Anil Dev Singh, retired Chief Justice of the Rajasthan High Court. The other members are Justice E. Padmanabhan, retired Judge of the Chennai High Court (judicial member) and two other technical members are Shri H.L Bajaj (previously Chairman, CEA) and Shri A.A. Khan (retired. CMD of PFC). The office of the Appellate Tribunal will be located at Core-4, 7th Floor, Scope Complex, Lodhi Road, New Delhi. As of November, it is reported that many cases against SERCs with the High Courts have been transferred to ATE. Unfortunately, there is not much information on the tribunal since there are not many Press releases or not even a website of the tribunal.

## **CEA ranking of distribution utilities**

In June, CEA announced a performance report on the power distribution systems in big cities (more than 8 lakh population) on the basis of the number of trippings per 11 kV feeder and the outage duration per tripping on a monthly basis. For March 2005, Kolkata was the city with the lowest number of trippings per feeder (0.13) and Jabalpur had the lowest outage duration per tripping (6.43 minutes). Surat in Gujarat was second in terms of number of trippings, followed by Mumbai suburbs and Ahmedabad. Coimbatore in Tamil Nadu was second in terms of outage duration in March 2005, followed by Chennai in Tamil Nadu and Mulund in Maharashtra.

Kolkata's CESC Ltd had the lowest, 0.13 trippings per feeder, but ranked 20th in terms of outage duration per tripping (149.59 minutes). Madhya Pradesh Poorvi Kshetra Vidyut Vitaran Company got the top rank with 6.43 minutes of outage per tripping, but was 15th on the basis of average number of trippings per feeder. Delhi DISCOMs made it to the top 10, with NDPL ranking sixth in terms of number of trippings (1.11), followed by BSES Yamuna (1.12) and BSES Rajdhani sharing the tenth position with 1.53 trippings per feeder. As for outage duration, BSES Yamuna, had 124 minutes at 18th position, followed by BSES Rajdhani at 19th position (142 minutes). NDPL was 22nd with 216.66 minutes of outage duration per tripping.

## **Integrated Energy Policy**

In August, it is reported that the integrated energy policy committee headed by Planning Commission member (planning) Kirit Parekh on August 12, 2004 has recently been given further extension up to October 11, 2005. It is also reported that this policy may recommend that 10% of power purchase has to be from non-conventional sources, including hydro. This committee is expected to formulate an integrated energy policy, linked with sustainable development that covers all sources of energy and addresses all aspects including energy security, access and availability, affordability and pricing, efficiency and environment.

### Nuclear Power

In July, the Prime Minister visited USA and the India-US pact on nuclear issues was signed. This could facilitate import of nuclear fuel, which is critical issue in increasing the nuclear power capacity. This is possible if India separates civilian and arms related nuclear facilities and allows external inspection.

Related crucial issues are the involvement of the private sector and FDI in building nuclear power reactors. In the last decade, considerable groundwork was done, with expert committees suggesting certain changes to the Atomic Energy Act, 1962, to facilitate entry of the private sector. This is being debated, with Indian companies like NTPC, TPC and REL as well as few multinationals showing interest in nuclear power generation. In October Planning Commission deputy chairman Montek Singh Ahluwalia has said that India is toying with the idea of allowing foreign direct investment in nuclear power if nuclear nations agree to sell fuel along with technology for new plants.

In October, the Union Cabinet has given clearance for four locations as additional sites for setting Nuclear Power Plants (NPP) in the future. The three sites are in the vicinity of existing power plants, they are Kudankulam in Tamilnadu, Kakrapar in Gujarat, and Rawatbhata in Rajasthan. The fourth is at Jaitapur in Maharashtra. The Government plans more than a three-fold increase in its current installed nuclear capacity of 2,770 MW to 10,000 MW by March 2012.

### BHEL disinvestment

Debate on the disinvestment of public sector major BHEL was on for many months. As late as July, finance minister told the Rajya Sabha that a decision to sell 10% of its shareholding in the company through a public offer has been taken to raise 1600 crores. "The government has decided on an 'offer for sale' of its 10% shareholding in BHEL out of 67.72% stake through book-building process," he said. But this move was opposed by the left parties who stopped attending the UPA-left coordination committee meetings based on this and related issues. In August, it was reported that this is on 'hold' and in August, the Prime Minister has closed the issue in a letter to Smt. Sonia Gandhi saying that the disinvestment plan is off.

### **Railways for open access**

Indian Railways buys around 10000 MU power from SEBs and NTPC at an average tariff of Rs.4.38/unit. In November, it is reported that tenders have been issued in Tamil Nadu and Uttar Pradesh for alternate power suppliers through open access route. If this materialises, there would be significant impact on the finances of many utilities spread across the country.

## Mega Power policy

In November, it is reported that MoP has sought the views of state governments on a proposal to accord mega power project status to projects with an installed capacity of 250 MW. As per the present norms, thermal power project with an installed capacity of 1,000 MW and above and hydel project with 500 MW and above are considered as mega projects. Accordingly, the Government of India offers various duty exemptions and incentives available under the mega project status. The ministry has now proposed to not only drastically reduce the present installed capacity for the mega status but also wants to do away with the differential treatment being adopted with regard to thermal and hydel projects

## Publications, Workshops and other updates

### Report on Demand Side Management

'Demand-Side Management (DSM) in the Electricity Sector, Urgent Need for Regulatory Action and Utility-Driven Programs' is a report prepared by Prayas for the Climate Change and Energy Programme of the World Wide Fund (WWF) for Nature – India, in February 2005. The report notes that energy efficiency is high on the government agenda but we lack the commensurate action. Utility supported Demand Side Management (DSM) for different consumer segments can quickly save tens of thousands of MW in India. DSM can reduce power shortage at much lower cost compared to adding new capacity. This report reviews the experience of DSM, identifies measures for realising the true potential of DSM. The report highlights the key role of the regulatory commissions, their legal mandate to implement low cost solutions to power problems and also recommends urgent actions needed. Report is available at the Prayas website.

## National Workshop on CFL

A national workshop on 'Use of CFL for bulk users and better load management' was held at New Delhi on 6th august 2005. Inaugurated by the Union minister for power, this workshop was conducted by Bureau of Energy Efficiency (BEE), Prayas, Electric Lamp and Component Manufacturers Association of India (ELCOMA), Indian Electrical & Electronics Manufacturers' Association (IEEMA). This was a welcome concerted effort to provide the required thrust for increasing the use of Compact Fluorescent Lamps (CFLs). The Prayas presentation, 'Removing Barriers for Large Scale Penetration of CFLs' highlights the huge potential for CFLs in low consumption, poor consumer category. It also demonstrates that due to low paying capacity and high discount rates, poor consumers from this category (around 140 million) are unlikely to shift to CFLs, and in the process a peak load saving potential from this category, the presentation suggests, among other measures, need to integrate CFLs in the upcoming rural electrification program. This and other presentations are available at the website of BEE. The link is: http://www.bee-

india.nic.in/sidelinks/Useful%20Downloads/Presentation%20seminars/6thAug2005/list.htm

### Websites of Amulya and PMGER

Two useful websites were launched during this reporting period. First is <u>www.amulya-reddy.org.in</u> and has the works of Prof. Amulya Kumar N Reddy. Prof. Reddy is known for his DEFENDUS ((DEvelopment Focused END Use oriented Service directed) approach to energy planning – a development oriented and environmentally sustainable approach. This site was inaugurated in October, at a one-day workshop organised on the occasion of his 75<sup>th</sup> birthday, at the Indian Institute of Science, Bangalore.

The second website is of the People's Monitoring Group on Electricity Regulation (PMGER), Hyderabad, Andhra Pradesh. PMGER has been active in power sector analysis and regulatory intervention in AP from 2000. This website (<u>www.pmger.org</u>) contains the regulatory submissions, presentations and other outputs of the group.

### Prayas report on Distribution Quality of Service

<sup>6</sup>Quality of Service of Distribution Utilities – Need for End to End Commitment' was released by Prayas in October 2005. This report reviews the Quality of Service (QoS) process of Indian distribution utilities, especially in the post Electricity Act scenario. It gives an overview of the QoS process consisting of the Grievance Redressal Forum, Ombudsman and Standards of Performance regulations. As many as 18 states (of the 28) have finalised regulations on grievance forum and 11 states on standards of performance. Details of the QoS process in the state of Andhra Pradesh as a case study is given, followed by a comparative study of 11 states.

While appreciating this step of laying down a system of quantifying, monitoring and providing avenues for consumer intervention in the QoS of the utility, the report makes many suggestions to make this process more effective. These include making the information related to current levels of performance available in the public domain, rigorous monitoring of utility performance and involvement of consumer groups to evolve the best practices. All these are possible only if the utilities and regulatory commissions demonstrate end-to-end commitment in the QoS process and consumer groups build capabilities to make effective interventions.

### Institute for Regulation and Competition

Promoted by Consumer Unity and Trust Society (CUTS), a Rajasthan based consumer group, CUTS institute for Regulation and Competition (CRIC) aims to engage in conducting high-level training and education programmes on Economic Regulation, Competition Policy and Commercial Diplomacy. This initiative has received substantial encouragement and support from the Government of India and the Government of Rajasthan. CRIC plans to begin with short courses and week long seminars by early 2006 and intends starting on a full-scale basis by mid 2006.

## Workshop for NGOs in Chhattisgarh

A 2-day workshop 'Power Sector Restructuring and Consumers: Opportunities and Challenges', was jointly organised by the Chhattisgarh State Electricity Regulatory Commission and Prayas at Raipur on September 2-3, 2005. Participants were NGOs from Chhattisgarh and the objective was to build their capability for regulatory intervention.

### Power Trading & Markets

Power trading and electricity markets are issues being hotly debated in the sector. In April, the department. of Industrial and Management Engineering., IIT Kanpur organised an International Conference on "Power Market Development in India: Reflections from International Experience".

The conference agenda included Power Market Design, Developing a Spot and Forward Market in Electricity, Investment and Risk Management in Competitive Power Markets in Developing Countries, Role of Regulatory Institutions in Competitive Power Markets etc.

In July, the Hyderabad chapter of IEEE (Institute of Electrical and Electronics Engineers) organised a tutorial on Power Trading and Markets. The tutorial was attended by nearly 100 professionals from utilities, regulatory commission, engineering colleges, industry etc. Prayas presentation is available at the website.

## IPE-CIRE Collaboration for training

In November, the Institute of Public Enterprise (IPE), Hyderabad, and the Central Institute for Rural Electrification (CIRE), New Delhi, have signed a memorandum of understanding to collaborate in research, training and consultancy. The MoU would enable the power sector in the country to professionalise its managerial cadre at the junior, middle and senior levels. They have already agreed to start their collaboration by launching programmes in Enterprise Resource Planning (ERP).

## Updates from States

## Delhi tariff hike and rollback

The 10% tariff hike, the public agitation and the roll back has increased the debate on privatised distribution in Delhi. Theft, meter calibration issues, regulatory mechanisms etc have been hotly debated. A brief time line of the tariff hike and roll back is given below:

July: The Delhi Electricity Regulatory Commission (DERC) announced an average 10% hike in power tariff for consumers. The hike, which means an additional Rs 150-Rs 200 in the monthly electricity bill, comes at a time when the Delhiite's faith in private companies is already shaken, what with widespread complaints about faulty metering, maintenance problems and slow response to consumer problems

July-August: Protests in Delhi, including by Residential Welfare Associations over the tariff hike, faulty meters and poor service by utilities.

September: Roll back of tariff. The Delhi Government and private distribution companies – (NDPL of Tata Power and BSES of Reliance Energy) agree to equally share the burden of rolling back the 10 per cent hike in electricity tariff

## SEB unbundling

In June, eight states received extension from the MoP for unbundling of their state electricity boards. These are: Tamil Nadu Electricity Board, Meghalaya State Electricity Board, Himachal Pradesh State Electricity Board, Chhattisgarh State Electricity Board, West Bengal State Electricity Board, Kerala State Electricity Board, Punjab State Electricity Board and Jharkhand State Electricity Board.

In June, the MP government gave full autonomy to the unbundled corporations managing distribution (3 corporations), transmission (1) and generation (1).

In Gujarat, seven new companies formed out of the restructured Gujarat Electricity Board (GEB) took up power generation and transmission in the state from April 1.

The West Bengal government in October appointed PricewaterhouseCoopers (PwC) to draw up a roadmap for the unbundling and corporatisation of WBSEB into separate generation, transmission and distribution companies.

In November, Tamil Nadu has requested for extension for one more year (from December 09) for SEB unbundling and stopping trading function.

S.No.	States	Date	Remarks
1	Assam	9.6.06	Extension obtained only for continuance of trading
			function by SEB
2	Bihar	9.3.06	
3	Chhattisgarh	9.12.05	Requested for further extension upto 9.6.06
4	Himachal Pradesh	9.6.06	
5	Jharkhand	9.3.06	
6	Kerala	9.6.06	
7	Madhya Pradesh	9.6.06	Extension obtained only for continuance of trading
			function by SEB
8	Meghalaya	9.12.05	Requested for further extension upto 9.6.06
9	Punjab	9.6.06	
10	Tamil Nadu	9.6.06	
11	West Bengal	9.6.06	

The list of integrated SEBs with the proposed date for unbundling is below:

### Free power in Punjab, increased subsidy in MP

Punjab followed AP, Maharashtra and Tamil Nadu to provide free power to farmers in September. The Punjab cabinet approved free power for all farmers in the state, reversing a threeand-half-year-old policy. This policy will increase the annual power subsidy bill from Rs 1,100 crore to Rs 1,539 crore.

In September, the Madhya Pradesh government has decided to offer Rs 300-crore power subsidy to various categories of consumers, particularly those belonging to weaker sections of society. The consumers who consume up to 30 units a month will get power at Rs 1.75 per unit. A tariff of Rs 1.20 per unit has also been proposed for farmers against a power supply of up to 300 units per month on meter.

### Open access in States

By November, as many as 11 states (Andhra Pradesh, Haryana, Karnataka, Maharashtra, Punjab, Madhya Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal, and Delhi) have finalised regulations for intra-state open access, by which open access would be introduced from this year, in a phased manner. In October, it is reported that the government has directed the Planning Commission to explore ways of give incentives to state governments to bring in open access before January, 2009. Among other things, this is expected to bring more captive capacity to the grid. As reported in September, India has a total installed capacity of captive power of 18,740 MW of which so far 14,636 MW has been connected to grid.

## No Strikes in Gujarat

In November, the Government of Gujarat has issued order whereby strikes are prohibited in the electricity sector. Strikes were banned in the erstwhile GEB and it has been prohibited in seven corporatised entities of GEB. The government order says, "In exercise of the powers conferred by sub- section 1 of section 3 of the Gujarat Essential Services Maintenance Act, 1972 the

government of Gujarat hereby prohibits strikes in all the employment of the industries which generate electricity for the public or supply, transmit or distribute electricity to the public."

### Revival of DPC

The period between March and November 2005 saw significant progress on restart of LNG based 2184 MW Dabhol CCGT Power plant. Final settlement between all prevailing stakeholders viz. foreign promoters GE and Bechtel, MSEB, GoM, GoI, Indian and foreign FIs could be reached. See the Maharashtra section of this Issue for more details.

## II ORISSA

### **1. STATE OVERVIEW**

#### Thermal Power Policy

This is a follow-up on the report on power from central projects to home states, reported in Issue 10. Present policy of the Government of India provides for 10% extra allocation to home state over and above their entitlement from station and 12% free power from the hydro stations. Further, generation in excess of 80% PLF and the sale of infirm power are governed by CERC regulations for tariff. The scheduling of such power is also done according to CERC regulations, which provide for scheduling as per allocations to various beneficiaries. As an additional concession, in August, the Orissa Government has proposed contribution at the rate of Rs 4 crore per 100 MW per annum towards environment management fund, generation in excess of 80% PLF to be made available to host state at variable cost plus incentive and sale of entire infirm power to host state at variable cost. NTPC, the company to be feel the immediate impact of this, has objected to this move by the Orissa government.

#### Transfer of the Trading Function

As per the E-Act, the transmission and trading functions of GRIDCO was to be separated by June. Orissa had asked for extension of this deadline, which was refused by the central government. In June, a new company Orissa Power Transmission Corporation (OPTCL) has been carved out of GRIDCO to look separately the transmission business. GRIDCO will continue the power trading function - purchase from generating stations and sale to distribution companies.

#### NTPC Talcher

In August, NTPC declared the sixth unit of 3000-MW Talcher Super Thermal Power Plant commercial. The sixth and the final unit of this station was commissioned in February and NTPC has started its operation within the stipulated time of six months .With this achievement, NTPC could make all the six units (500 MW) commercial.

But shortage of coal has been a problem with this station. Coal is supplied to Talcher power plant during April and May 2005 is 75% of the total linkage sanctioned. It is reported that trial operation of 6<sup>th</sup> unit was delayed and the total loss of generation on account of coal shortage in the current year so far has been 396 MU.

### Small hydro plants

In June, it is reported that GoO is proposing 20 mini and micro hydel projects, with a total capacity of 250 MW. These would be operated by private companies and the power generated would be purchased by the government in a buy-back arrangement.

## 2. REGULATORY INTERVENTION

### AES/CESCO

In Issue 10, we had reported the cancellation of the distribution license given to the consortium of AES Corporation and Jyoti Structures to operate CESCO. This was in the OERC order dated 26.2.05, which gave 45 days time for appeal. Since there was no response form AES, in April, OERC issued another order, finally cancelling the license and appointing Shri. Srikant Parikray IAS, (the current CEO of CESCO, appointed by the Government) the Administrator.

## Green Power

In a land mark case, OERC gave a favourable order dated 23.4.05 supporting renewable energy in Orissa. This was based on a petition filed by Greenpeace India Society, Chennai. Greenpeace argued that the contribution of renewable power to Orissa's installed capacity of 2776 MW is nil and this is not an environmentally sustainable approach. It cited experiences from Karnataka (KERC asking distribution licensees to purchase 5-10% energy from renewable), Maharashtra (2-5% proposed), and Gujarat (2-5% proposed) to support their case.

Supporting this argument, OERC ordered that 200 MU should be purchased from renewable sources in 2006-7 depending on the prevalent situation and the unit cost should be less that the costliest thermal generation in the Eastern Region. This would work out to around 2% of the total energy purchase in Orissa.

## Open Access

OERC gave its order on intra-state open access in June 2005. Long term (> 25 years contract) and short term (others) customers are specified and the phasing plan is given. Compared to AP, Orissa has chosen to introduce open access rather slowly, with customers having > 5 MW connected load getting the facility by April 2008 and those with > 1 MW by January 2009.

### ATE Case

RC had given orders on ARR and tariff in March 2005. The 3 REL owned DISCOMS filed a review petition with the RC, which was admitted in July. While admitting the review petitions, the OERC observed that since the review petitions raise tariff related issues, they can be finalized only through a process of public hearing, after the receipt of the ARRs of the licensees by November,2005. Aggrieved by the order passed by OERC, the DISCOMS approached ATE with an appeal.

In a brief judgement dated October 20,2005, the ATE has dismissed the petition, saying that ' we are unable to hold that the Regulatory Commission was wrong in coming to the conclusion that the review petitions to be decided after going through the process of public hearing'. It also made a significant observation on the power of the RC: 'Besides, the fixation of an appropriate date for hearing of a review petition by the commission is a discretionary matter. Normally, the Tribunal does not interfere with the discretionary order passed by a Commission, unless the order is arbitrary or results in miscarriage of justice'.

## 3. PRIVATE SECTOR GENERATION

## Warning to AES and Kalinga projects

In July, the Orissa government on Monday warned US utility giant AES Corp and Kalinga Power Corp that their licences for the respective power projects would be cancelled unless they immediately start project work.

AES Corp in 1996 had signed a power purchase agreement (PPA) with GRIDCO to set up a 2x250 MW coal-fired thermal station at Ib Valley in Orissa's Jharsuguda district. AES had selected the Ib Valley V and VI sites, adjacent to the Ib Valley Thermal Power Station (ITPS) of the Orissa Power Generation Corp (OPGC), for this project.

Kalinga Power Corp, a Bhubaneswar headquartered company, signed a PPA with GRIDCO to set up a 2x250 MW thermal station at Kalinga Nagar Industrial Complex near Dubri in Jajpur district. The project, which was planned taking into account the rush of steel companies to Dubri in early 1990s, could not take off as the proposals did not materialise owing to slump in the steel market.

### CESC, Jindal Steel plans

In July, it is reported that CESC, Kolkata is in talks with the Orissa Government for a 2,000-MW coal power plant around Talcher at a cost of Rs 8,000 crore.

In September, it is reported that the Jindal Steel and Power (JSPL) has revised its contract with the Orissa government to increase the capacity of its proposed steel plant to 6 million tonne a year from 2 million tonne planned originally. Besides, it will also set up a 900 MW captive power plant.

### Hirma revive?

In our previous issues, we have reported on the slow progress of the proposed 3960 MW Hirma project in Jharsuguda district. In June Reliance Energy has announced a plan to enhance the capacity to 12,000 MW at a cost of Rs. 48,000 crore. The plant is proposed to be set up in phases; first phase will be 6 units of 660 MW (~ 4000 MW).

### 4. PRIVATE SECTOR DISTRIBUTION

### REL DISTCOMS and shareholders agreement.

In October, it is reported that the Reliance Energy has refused to renew the shareholders' agreement with the Orissa government after taking over three distribution companies — Nesco, Southco and Wesco. The agreement with the three companies expired on April 1, 2004.

The non-renewal of shareholders' agreement was brought to the notice of the OERC by Sarat Chandra Mohanty, the president of Nikhila Orissa Bidyut Shramik Mahasangh. In September, Mohanty filed a petition before the OERC seeking cancellation of the licence of Reliance Energy.

He said in his petition the company did not invest in the improvement of customer service in the state during the last six-and-a-half years. Sources said REL has not only refused to abide by any agreement but has also informed OERC that it does not come under the commission's purview.

Reliance Energy, which still owes Rs 1,800 crore to GRIDCO in arrears, has not serviced interest on the Rs 400-crore bond pledged to the National Thermal Power Corporation (NTPC). The company has also refused to service the bond, which started maturing on October 1.

Before Reliance Energy took over the management of the three district distribution companies, BSES in 2001 had issued bonds worth Rs 400 crore at a 12.5 per cent interest in favour of GRIDCO to cover its arrear dues. GRIDCO, while securitising its past dues of Rs 1,102 crore to NTPC, had pledged the BSES bonds to NTPC. After taking over the BSES management, Reliance Energy is bound by the shareholders' agreement to service the bonds on time. According to the repayment schedule, redemption was to start from October 1. The bonds will be fully redeemed on October 1, 2007. Although Reliance Energy was supposed to pay Rs. 120 crore (30 per cent redemption) to GRIDCO from October, the company has failed to do so. The Rs 120-crore interest on the bond has also not been cleared.

### AES license/CESCO privatisation plan

As reported in the previous section, OERC has cancelled the distribution license of AES for CESCO.

In October, it is reported that the Orissa government is keen to divest its majority stake in the loss-making company to a private entrepreneur. Tata Power, CESC, AEC- Ahmadabad, NTPC Vidyut Vyapar Nigam Ltd and the Bangalore-based GMR have shown an interest in the company.

OERC has appointed a five-member supervisory committee headed by former OERC chairman D.K. Roy to monitor the functioning of CESCO and complete the process of its divestment. The committee will evaluate the financial and technical bids of the five suitors. The selection process is expected to be complete before March 31.

## III ANDHRA PRADESH

## **1. STATE OVERVIEW**

### Raising funds for power sector

In October, it is reported that the state government is trying different options to raise funds for the sector. The state finance department is expected to come out with orders soon to issue power bonds to raise about Rs 980 crore from the market. The state government has decided to approach the Japan Bank for International Co-operation (JBIC), for Rs 5600 crore funding towards High Voltage Distribution System (HVDS) project. The REC has agreed to extend financial assistance to the tune of Rs 487 crore for electrifying 8,470 village habitations and 25,12,731 rural households in 643 mandals spread over 13 districts of the State.

In September, it was reported that all un-electrified habitations and households in rural areas of the state Andhra Pradesh will get power by the end of March 2008. This Rs 1,736-crore programme is to provide power to 13,000 habitations and 43.36 lakh households that were not covered so far. This will be undertaken as part of the national Rajiv Gandhi project (reported in the India section of this Issue).

### Coal shortage

Central government has been allotting coal blocks to generating companies. As a part of this, The Union coal ministry has allotted the first captive coal mine block in Singareni Collieries (Tadicherla block, estimated to have 50 m tones of coal) ) to APGenco. APGenco had applied for this block to meet the requirements of a 500-MW second thermal unit proposed at Bhupalapalli in Warangal district. Beside this block, APGenco has also bid for the allotment of three more coal blocks, which are part of the open tender route. Of them, two are meant to cater to the requirement of a 500-MW unit proposed at Kothagudem Thermal Power Station (KTPS) in Khammam district and one block is meant for a 1,600-MW thermal power project proposed at the port town of Krishnapatnam in Nellore district

For the power generation at the NTPC - Simhadri power project, NTPC uses imported coal blended with Indian coal at 20:80 ratio.

## Gas Shortage

Shortage of gas supply to the existing and planned gas based stations in AP has been reported in previous issues. Existing stations are being operated at low PLF due to shortage of gas. As reported in October, the Samalkot 200 MW plant of REL has been operating at 64 % PLF due to gas shortage.

Four new gas-based power plants, with about 1500 MW capacity, are likely to be commissioned in Andhra Pradesh during 2005-06. These are Gautami Power Ltd, Konaseema EPS Oakwell Power Ltd, Vemagiri Power Ltd., GVK Extension Project. The details of these projects are given in table below.

Developer	Location	Capacity (MW)	Commissioning Date –	Gas requirement (MMscmd)	
			Gas/Steam	Firm	Fall-back
Gautami Power Ltd	Peddapuram	464	Jul06/Dec06	1.96	0
Konaseema EPS Oakwell Power Ltd	Devarapalli	445	Oct05/Mar06	1.6	0.4
Vemagiri Power Ltd	Vemagiri	370	Oct05/Dec05	1.64	0
GVK Extension	Jegurupadu	220	Dec05	1.1	0
Total		1499		6.3	0.4
Total (Firm + Stand-by)					6.7
GAIL Supply					6.0

It can be seen that commitments do not meet the requirements. Moreover, work on the production and distribution of gas has been slow and reports indicate that there is little possibility of production of any additional gas in the Krishna Godavari Basin (KG Basin) before mid-2008. So GAIL and ONGC are trying hard to search gas for these projects before 2008. As on date, none of these stations are operational. As per the PPA signed by the producers with the state, the government would have to pay close to Re 1 per unit on their generation capacity as fixed cost even if they do not to generate power. This would mean a payment of close to Rs 100 core towards fixed costs from the date of announcement of commercial production to the IPPs every month without even purchasing a single unit from them. This issue is being debated in government and regulatory circles.

In November, at a public hearing, the APERC grilled officials of the Oil and Natural Gas Corporation and the Gas Authority of India Limited for their failure to clearly indicate supply to four upcoming gas-based power projects in the State in spite of the "firm allocation" made to them under gas supply agreements. This hearing has been postponed to December.

## Polavaram Project

The new Congress government has been actively pursuing big irrigation projects in the state and a major one is the Polavaram project. The Polavaram project, named Indira Sagar, is a mega project envisaging the construction of a dam across Godavari river, link Krishna and Godavari rivers, develop a vast irrigation system that would cover 15 out of 23 districts in Andhra Pradesh, and generate 960 MW power at a cost of Rs 13,500 crore. The tenders for the dam and power plant construction came to a close last month after several extensions, and exactly at around the same time the project got Central forest and environmental clearance. This project, expected to be complete in 5 years, has drawn criticism for not handling the environmental issues in a democratic fashion.

## Waiving Surcharge

Considering the comfortable power situation, in November, The Chief Minister directed the power utilities to approach the APERC and seek a one-time waiver of surcharge on electricity dues of domestic consumers. This move is aimed at providing relief to domestic consumers in the

State. It is estimated that the electricity dues from the domestic category amount to Rs 400 crore, of which, Rs 140 crore is the surcharge.

## 2. REGULATORY INTERVENTION

### Tariff order

Tariff process was reported in the last issue. Tariff order was issued in March 2005. There are no major changes in the tariff, except a marginal reduction of Industry tariff and a small increase of the Ferro Alloys tariff. Transmission loss target is 5% and distribution loss 17%. State subsidy remains at 1600 crores. Agriculture tariff is as per the policy announced in January (reported in Issue 10).

Subsequently, in September, after the good monsoon rains, the Chief Minister, has announced that there should be no hike in electricity charges for the entire five-year term of the present Government — till 2009. The decision was taken following the continuing inflows into reservoirs that helped in the large-scale generation of cheaper hydel power, and created substantial scope for improvement in the performance of power utilities. The decision is subject to approval from the APERC.

### Ombudsman

In September, APERC has designated the Director (Law) of the Commission as ex-officio Electricity Ombudsman for the State.

### Cross subsidy order

After circulating a discussion paper and public hearing, in September, APERC gave its order on cross subsidy surcharge that open access consumers need to pay. APERC has used the embedded cost approach to calculate the surcharge. It may be noted that the same approach has been employed by APERC for some years to calculate the amount of cross subsidy. As per this, the surcharge is high - equal to the difference between the current tariff and the cost of supply. Table below is an extract of the cross subsidy surcharge for major consumer categories for the 4 DISCOMs.

Consumer	Cross Subsidy Surcharge – Rs/Unit			
	CPDCL	EPDCL	NPDCL	SPDCL
LT – non-industrial	1.94	2.06	1.20	1.66
LT – Industrial	1.30	1.26	0.21	0.33
HT – Industrial 132 kV	1.49	2.07	1.29	1.50
HT – Industrial 11 kV	1.62	2.06	1.78	1.48
HT – non-industrial	2.61	2.79	2.62	2.42
HT – Railway traction	1.40	1.68	1.17	1.31
HT – Residential colony	0.17	0.51	0.11	0.27

### Norms for purchase of renewable power

As a welcome step to encourage renewable power, in September, APERC has released the norms for procuring renewable power. Every distribution licensee, captive power consumer and open access consumer shall be required to purchase not less than five per cent of their total requirement from co-generation or renewable sources each year during the period 2005-2006 to 2007-2008. 0.5 % shall be kept reserved for procurement of wind-based energy. This renewable power purchase obligation has to be met with from sources within the State. The regulator stated that

whoever fails to comply with renewable power purchase agreement under this order shall be liable for penal action as per Section 142 of the Act. Any penalty imposed shall be passed on to the Non Conventional Energy Development Corporation of AP for promotion of these sources of energy and conservation of electricity.

### Balancing and Settlement code for open access consumers

In August, APERC released a draft balancing and settlement code for accounting the demand and energy to be wheeled. It gives the guidelines for settlement of deviations from the schedule under the first phase of open access that would come into force from September . Code suggests scheduling power to be wheeled on a daily basis with a time block of 15 minutes. The schedule should be given one day in advance and accounts would be settled every month. Deviations in energy generation/drawal by open access consumers will be billed at 1.5 times the energy tariff applicable. If the generator produced excess energy over the scheduled capacity, such excess generation would not be accounted for and would not be entitled for any payment. However, the code provides for banking facility for wind and mini-hydel power generators.

### Distribution Tariff

In October, APERC released a draft regulation on distribution retail tariff and wheeling. Draft proposes the multi-year tariff approach, with a tariff period of five years, but the first control period of three years from 2006-2007 to 2008-2009. The licensees are expected to submit the multi-year annual revenue return (ARR) filings for the control period at least within 90 days of the commencement of first control period, and 120 days in case of subsequent control periods. The licensees have to submit resource plan for the control period covering April 1 of the year preceding the financial year to determine various tariff and other issues. To finalise the tariff determination, licensees shall also submit annual filings. Each year, licensees need to file these annual revenue return (ARR) and tariff structure. The commission may allow the variations in some items on account of factors such as vagaries of nature, changes in laws of land and Government policies, wide market and economic influences. The ARR for first year of the control period shall cover the normal components such as cost of power procurement, return on capital employed, depreciation, taxes on income, cost to serve studies etc. For the subsequent years, the ARR will cover corrections for uncontrollable items and for indexed parameters like inflation.

### Transmission Tariff

In November, APERC released a draft regulation on transmission tariff and invited comments. This is in similar lines as the regulation on distribution tariff, with multi-year tariff approach.

### Intra-state trading

In March, APERC released a draft regulation on trading in AP, 'Regulations for intra-state electricity trader'. Similar to the CERC regulations for Inter-state trader, this regulation gives the financial and technical requirements for granting license. Seven categories of licenses, A to G are suggested based on the volume of energy traded. Category A license is for those who trade less than 5 MU/month and they have a license fee of Rs.50,000/year. Category G can trade greater than 100 MU/month and have a license fee of Rs. 5 lakhs. Trade margin is to be fixed by the RC. Consumer can approach GRF/Ombudsman if they have complaints. This regulation is expected to be finalized by December.

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

### Trading to DISCOMs

As per the provisions of the E-Act, power trading activity in Andhra Pradesh was transferred from APTRANSCO to DISCOMS with effect from June 10. There have been debates on this

subject in government in public circles. The general trend was against such a move and for options like entrusting trading function to APGENCO, having a separate trading company etc. The State government had requested the Centre to consider extending the deadline (for this change) by at least by six months if not a year. But refusing the request, the Centre had said that the mandate applied to all States where Electricity Boards had been restructured.

The existing PPAs with private players were transferred to DISCOMs in proportion to their demand. Thus, the EPDCL gets 16.89 %, SPDCL 22.83 %, CPDCL 43.42 % and NPDCL 16.86%. Contracts on non-conventional sources of power were transferred to respective DISCOMs where the project is located. The retail tariff structure would be same for all four DISCOMs and the quantum of government subsidy adjusted to ensure this.

### NTPC Simhadri

In September, it is reported that NTPC Ltd plans to double the generation capacity at its Simhadri thermal plant by adding another 1,000 MW. At present, NTPC has a 2x500 MW power plant that was commissioned in 2002 at an estimated cost of Rs 4,231 crore. The proposed capacity addition will be entirely dedicated to Andhra Pradesh.

### AP GENCO

Good monsoon rains helped APGENCO to run all its hydro plants to full capacity. This included the Srisailam Left bank project. High hydro generation is expected to bring the tariff down.

AP Genco plans take up the 2 x 800 MW Super Critical Thermal Power Plant at Krishnapatnam in Nellore district. The project is expected to be ready by 2009. In April, it is reported that the financial closure of 2x210 MW Rayalaseema thermal station has been achieved. The two units are likely to be commissioned in July and October 2006. For the Bhoopalapally project, APGenco has received coal linkage and REC has agreed to finance Rs 1,680 crore, which is about 80 per cent of the project cost. This is set for commissioning by October 2008.

## AP TRIPCO

AP Tribal Power Company Ltd (AP TRIPCO) under the GoAP plans to implement mini-hydel power projects in partnership with local tribals. AP TRIPCO has identified 79 potential tribal locations for setting up the projects, with a total power generation capacity of 142.8 MW. It is reported in March that initially, APTRIPCO will concentrate on 10 projects with a capacity of 13.5 MW and costing Rs 69.02 crore. The Central government has sanctioned four such projects. The government will bear 50% of the cost of the projects by providing capital subsidy and the balance will be provided by way of interest-free loan from the Indira Kranti Patham and interest-bearing loans from financial institutions. These four projects are: Metlapale (1.2 MW, 6 crore), Pinjarikonda (1.2 MW, 6 crore), Vetamamidi (1.2 MW, 6 crore) and Lower Sileru (3 MW,13.72 crore).

## 4. PRIVATE SECTOR GENERATION

### Spectrum updates

It was reported in the last Issue that Spectrum Power was up for sale. Sale has not materialised due to many reasons, including not getting the right price. In October, it is reported that the IDBI-led lenders have roped in NM Rothschild as consultants to weigh options for sale of the 208-MW Spectrum Project and its financial restructuring. It may be noted that apart from IDBI-led lenders, which hold 32% equity, Rolls Royce has 32% equity, Bambino Group & Associates 19% and Spectrum technologies USA 17%.

### LANCO MD quits

In October, the Managing Director of Lanco Kondapalli Power, Y Harish Chandra Prasad, (who holds 20% stake in the group) resigned. Both, Lanco Group and Mr Prasad, have called their parting of ways 'amicable'. Mr Prasad spearheaded setting up of this 368 MW, 1100 Crore project at Kondapalli.

### Gautami, Vemagiri Power

The 464 MW dual fuel (gas and HSD) combined cycle plant at Peddapuram in Andhra Pradesh implemented by Gautami Power Ltd is expected to be commissioned by September 2006. The project is located in the Krishna-Godavari basin which is the major source of natural gas. The total cost is Rs 1,450 crore. The proposed GPL power plant has been financed by a mix of equity and debt in the ratio of 30:70. The cost has been appraised by the Power Finance Corporation Limited, which is also the lead in the consortium of 13 lenders to the project. The plant is spread over 259.72 acres and is located just 15 km from Kakinada Port.

The 388 MW, Rs 1,200-crore Vemagiri power plant of the GMR group in Rajahmundry has begun its trial production in November. The actual commercial production will commence in January 2006

### Gas supply problems

This is reported under 'State overview'; see the section - Coal and Gas shortage.

## IV UTTAR PRADESH

## **1. STATE OVERVIEW**

### **Distribution Privatisation**

In May, it was reported that UPPCL has received Request for qualification proposals from eight companies for the privatization of distribution companies. These are being processed and list of short listed bidders is likely to be placed soon before the state cabinet. After take over of the distribution companies in Uttar Pradesh by the private companies. Transit finance needed for all these private distribution companies are estimated at Rs. 12,000 crore for the next five years. The state government feels it can pay half the amount, and for the rest it has sought special grants from the Planning Commission. Transit finance is needed as there will be more losses to these private utilities because of high T & D losses in UP (40%).

In July, it is reported that Reliance Energy Ltd. has applied to the UPERC for grant of distribution license in Noida, Ghaziabad and Meerut.

#### Small Hydro projects

It is reported in September that the State Government has decided to set up smaller power projects at all the major canals in every district. State Government in-principle had granted approval for five such projects to begin with. These include power projects at Dhekwa (Jhansi), Nirgajni, Chittaur, Salawa and Bhowa, which range between 5-30 MW capacity.

#### Rural Electrification

In September, the Ministry of Power (MoP) has asked Government of Uttar Pradesh (GoUP) to slow down its rural electrification programme as the fund required for the programme cannot be met during the Tenth Plan.

To implement projects Rs 3250 Crores will be required by UPPCL within the eighteen month timeframe set for the rural electrification programme. This is impossible since a total of only Rs 5000 crores has been sanctioned for rural electrification during the Tenth Plan and additional fund could be availed only in the Eleventh Plan when an additional allocation of Rs 11000 crores based on the performance of the states is being planned.

MoP has further pointed out that the amount of Rs 640 crores that has already been released to UP under 'Accelerated Electrification of one lakh villages and one crore households', now merged with Rajiv Gandhi Grameen Vidyutikaran Yojana, needs to be utilized in the first instance before any further allocations could be made.

### 2. REGULATORY INTERVENTION

### Tariff Process

Tariff revision process has been inordinately delayed in UP. In the last issue, we had reported NPCL tariff order for 2004-5, issued in February 05. In March, UPERC issued the 2004-5 tariff order for KESCO. UPERC accepted the tariff proposals of KESCO but noted that the performance of KESCO has been dismal. One feature of this tariff order is the reporting of an interesting study carried out by Electrical Research and Development Association (ERDA), Vadodra on the consumer metering/T&D loss of KESCO. This study pointed out that only 50% of the billing is based on metering and 29% of meters are defective. Technical loss is around 8% and commercial loss 46%. The total loss is high at 54% against a RC target of 32%.

UPPCL, the transmission company and the 4 state owned distribution companies had submitted their ARRs in April and tariff proposals for 2005-6 in July 05.

The UP Power Corporation (UPPCL) in its Annual Revenue Requirement (ARR) for 2005-06, submitted to the commission in March, asked for a hike of 12–18 per cent for various categories of consumers. According to UPPCL, the utility expects to mobilise Rs 600 crore more in 2005-06 through revisions of power tariffs. The corporation is of the view the average cost of supply of power is Rs 4.05 per unit while the average selling cost is only Rs. 2.81 per unit. Moreover, the cost of power procurement is likely to go up by 16.87 per cent in two years, while the average hike in power tariffs is just 3 per cent. Even after five years of reform in the power sector, the financial position of the UPPCL remains grim. In 2004-05 cash losses of the UPPCL were Rs 2,761 crore, that too after it received a subsidy of Rs. 1,002 crore from the state government.

There were several rounds of clarifications and in October 2005, after a joint hearing RC has suggested that the utilities (including NPCL and KESCO) should submit tariff proposals for 2005-6 and 2006-7 by November 2005.

### Other Regulations

UPERC has finalised the Electricity Supply Code, which covers all aspects related to new connections, billing and related consumer services. RC has also produced a model PPA for captive, cogeneration and non conventional energy plants in November. Comments have been invited on this 44-page draft. RC has also publicised contact details of the 56 Grievance Forums in the state, which are expected to attend consumer complaints on distribution service.

## 3. STATE AND CENTRAL UTILITIES

### Anpara Generation Project privatisation plans

In July, chief minister Mulayam Singh Yadav has reiterated his resolve to privatise the 1,000 MW Anpara "C" thermal power project. Reliance Energy and Essar Power Ltd are the two major power companies in the race for the project. Yadav said the government was ready to sign fresh agreements with the unions to assure them job security. He said the state government had repeatedly stressed there would be no retrenchment and their salaries and other facilities would be protected.

The UPERC had issued directions to the government on June 15 to mention the common facilities, and how these would be shared between the existing Anpara A & B and the proposed C should be mentioned in the bid documents. The UPERC has further asked the government to reschedule the whole bidding process. But the government had invited the four private parties who had shown interest to visit the facilities on June 29, June 30, and July 1, 2005. The four parties that have shown interest are Reliance Energy Generation Ltd, Lanco Kondapalli Power Pvt Company from Hyderabad, AEC and Torrent Power Ltd Ahmedabad, and Essar Power Ltd, Mumbai. The employees' joint action committee has given a call for lightning strike as soon as the representatives of the Reliance Energy and Essar power visit the plant site.

The successful bidder for the Anpara C thermal project will be given a plot of 80 acres on lease for 30 years at the annual lease rent of Rs 100 per acre. All subsidiaries of the state-run power utility UP Power Corporation Limited, will sign escrow account agreements with the power generator and would purchase the entire 1,000 MW generated by the Anpara C plant.

## NTPC Rihand

In October, NTPC commissioned the second 500 MW unit at the Rihand super thermal power station. This takes the total capacity of the Rihand plant to 2,000 MW.

## 4. PRIVATE GENERATION AND DISTRIBUTION

### Reliance Dadri Project updates

Things are moving ahead with the Reliance Energy's 20,000 crore, 7480 MW gas based project in Dadri, supposed to be the biggest gas power project in the world. In July, it was reported that this upcoming gas-based project in UP will have a second phase, which could cost another Rs 8,000 crore taking its capacity to 7,480 MW from the initially planned 3740 MW. Financial institutions lending to the project have asked the promoters to raise the equity component to 30 % of the project cost, instead of the 10 % equity investment proposed by the company. In August, it is reported that RIL has confirmed gas supply for Dadri power project from the Krishna-Godavari fields from 2009. Environment clearance has come in September. The Cabinet has cleared the Rs 11,000 crore-proposal for setting up a 2,000 hectare-multi-product export zone by Reliance Energy Generation Limited (REGL). Reliance is planning to develop a generation capacity of 1,400 MW in the first stage. The production is expected to start by 2008-09. The company had already agreed to a power sale price of Rs 2 per unit with the Uttar Pradesh government. The Dadri plant, being in an export zone, will have direct tax benefits like exemption from the minimum alternate tax, dividend distribution tax and Customs duty exemption.

## Rosa revival

Status of the Rosa project has been reported in previous issues and there has been no progress for last few years. In October, it is reported that the Uttar Pradesh government is reviving the longpending 600 MW (2 x 284 MW), 3000 crore Rosa Power Project at Shahjahanpur, promoted by the A.V. Birla Group. The power purchase agreement (PPA) for the coal-fired 600 MW Rosa project has been finalised with the Uttar Pradesh Power Corp Ltd, and will be inked after the UP Cabinet gives its nod. The land for the project has been acquired, all approvals including environmental clearance are in place. PPA and other agreements are expected to be signed soon and financial closure expected by March 31, 2006. Rosa Power Supply Company Ltd has requested for the extension of the 2.7 mtpa long-term coal linkage from Ashoka mine in the CCL's North Karanpura coalfields in Jharkhand by December 2005. The project is expected to be commissioned by 2009.

### New Tata Projects

There are reports of Tata Power Company's plans to set up hydro and thermal projects in UP. In July, it is reported that TPC has decided to set up a 600 MW hydro power plant at Shrinagar. The total cost of this project including rehabilitation, land and expenses on building a dam is expected to be around Rs 1,500 crore. It has also been reported that TPC is planning a 1,000 MW thermal plant in Bawana, near Singrauli.

## V MAHARASHTRA

## **1. STATE OVERVIEW**

### Unbundling of MSEB

After extending its decision for about a year, in June 2005, Government of Maharashtra unbundled the Maharashtra State Electricity Board (MSEB) into four companies viz. – MSEB Holding Company Ltd, Maharashtra State Power Generation Company Ltd (MSPGCL), Maharashtra State Electricity Distribution Company Ltd (MSEDCL) and Maharashtra State Electricity Transmission Company Ltd (MSETCL). State's energy minister Mr. Dilip Walse-Patil has been appointed as the chairman of the holding company.

While working on the expansion plans, state government has agreed to assist MSPGCL up to the extent of Rs 300 Cr every year for the next five years. MSPGCL is also planning to create a Rs 418 Cr trust for setting up 1000 MW power through renewable sources over next three years. This fund would be used to finance cogeneration, wind, small hydro and solid-waste plants. MSEDCL has prepared its five-year plan with proposed investment of Rs 11,000 Cr and has envisaged government guarantee for the fund-raising program. It is seeking a loan of Rs 5000 Cr from PFC and REC to upgrade its distribution network by 2010. MSETCL has planned an investment of Rs 5,000 Cr for strengthening its transmission network.

### Free power to Agriculture

The state government has withdrawn free power to agricultural consumers in the state with effect from June 1, 2005.

### Generation capacity addition by MSPGCL

Immediate capacity addition projects envisaged by MSPGCL are thermal stations of 250 MW each at Paras and Parli and a 250 MW pumped storage hydel station at Ghatghar. These projects would be commissioned in 2006-07. In addition to this, the State Government has approved two gas based projects - 1040 MW capacity expansion project at Uran and 1400 MW project at Talegaon near Pune. GAIL would provide gas to these plants through its Dahej-Uran pipeline, which would be commissioned in 2007. MSPGCL is also exploring possibilities of building a 2000 MW power plant at Dabhol for utilizing the unallocated capacity of the LNG terminal, 500 MW Khaparkheda, 2 x 800 MW Dhopave and 2 x 500 MW Bhusawal thermal power projects. However, no concrete plans about this future capacity addition have been submitted to MERC. However, MSEDCL has not submitted its demand forecast for ensuing years to MERC and there is no clarity about the whole process of demand forecasting and capacity addition planning. MSPGCL has also identified two locations for power plants using imported coal - a coastal village Dhopave (2 x 800MW) and Bhusawal (2 x 500 MW). In light of difficulties in getting gas as well as it's cost, it is being said that gas based generation plants have been kept on hold.

### Nuclear power plants in the state

Nuclear Power Corporation (NPC) has planned a nuclear plant of capacity 6000 MW at Jaitapuri in Ratnagiri District (Konkan) of the State in next 5-7 years. The proposed plant will use light enriched uranium (LEU), which will be imported from the US. The project has been approved by the central government and its cost is estimated at about Rs 13000 Cr. The State government has made available nearly 1250 Ha of land for the project.

In September 2005, NPC's Tarapur Atomic Power Plant Unit 4 (TAPP 4) producing 540 MW went into commercial operation 7 months ahead of schedule. This 540 MW unit is country's largest nuclear reactor so far. TAPP 3, also of 540 MW, is expected to be commissioned during June 2006. TAPP 3&4 power would be distributed to Maharashtra, Gujarat, Madhya Pradesh, Chhattisgarh, Goa and the Union Territories of Daman, Diu etc. Maharashtra is entitled to receive 39% of power generated.

## Damage due to torrential rains

This monsoon witnessed torrential rains and floods in all parts of the State especially Mumbai. It caused heavy damage to the distribution and transmission infrastructure in the state resulting into extended supply failures. The total damage was in the range of Rs 20-25 Cr affecting 12 major transmission towers, 5,033 high-tension poles, 5,677 distributions transformers and 14 substations.

## **Cogeneration**

Maharashtra government would be inviting bids for setting up of co-generation projects with total generation capacity of 200 MW on Build, Own, Operate, Transfer (BOOT) basis at 10 sugar cooperative units in the state. These projects, located in western Maharashtra, are expected to resume power generation in 2006-07. MERC has fixed the first year tariff at Rs 3.05 that increases by 2 paise every year. During non-crushing season, the developer is expected to sell the entire power generated from the co-generation project to MSEDCL. In response to this, about 10 co-operative sugar factories (170 MW) have evinced interest in a cogeneration project on BOOT basis.

## Group Captive Power plants in industrial estates

MIDC is planning to facilitate the development of natural gas based group captive power projects each of 100 MW in several major MIDC areas such as Thane, Hinjewadi, Tarapur, Ranjangaon etc. REL is setting up the group captive projects in Thane-Belapur and Butibori-Hingna MIDC area. Cost of generation would be approximately Rs 2.8 to 3.1 per unit.

## 2. REGULATORY PROCESS

## Single Phasing

In response to the petition filed by Maharashtra Veej Grahak Sanghatana, MERC declined to pass on the burden of Rs 500 Cr on consumers through tariff to introduce single phasing for restricting power supply to agricultural consumers. The commission concluded that the scheme is costly and is intended to deny power supply to a particular category of consumers rather than generally increasing the supply. However, it allowed MSEB to implement the scheme only up to the extent of budgetary provision for replacement of transformers in the financial year of 2005-06. Any additional funding may be sought from the state government. Following this, State Government approved the allocation of Rs 500 Cr for the scheme after borrowing the sum from REC. In its order, MERC directed that MSEB should enable Automated Meter Reading (AMR) on every 11kV feeder where single phasing is implemented and make the readings available on the

website. However, this important directive to make the licensee accountable was never followed. Till date, single phasing has been implemented in nearly 4500 villages. However, no data on number of hours of single phasing operation, load relief etc is available.

## Average Billing

In an important step bringing relief to consumers of MSEDCL, MERC has directed the utility to refund the bills collected from consumers under the name of "Average Bills" based on the estimated energy consumption. MERC released this order in response to the petition filed by

Prayas. The order has directed MSEDCL to refund all charges with interest collected though average bills consistently for more than 3 months for a time period of June 2004 to January 2005. Prayas has been pointing out the practice of average billing in MSEDCL since 2000. MERC as well in the subsequent tariff orders directed MSEDCL to stop the practice of average billing. However, MSEDCL did not comply with the Commission's directives; in fact, percentage of average billing is quite high in major urban area such as Pune and industrial, commercial and domestic category. This not only affects the utility's revenue but also proves to be a stumbling block in estimating the accurate energy consumption.

### Load Management Charge

Peak power shortage in the state during last summer (April-May 2005) had risen to about 3,500 MW (more than 25% of peak power demand). Peak demand was about 13,000 MW, however, peak power availability was only 9,500 MW. Such a fierce shortage was mainly because of lack of addition of generation capacity, transmission constraints and large increase in demand.

As a result, MSEB had to carry out heavy load shedding in all parts of the state. Load shedding in all urban areas had reached to a level of 3-4 hours every day and that in rural areas was 8-9 hours. Such a heavy load shedding lead to people's outburst in almost all areas of the state. MSEB offices and employees were attacked in Pune, Nagpur, Amravati etc.

In order to reduce peak demand in the state, in April 2005 MSEB made an application before MERC under section 23 of the E Act 2003 for directing all licensees in the state (including REL, TPC and BEST serving Mumbai consumers). MERC directed several restrictions on electricity usage, including a complete ban on neon signs, advertising billboards and illumination of heritage buildings across the state between 1800 and 2200, including Mumbai from May 1, 2005 till June 30, 2005. MERC also introduced a Load Management Charge of Rs. 1 per unit for May and June 2005. The charge was applicable to the consumers whose consumption is greater than 500 units per month and was on electricity consumed in excess of 80% of the consumption recorded in the corresponding billing months of 2004. For consumers whose consumption was less than 80% as compared to the corresponding period in 2004 will be given a 'Load Management Rebate' of 50 paise per unit. This Charge and Rebate were applicable to all metered consumers. For ToD meter consumers, Charge and Rebate were applicable only to consumption recorded from 1800 hrs to 2200 hrs.

## Power Shortage

Iniquitous allocation of the power shortage in the state gave rise to many interregional and social clashes. Responding to a litigation filed by consumers in Nagpur, Nagpur bench of the high court ordered that load shedding in urban and rural areas should be equal. The decision was challenged in the Supreme Court. The Apex Court decided to leave this issue to MSEB and MERC. Accordingly, MSEB submitted its load shedding principles and protocol to MERC for approval. In the protocol, MSEB suddenly introduced a concept of apportioning of load shedding hours based on ATC losses. Till then, in Maharashtra, the concept of ATC losses was never used. Therefore, data availability and its reliability assumed key importance in subscribing to this approach. Many consumer bodies including Prayas, Mumbai Grahak Panchayat, Akhil Bharatiya Grahak Panchayat etc and individual consumers participated in the public hearings on this issue. In June 2005, the Commission came out with its order on MSEDCL's principles and protocol of load shedding. The Commission segregated MSEDCL's Divisions into 4 groups based on the ATC losses for the Division. Groups with higher ATC losses would suffer from greater load shedding. Every group had three categories – major urban, urban and rural. Taking into account greater dependence on electricity of the urban consumers and owing to their low losses and better commercial efficiency, load shedding hours were organized in the ratio of 1:2:5 respectively for major-urban, urban and rural categories in every group. Load shedding should be such adjusted that maximum load shedding in any Division should be restricted to 8 hours in a day with maximum load shedding at a stretch to be restricted to 4 hours. Moreover, every division of MSEB was applied at least one hour of load shedding every day. Industries in MIDC areas and on express (separate) feeders, however, were considered as non-shedable load and were exempted from the entire exercise.

The demand for power has seen further upsurge since October 2005 due to good monsoon. Additionally, performance of MSPGCL's generation plants has been poor during this year. Many units underwent extended planned and forced outages. This caused the peak power shortage to grow more than 4000 MW. As a result MSEB could not comply with the earlier load shedding protocol and hence has approached MERC for a revision in December 2005. MERC's approval is awaited.

TPC was facing a power shortage in Mumbai of about 150 MW since September. In a bid to meet this demand supply gap, it has contracted 175 MW round the clock power with Jindal Steel in Karnataka. The power would be wheeled from Karnataka to Mumbai through MSETCL's transmission network.

## CII proposal to mitigate Load Shedding in Pune

During a public hearing on principles and protocol of load shedding, Confederation of Indian Industries (CII) proposed to harness the idle captive power in industries around Pune for mitigating load shedding in the city of Pune. The Captive Power Plants (CPPs) would generate about 100 MW (which was the prevailing power shortage in Pune) and consume themselves. This would release 100 MW of power that could be diverted to other consumers in the city so that the city would be exempted from load shedding. The CPPs would be reimbursed the additional cost incurred on account of power generation from their generating sets. This cost would then be collected from Pune consumers as a surcharge for being exempted from Load Shedding. MERC heard various stakeholders on the issue through a public hearing in December 2005. The proposal received a mixed response. While it was welcomed by industrial organizations and few consumer groups such as Mumbai Grahak Panchayat, some consumer groups such as Prayas, Akhil Bharatiya Grahak Panchayat, opposed the proposal. Prayas argued that though the CII proposal was a commendable consumer initiated effort, it left several issues unaddressed. The cost of generation by CPPs was over Rs 10/kWh. This translated to a surcharge of about 60 p/kWh or tariff hike of about 20% for an average domestic consumer for mitigating load shedding of 1-2 hours every day! Secondly, other low cost alternatives for reducing load shedding such as starting 400 MW idle generation capacity at Uran plant (by converting it to liquid fuel facility), incentivising load withdrawal by big consumers, reducing technical and commercial losses etc were not analyzed seriously. MERC order on this issue is awaited.

### Small hydro power projects

In September 2005, GoM announced a policy to develop small hydro projects (upto 25MW) on a 30 year Build, Operate and Transfer (BOT) basis mainly through private sector participation. These projects could either be IPP or CPP. For CPP, the promoters should invest a capital equity of minimum 26% and consume minimum 51% of energy generated on an annual basis.

In the meantime, a tariff proposal for small hydro projects was submitted to MERC by the State Irrigation Department. The proposal has worked out a normative capital cost of the project and detailed generation tariff for next 30 years. Prayas pointed out some serious gaps in the tariff proposal – (i) Very limited sample for benchmarking capital cost of the projects, (ii) same capital cost for all sized projects whereas capital cost for higher capacity projects (say greater than 5 MW) could be much lower, (iii) heavily front loaded tariff giving the promoter no incentive for

operating the plant in later years, (iv) excessive incentive to the promoter for over achieving the normative Capacity Utilitsation Factor (CUF) etc. MERC passed its order in November 2005 and offered a steadily increasing tariff starting at Rs. 2.84/kWh in the first year and an increase of Rs. 0.03 / kWh for subsequent years. It allowed IRR for the promoter of 16%. BOT period was revised to 20 years with a target of 200 MW in the next 5 years.

### Power purchase from Bhandardara Hydroelectric Power Project II

The existing and running Bhandardara II Hydroelectric Project (BHEP II, 34 MW) of Irrigation Department of Government of Maharashtra is privatised. The new promoter, M/s Dodson Lindblom Hydro Power Pvt Ltd (DLHPPL) has proposed power purchase by MSEB for 30 years with a levelised tariff of 4.36 Rs/kWh. The promoter would pay in total Rs 322 Cr as purchase cost to the irrigation department spread over 30 years with an NPV of Rs 92 Cr. In addition to this, the promoter demanded very high R&M and recurring O&M costs. The plant is proposed to be a peaking power station during morning and evening peak hours. However, control over power generation depends solely on construction of Nilwande Dam downstream that would be complete only by 2007 if all schedules were followed. The effective capacity utilisation factor of the project comes only to about 13% making per unit cost of electricity very expensive. If we compare the BHEP II power with a mass scale DSM scheme also providing the same peak relief, BHEP II power turns out to be 18 times costlier than the CFL scheme! Prayas opposed power purchase from this project as it was a very high cost project and other alternatives are available yielding much better results.

## MERC appointments

Mr S. B. Kulkarni has been appointed as the finance member of MERC in September 2005.

## ARR and Tariff Revision

BEST, the municipal undertaking in Mumbai, has proposed no tariff hike in the ensuing financial year.

According to MERC Tariff Regulations 2005, Multi-Year Tariff (MYT) would be implemented in the state after April 1, 2006. However, all utilities in the state expressed some difficulties, mainly in terms of data compilation and requested the Commission to extend the time for submission for first MYT application. So, MERC has extended the start of MYT framework to April 1, 2007. It has asked the utilities to file their preliminary ARRs for the next financial year by December 31, 2005.

## 3. PRIVATE GENERATION

## Restart of Dabhol Power

The period between March and November 2005 saw significant progress on restart of LNG based 2184 MW Dabhol CCGT Power plant. Final settlement between all prevailing stakeholders viz. foreign promoters GE and Bechtel, MSEB, GoM, GoI, Indian and foreign FIs could be reached. The 'known' capital cost of this four-year-old project comes to around US\$ 2.3 billion (Rs 10,000 Cr), which includes the following:

a. Payment of around \$580 million to GE and Bechtel. This includes: (a) US\$ 137 million towards the cost of work done but not paid by DPC as per the claims of GE/ Bechtel; (b) a large sum of US\$ 200 million towards the cost of restarting Phase I and completing the remaining work of Phase II and the LNG terminal; and (c) full payment of the equity claim of US \$ 243 million (comprising US \$ 186 million direct claims and US \$ 57 million through OPIC).

- b. Debt (from Indian sources) of around US \$ 750 million to retire or buy out the foreign debt
- c. Indian debt of around of US\$ 850 million
- d. Other costs of about US \$ 150 million for asset preservation, interest during construction, etc.

Additionally, GoI is going to raise tax-free bonds worth of US\$ 300 million (about Rs 1300 Cr) to be subscribed by the LIC. (For details and Prayas comments on the same, please refer to EPW issue of June 18, 2005, www.epw.org.in)

All stakeholders have removed the arbitrations in national and international courts paving the way for restart of Dabhol Power plant. However, the solution has come at a significant cost to the public money.

Ownership of the plant has been transferred to a joint venture of two state owned entities – NTPC and GAIL, named Ratnagiri Gas and Power Private Ltd (RGPPL). RGPPL has taken over the assets of the defunct Dabhol Power Plant and is working on restart of 740 MW Phase I and completion of 1444 MW Phase II of the project and 5 MMPTA LNG terminal. NTPC, GAIL and MSEB each have put Rs 500 Cr in the project.

There was much debate relating to the tariff of the power plant. Initially, the tariff was estimated at Rs 2.3 per unit. However, this estimation was based on assumption of low rate of the fuel i.e. LNG at US\$ 2.65 per MMBTU. With sharp increase in oil prices in the international market, LNG prices also have shot up and according to the latest news reports LNG was not available below US\$ 7 per MMBTU. It is inevitable that the generation cost is going to be more than Rs 3 per unit. However, there is no clarity about the important aspects of the project which have major bearing on its tariff – (i) Restart cost of the project, (ii) Completion cost of Phase II of the project and LNG terminal and (iii) Availability of fuel (LNG) and its price. Therefore, financial viability of the project in the future is still uncertain.

The entire exercise of Dabhol Power and its resettlement emphatically stresses on the need for making government processes accountable.

### Private Participation in Generation

In March 2005, Maharashtra government notified a new IPP policy. Only the projects with installed capacity greater than 250 MW would be eligible for benefits under the policy. The government proposes to offer 100% exemption from stamp duty and registration charges and a complete waiver in octroi fees for machinery and other equipment for setting up a power generation project. The government land would be made available for the project wherever required at ready reckoner rates. Moreover, the Government has offered buyback guarantee of 2000 MW or 50% of generation for the first five years. (This was done without even consulting MERC). Moreover, government would not levy any tax on the sale of electricity by the IPPs outside the state of Maharashtra. Several private players responded to this new IPP policy. The government inked agreements with eight leading power companies for new generation projects totalling 12,500 MW, with investments of nearly Rs 50,000 Cr. MoUs have been signed for the following projects that are expected to come up in the next five years.

Developer	Capacity MW	Location
Reliance Energy	4,000	Patalganga-Nagothane (3000 MW), Vidarbha (1000 MW)
Tata Power	1, 800	Vile Thermal (imported coal) in Raigad district – received environmental clearance in July 2005 (1000 MW), Trombay (500MW), Hydro 200MW
Essar Power	1,000	
GMR	1,000	
Ispat	3,000	1000 MW at Dolvi and 2000 MW at Bhadravati
Jindal	1,000	Jaigarh (Ratnagiri)
Spectrum Power	500	

However, even after 6 months of signing MoUs, the state government has received DPRs totalling only 4000 MW that include TPC, REL, Ispat and Jindal.

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### **GLOSSARY OF TERMS**

ABT	Availability Based Tariff
ADB	Asian Development Bank
AP	(The Indian state of) Andhra Pradesh
APCPDCL	Central Distribution Company of Andhra Pradesh
APEPDCL	Eastern Distribution Company of Andhra Pradesh
APNPDCL	Northern Distribution Company of Andhra Pradesh
APSPDCL	Southern Distribution Company of Andhra Pradesh
APERC	Andhra Pradesh Electricity Regulatory Commission
APDRP	Accelerated Power Development Programme
APSEB	Andhra Pradesh State Electricity Board
ARR	Annual Revenue Requirement
ATE	Appellate Tribunal for Electricity
BST	Bulk Supply Tariff
CCGT	Combined Cycle Gas Turbine (based power plant)
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CESC	Calcutta Electricity Supply Corporation
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

EUV	Extra High Voltage
EHV	Extra High Voltage
ERC Act	Electricity Regulatory Commissions Act (1998)
FDI	Foreign Direct Investment
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
GRF	Grievance Redressal Forum
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
MoP	Ministry of Power
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)
OECF	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
REL	Reliance Energy Limited
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
TPC	Tata Power Corporation
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.