

## THE MANDATE

The Forum of Regulators (FOR) was constituted vide Notification dated 16<sup>th</sup> February, 2005 in pursuance of the provision under section 166(2) of the Electricity Act, 2003. The Forum consists of Chairperson of Central Electricity Regulatory Commission (CERC) and Chairpersons of State Electricity Regulatory Commissions (SERCs). The Chairperson of CERC is the Chairperson of the Forum. The Central Government has made the following rules for Forum of Regulators.

### Constitution of the Forum. –

- (1) The Forum shall consist of the Chairperson of the Central Commission and Chairpersons of the State Commissions. The Chairperson of the Central Commission shall be the Chairperson of the Forum of Regulators.
- (2) The Secretary to the Central Commission shall be the ex-officio Secretary to the Forum.
- (3) Secretarial assistance to the Forum shall be provided by the Central Commission.
- (4) The headquarter of the Forum will be located at New Delhi.

### Functions of the Forum. –

The Forum shall discharge the following functions, namely:-

- (i) analysis of the tariff orders and other orders of Central Commission and State Commissions and compilation of data arising out of the said orders, highlighting, especially the efficiency improvements of the utilities;
- (ii) harmonization of regulation in power sector;
- (iii) laying of standards of performance of licensees as required under the Act;
- (iv) sharing of information among the members of the Forum on various issues of common interest and also of common approach;
- (v) undertaking research work in-house or through outsourcing on issues relevant to power sector regulation;
- (vi) evolving measures for protection of interest of consumers and promotion of efficiency, economy and competition in power sector; and
- (vii) such other functions as the Central Government may assign to it from time to time. .

### Finances of the Forum.-

- (1) The Central Commission may take necessary financial contributions from the State Commissions for carrying out the activities of the Forum.
- (2) The Central Commission will keep separate accounts for the activities of the Forum.

**MEMBERS  
OF  
FORUM OF REGULATORS (FOR)**  
*During 2005-06*

<b>Sl. No.</b>	<b>Name of ERC</b>	<b>Name</b>
01.	CERC	Shri Ashok Basu
02.	Orissa ERC	Shri D.C. Sahoo
03.	Madhya Pradesh ERC	Shri P.K. Mehrotra
04.	Tamil Nadu ERC	Shri A. Balraj
05.	Uttaranchal ERC	Shri Divakar Dev
06.	West Bengal ERC	Shri S.N. Ghosh
07.	Jharkhand ERC	Shri S.K.F. Kujur
08.	Gurajat ERC	Shri G. Subba Rao
09.	Haryana ERC	Lt. Col. (Retd.) Raghbir Singh
10.	Uttar Pradesh ERC	Shri Vijoy Kumar
11.	Tripura ERC	Shri S.S. Chakraborty
12.	J&K ERC	Shri K.B. Pillai
13.	Chhattisgarh State ERC	Shri S.K. Misra
14.	Andhra Pradesh ERC	Shri K. Swaminathan
15.	Karnataka ERC	Shri K.P. Pandey
16.	Maharashtra ERC	Dr. Pramod Deo
17.	Rajasthan ERC	Shri Shanti Prasad
18.	Bihar ERC	Justice (Retd.) B.N.P. Singh
19.	Kerala State ERC	Shri C. Balakrishnan
20.	Himachal Pradesh ERC	Shri Yogesh Khanna
21.	Punjab State ERC	Shri Jai Singh Gill
22.	Delhi ERC	Shri Berjinder Singh
23.	Meghalaya State ERC	Shri Vinay Kohli
24.	Assam ERC	Shri Pranab Kumar Bora

## THE YEAR IN RETROSPECT

### Interaction with Hon'ble Minister of Power :

An interaction of Chairpersons and Members of all Electricity Regulatory Commissions with the Hon'ble Minister of Power was held on 20<sup>th</sup> – 21<sup>st</sup> April, 2006 at New Delhi. The Central Commission coordinated this meeting in which the Regulators shared their experiences on the functioning of the Regulatory Commissions. The Hon'ble Minister of Power was apprised of the various

significant steps taken, orders/regulations issued by the Regulatory Commissions towards implementation of the provisions of the Electricity Act, 2003. The Regulators also shared the problems being faced by them in discharging their functions as an independent institution. In the two-day long meeting the issues arising out of the Tariff Policy, harnessing of surplus captive generation, rising cost of traded power, and consumer advocacy mechanism were discussed.



## FIRST MEETING ACTIVITIES DURING THE YEAR 2005 – 06

Time of Day (TOD) tariff.

1. The **first meeting** of the FOR was held on 28<sup>th</sup> April, 2005 at India Habitat Centre, New Delhi under the chairmanship of Shri A.K. Basu, Chairperson, CERC.

1.1 The Forum discussed the following issues:-

Follow-up action on the part of the Central Commission and State Commissions, arising out of the National Electricity Policy issued by the Government of India.

The issue as to whether cost of traded power could be regulated.

1.2 Dr. Montek Singh Ahluwalia, Deputy Chairman, Planning Commission interacted with the Regulators during the meeting. During his address, Dr. Ahluwalia emphasized the need for strong and independent Regulators, especially for infusing transparency and accountability in the system. The Electricity Regulators, he underscored, have a complex and difficult role, and have been discharging their responsibilities impartially. There was a need to harmonize their actions and bring about greater degree of uniformity. Deputy Chairman, Planning Commission also appreciated the need for greater



Distribution open access and methodology for computation of surcharge.

financial autonomy and adequate staffing for the Regulatory Commissions, and their distancing from Government, so as to ensure that the



Commissions operate on professional line. He also indicated that the Planning Commission might examine the proposal of providing funds to SERCs/State utilities for conducting studies for evolving baseline data and efficiency improvements. Dr. Ahluwalia indicated that the Planning Commission was reviewing the Regulatory structures existing in the country based on international practices and experiences. The Planning Commission would interact with and obtain inputs from the Electricity Regulators before finalizing their Recommendations.

1.3 During the meeting, the following decisions were taken :-

importance of the issue as and when needed.

About funding of FOR, it was decided that Rs.50,000/- (out of total annual subscription of Rs.1.50 lakhs being contributed by the Regulatory Commissions towards FOIR be diverted to FOR to start with).

## (II) **Deliberations on National Electricity Policy –**

A Group consisting of the Chairpersons of the Electricity Regulatory Commissions of Andhra Pradesh, Gujarat and



## (I) **General Issues –**

It was decided that the Forum would meet at least twice a year. However, more meeting could be organized depending upon the

Maharashtra would deliberate and prepare a paper on “appropriate commercial arrangements required to be instituted between Licensees and the Captive Generators for harnessing of spare capacity

energy from Captive Power Plants”.

The Electricity Grid Code which is already in place in most of the States, would be fine-tuned, wherever necessary and finalized by September, 2005.

Distribution open access regulations, for providing choice to consumers above 1 MW to select their source of supply, which have been finalized or drafted in all States except Delhi, Chhattisgarh, Jammu & Kashmir and Assam will be finalized by June, 2005.

The weighted average avoided cost method was generally indicated by the Regulators as the preferred method for

reduction of cross-subsidy. It was decided that the Regulators would continue to consult all Stakeholders, including the State Governments, while taking decisions in this regard.

The Act requires 100% metering of consumers within two years. SERCs will obtain metering plans from Discoms, and monitor their performance.

Several SERCs have so far introduced Time of Day (TOD) tariff for large consumers. All SERCs would introduce TOD tariff for the eligible categories.

Transmission charges for open access consumers would be determined immediately by all State Commissions.



computation of surcharge for distribution open access.

The Regulators have been vested with the responsibility of gradual

Intra-State Trading Regulations would be finalized by the State Commissions on priority,

wherever these have not been done.

Terms and conditions of Tariff have been finalized or drafted by 15 SERCs, following the principles and methodologies of the Central Commission. All SERCs would complete this exercise in the next 4 months.

Technological upgradation of SLDCs and SCADA for distribution licensees would be effected by June, 2006.

To promote co-generation and generation from renewable sources, some SERCs have determined the minimum percentage of power purchase from such sources by the Discoms. The other SERCs would do so in near future. The SERCs would also consider differential pricing for

sources till competitive bidding is put in place.

To ensure protection of consumer interest, 14 SERCs have already set up Consumer Redressal Forum and appointed Ombudsman. This task would be completed by all SERCs by July, 2005.

### (III) **Cost of Traded Power –**

The issue of Cost of Traded Power was discussed. There were divergent views on the need for fixing ceiling of price of traded power. It was decided that a group consisting of the Chairperson, CERC and Chairpersons of ERCs of Uttar Pradesh, Rajasthan, Tamil Nadu, Orissa and West Bengal, would meet to take a view on the issue.

## **SECOND MEETING**

### **2. The second meeting of the FOR**



procurement of power from such

was held on 03<sup>rd</sup> November, 2005 at India Habitat Centre, New Delhi under



the chairmanship of Shri A.K. Basu, Chairperson, CERC.

2.1 Shri R.V. Shahi, Secretary, Ministry of Power who was invited as a special invitee, stated that two immediate issues confronting the power sector needed attention at the earliest, and requested for discussion on these issues :

- i) Ways and means of implementing Open Access as provided under the Electricity Act, 2003.
- ii) Bringing captive capacity to the grid to partly meet the shortages prevailing in the country.

2.2 Shri R.V. Shahi, Secretary, Ministry of Power expressed satisfaction that most of the State Electricity Regulatory Commissions had already framed regulations for Open Access providing for Open Access to consumers having load of 1 MW and above, much before the deadline stated in the provisions of the Electricity Act, 2003.

The progress on actual operation of Open Access on the ground needed to be monitored.

2.3 The issue of facilitating Open Access to the consumers was discussed in detail in the Forum and following constraints were noted :

- i) High level of cross subsidy surcharges as also various other charges like transmission charge, wheeling charge, load despatch charge etc.
- ii) Non-availability of alternative firm sources of power.
- iii) Obstruction created by the state utilities on the plea of non-availability of transmission capacities.
- iv) Apprehension of State Government that provision for Open Access will lead to higher subsidy burdens on the State Government or tariff to





small consumers will have to be raised.

- v) Apprehension that the stipulation for determining the surcharge “to meet the requirements of current level of cross-subsidy” may lead to high levels of surcharge.

2.4 Secretary, Ministry of Power stated that the fact that the supply market was constrained was well known and therefore there was no possibility of large amount of load going out of the distribution companies. However, efforts must be made to ensure that the Open Access was facilitated by way of promotional regulations. He further stated that if all the charges were applied on the basis of total cost, the Open Access might never succeed. Therefore, there appeared to be a case for applying some of the charges e.g. transmission and distribution on marginal cost principles.

2.5 After threadbare discussion, the Chairperson of the Forum of Regulators suggested that a Group might be constituted to go into the whole gamut of issues and suggest measures to facilitate Open Access. He further stated that since Forum of Regulators had already recommended the Avoided Cost method for calculation of cross subsidy surcharge, the Group might look at the other charges and recommend suitable measures.

2.6 The issue of bringing captive generation to the grid was also discussed. Secretary, Ministry of Power briefed the Forum about the recent study conducted by Central Electricity Authority on the issue. According to the

study the captive capacity in the country was about 41000 MW, out of which 23000 MW consist of captive of 1 MW and above. The study also suggested that many of these captive power stations were connected to the State grid and it was possible to tap this resource to meet the shortages. The issue was to harmonise the expectation of the offtaker (availability of power at cheap cost) and the owner of the captive (supply to grid for financial gain). Secretary, Ministry of Power further referred to the National Electricity Policy which inter alia called upon all stakeholders to make efforts to bring the captive capacity to the grid.

2.7 The State Electricity Regulatory Commissions brought out the following important issues for review by the Ministry of Power:

- (i) It was brought out that the formula suggested in the draft Tariff Policy would lead to negative rates in some States and very high rates in others. It was felt that it was neither desirable nor practicable to lay down a uniform formula in a Central Policy document, and the formulation should be left to the SERCs.
- (ii) The issue of rules regarding constitution of Grievances Redressal Forum by utilities under the Electricity Act, 2003 was brought to the notice of Secretary, Ministry of Power. According to the rule framed by Ministry of Power, the Grievances Redressal machinery is to be manned by officers of utilities only. The State Electricity Regulatory

Commissions were of considered opinion that such machinery would be totally ineffective and therefore, there was need to induct some outsiders so that this machinery was neutral.

Secretary, Ministry of Power stated that suggestions were received in this regard and the Ministry was in the process of issuing an amendment to the rules. In the meanwhile the forum for redressal of consumer grievances notified by regulators with outside members might continue to function.

Chairperson, FOR said that Section 42(5) of the Electricity Act authorized the SERCs to specify the guidelines for establishing the Consumer Redressal Forums. The rule making power of the Central Government did not cover this subject. Hence, the matter should be left to the jurisdiction of the SERCs.

- (iii) Chairperson, MPERC stated that though the State Electricity Boards had been unbundled this remained on paper because the revenue collected by the distribution companies had to be deposited with holding company of State Electricity Board, which frustrated the purpose of unbundling. He, therefore, suggested suitable guidelines be issued to the States so that power sector reform could be implemented effectively.

## **FOR GROUP – MEETINGS AND RECOMMENDATIONS**

### **3. FOR Group on Open Access in Distribution and Harnessing of Surplus Captive Generation :**

3.1 In the Second Meeting of the Forum of Regulators (FOR) a Group was constituted consisting of Chairpersons/Members of GERC, KERC, CSERC, APERC, DERC, OERC, RERC, HERC and special invitees from Ministry of Power and CEA, to recommend measures for facilitating open access in distribution and harnessing surplus captive generation in the country. The Group in its meeting held on 16<sup>th</sup> and 17<sup>th</sup> November, 2005, noted the need for balancing the interest of licensee and open access consumers in view of universal service obligation cast on the licensee, which includes supply to agriculture and domestic consumers which is presently at subsidized rates. In order to achieve these objectives, the Group made the following specific recommendations :-

- Cross subsidy surcharge and other charges should be so fixed by the Regulatory Commissions as to provide some economic incentive to the consumers to avail open access, in order that the provision of the Act about Open Access are operationalised.
- At the same time, the procedure for grant of open access should

- be simple enough to encourage the consumer to exercise his choice. Section 42 of the Act enables the consumer to exercise his right to use the network of the incumbent distribution licensee without discrimination. Open Access regime introduced by the Electricity Regulatory Commissions should be such as not to require separate application for use of the network.
- In order to facilitate availability of power for potential open access consumers, the Group recommended that all future generation capacity need not be fully locked in long term PPAs. As recommended in the National Electricity Policy, 15-20% of the future capacity could be kept out of long term PPAs so that it is available to open access consumers or in the market.
  - In order to encourage sale of surplus power of the captive generators to the grid/discom, the Group recommended that the SERCs should allow recovery of some portion of fixed cost in addition to the variable cost of captive generation. The Group was of the view that the captive generators may offer their surplus power on the basis of a firm schedule. Any deviation with respect to the above schedule should also be financially settled keeping in view the UI charges. Infirm power from CPP should also be considered for purchase.
  - Benchmark tariff for generators using different fuels may be indicated by the Appropriate Commission for purchase of power from CPP of up to 15 MW plant size.
  - The Group also felt that there should be no penalty for reduction of contract demand by any captive plant.
  - There was detailed discussion on the various charges the captive plants are required to pay, such as the contract demand charges, parallel operational charges/grid support charges, minimum demand guarantee charges, back-up charges, etc. The Group felt that the State Commission should endeavour to rationalize various charges and as far as practicable club them under a single charge. Till such time intra-State ABT is introduced, grid support charges/parallel operational charges and other charges could be clubbed, to the extent practicable, into one charge based on actual drawl of energy by the captive power plant. Once intra-State ABT is introduced and special energy meters are installed for the captive power plant, there may not be any rationale for levying some of the existing charges.
  - For the purpose of emergency drawl of energy from the grid by an open access consumer the charges should, as far as possible, relate to the period of such drawl and energy drawn.



- For computation of wheeling charges and losses, the Group recommended the following methodology :-
  - The wheeling charges and transmission charges should be applied for relevant voltage level.
  - Only technical losses should be applied on the basis of relevant voltage level.
  - Losses should be applied in kind, i.e., the drawl schedule of the Open Access Consumer shall be the injection schedule adjusted for losses.
- The Group felt that the reactive energy charges from the open access consumers or captive plant owners may be levied by the licensee of the area at par with other users.
- Wheeling and transmission charges should be reasonable as also the scheduling and UI accounting charges so that open access is facilitated.
- The Group was of the view that the Electricity Act, 2003 provides for universal service obligation for distribution licensee. Therefore, an open access consumer has also the right to comeback to the licensee of his area of supply as per the normal procedure and on payment of charges applicable to any new consumer of his category.

3.2. The above recommendations, especially with reference to Captive Generation were deliberated further in a meeting on 18<sup>th</sup> January, 2006 under the Chairmanship of Shri A.K. Basu, Chairperson CERC/FOR. The **final recommendations** on harnessing of surplus **captive generation**, as emerged in the meeting are as under :

SERCs should carry out an exercise to figure out the total installed captive generation capacity in their respective States, the extent of surplus captive generation for sale and the type of fuel used for such generation. Based on these findings, they should identify availability of firm and infirm captive generation separately.

Stand alone captive plants, which were not connected to the grid should be encouraged to have connectivity with the grid. Shri Bhanu Bhushan, Member, CERC explained that connection to the grid was not as complicated as sometimes made out and did not require large expenditure.

Shri Bhanu Bhushan, Member, CERC explained that surplus power of captive generation could be bought under UI regime by putting Special Energy Meters even before the intra-State ABT had been implemented.

Pricing for firm and infirm surplus captive generation should be different :

[Firm Supply –](#)

- SERCs should encourage the distribution licensees to procure firm committed supply from captive generation and determine the price for purchase of such firm supply based on hours of supply.

- The prices could be differentiated for peak and off peak supply and the tariff could include variable cost of generation and reasonable compensation for getting capacity charges. Benchmark tariff for generators using different fuels might also be indicated by the SERCs for purchase of power from CPP up to 15 MW plant size.

- Alternatively, the SERCs might consider fixing the maximum and minimum ceiling price for such purchase in exercise of the powers under Proviso to section 62 (a) of the Electricity Act, 2003.

- SERCs might also choose to encourage the distribution licensees to procure such firm supply through competitive bidding. Ideally, bids could be invited on a composite tariff basis (instead of two part tariff basis). In the event of the price determined through bidding process, the SERCs might adopt such price as mandated in section 63 of the Act.

- Firm supplies contracted should be scheduled as per the merit order dispatch and deviation from the schedule, if any, should be financially settled through Unscheduled Interchange (UI) mechanism.

#### Infirm Supply –

- SERCs should also encourage their distribution licensees to tap infirm supply from Captive Power Plant. Captive generators with infirm supply should be allowed to inject into the grid under the UI mechanism and the price of such infirm supply should be linked to frequency linked UI rates at the time of injection.

- As per the provision of the Electricity Act, 2003, surplus power from Captive Power Plant could also be supplied directly to a consumer if open access was allowed to such consumer by the SERCs. Once such open access was allowed to a consumer, the tariff for such sale/supply was not subject to Regulatory approval. However, to facilitate and operationalise such transactions, proper metering arrangements should be made. Special Energy Meters (SEMs) needed to be installed at Captive Power Plant as well as open access consumer end.

#### Wheeling related issues :

- In cases of third party sale by the CPP, a Tripartite Energy Transmission and Wheeling Agreement involving buyers, sellers and licensee should be signed.
- Wheeling charges and other terms and conditions for implementation should be determined in advance by the respective State Commission, duly ensuring that the charges were reasonable and fair.
- The consumers/customers having Captive Power Plant should be allowed to reduce their contract demand at any time and to any extent they consider necessary and that there should be no penalty for such reduction of contract demand.
- Shri Bhanu Bhushan, Member, CERC explained that the problems stated to be caused by grid connected captive plants like phase imbalance, load spikes, harmonics etc. were really those created by the associated industry (and not by captive generation). These were sometimes being exaggerated. Our grids are now strong enough to absorb the effects of these disturbances. It was, therefore, generally felt that there was little justification for levy of Parallel Operation Charges/Grid Support Charges. SERCs should, therefore, ensure that the parallel operational charges/grid support charges were as low as possible.
- There should be no minimum guarantee charges.
- Where wheeling is involved (for own use or for third-party sale), the following charges could be levied, namely, fixed charges for connection, SLDC charges, reactive energy charges, transmission/wheeling charges.
- For start up/standby, SERCs should fix the tariff upfront. These charges should be reasonable and not exceed the charges fixed for temporary connection.

#### Billing and Payment :

- For firm supply from the CPP, an Energy Purchase Agreement should be signed between the licensee and the CPP. A Letter of Credit (LC) in favour of the CPP for an amount equivalent to average monthly bill might be opened by the distribution licensee. The distribution licensee should raise the bill after accounting for the power purchase from the CPP, at the end of each monthly billing cycle. In case the distribution licensee needed to make the payment to the CPP, this should be done after adjusting charges payable in respect of the energy consumed by the CPP owner or other charges due to the distribution licensee.



- For infirm supply also, an agreement should be signed between the distribution licensee and the CPP to guarantee of payment of UI charges due to the CPP for injection of power.

Issues arising out of the GOI Rules dated 08.06.2005 stipulating requirement of captive generating plant were also discussed and it was recommended that the Chief Electrical Inspector should ensure compliance with the said rules and report to Regulatory Commissions. Accounting should be monitored on quarterly basis so that corrective measures, if required, could be taken in time.

#### **Study on Developing a Regulatory Information Management System (RIMS)**

4. The Forum of Regulators (FOR) has commissioned a study for developing Regulatory Information Management System (RIMS) which would enable the Regulatory Commissions to collect the desired and relevant data for decision-making. The need for the study was felt to address the problems of 'incomplete information' and 'asymmetry of information' being faced by the Regulatory Commission.

4.1. This study seeks to achieve the following objectives:

- (a) To develop a management information system that would enable the regulators to improve the quality of the regulatory process and

decision-making process, and provide authentic data base on power sector performance in the country. In particular, the Regulatory Information Management System (RIMS) will:-

- (I) provide **format** for obtaining required information from the utilities for use by the regulators during the regulatory process, which would include Regulatory Accounting and non-Accounting Framework;
  - (II) provide authentic data on power sector performance state wise, in the country based on **uniformly agreed key performance indicators (KPI)** covering the areas viz., Quality of Service, Tariff/Financial Issues and Policy, Strategy and New Initiatives; and
  - (III) aid the electricity regulators in monitoring and benchmarking the performances of the regulated entities by defining standard definitions of the various benchmark parameters, e.g. Aggregate Technical and Commercial (AT&C) loss, receivable, transmission losses, etc.
- (b) RIMS would be so designed as to minimize the problem of asymmetry in information during the regulatory process.
- 4.2. M/s. KPMG Advisory Services Private Limited has been engaged as Consultant to conduct the study.

## ACHIEVEMENTS DURING THE YEAR 2005-06

### Achievements of CERC

#### IMPORTANT ORDERS AND REGULATIONS:

##### 1.0. The Indian Electricity Grid Code (IEGC)

1.1 The revised Indian Electricity Grid Code (IEGC) issued by CERC came into force w.e.f. April 1, 2006. The Grid Code was finalized by the Commission after wide consultation with the stakeholders. The draft Code was published on web in July, 2005 and 22 stakeholders including CEA, Power Grid, NTPC, NHPC and numbers of SEBs and SERCs had given their comments. The Grid Code was revised in light of various provisions of Electricity Act, 2003. The salient features of revised Grid Code are given below:

- The IEGC brings together a single set of technical rules, encompassing all the utilities connected to or using the Inter-State Transmission System (ISTS) and provides the following:

Documentation of the principles and procedures which define the relationship between the various users of the Inter-State Transmission System as well as the Regional and State Load Despatch Centres.

Facilitation of the operation, maintenance, development and planning of economic and reliable Regional Grid.

Facilitation for beneficial trading of electricity by defining a common basis of operation of the Inter-State Transmission System applicable to all the users.

- A new chapter on Inter-Regional Energy Exchanges has been added with a view to enhance the grid security and energy balancing among the five electrical regions in the country.
- The Regional Power Committees shall also have representations from IPPs and electricity traders in addition to generating, transmission and distribution utilities, the CEA and Regional Load Despatch Centres.
- With the improvement in frequency regime after implementation of Availability Based Tariff (ABT) in all regions in the country, it has become possible to introduce Free Governor Mode of Operation (FGMO) of generating units which automatically corrects the frequency

fluctuations. However, the generators have shown certain difficulties and to overcome them, an expert team involving CEA has been constituted. The team is visiting various power stations in the country and testing various control models for FGMO implementation. The Commission shall separately announce the timetable for implementation of Free Governor Mode of Operation in the country.

- In order to improve grid voltages, the revised Grid Code proposes to apply reactive energy charges @ 5 paise per unit of reactive power on power flows on all inter-State transmission lines. The rate shall be escalated by 5 per cent every year thereafter.
- Reorganization of the State Electricity Boards (SEBs) would lead to formation of a large number of independent entities (generating companies, transmission licensees and distribution licensees) in each State and consequently a very large number of such intra-State entities in each region. The Grid Code provides that the operation of all entities within the State would be coordinated by the concerned State Load Despatch Centre (SLDC), who in turn would coordinate with Regional Load Despatch Centre (RLDC) on real time basis.
- In order to ensure clear chain of accountability, each State as a whole shall be treated as single entity in the regional grid for the purpose of:

Allocations from Inter State  
Generating Station (ISGS)

Daily scheduling and  
despatch.

Accounting of unscheduled  
interchange (UI)

Accounting of reactive  
energy.

1.2 The Grid Code covers whole gamut of activities ranging from transmission planning to day to day scheduling. The various provisions related to planning of inter State transmission, connection conditions, system security aspects, outage planning for generation and transmission, emergency procedures for grid restoration etc., have been retained.

1.3 As per the Electricity Act, 2003, every State Electricity Regulatory Commission is required to issue a State Grid Code consistent with the Grid Code specified by the CERC. As such, CERC has taken a lead in revising the Grid Code so that it can serve as a guiding principle for the SERCs.

1.4 The Indian Electricity Grid Code lays down the rules, guidelines and standards to be followed by the various agencies and participants in the system to plan, develop, maintain and operate the power system, in the most efficient, reliable, economic and secure manner, while facilitating healthy competition in the generation and supply of electricity.

## **2.0. Amendments of regulations on grant of licence for inter-state trading**

2.1 The Commission had issued the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of Trading Licence and other related matters) Regulations, 2004 in February, 2004. In the light of the experience gained over a period



of time, it was thought appropriate to make certain amendments. Accordingly, the draft amendments to the principal regulations on grant of licence for inter-State trading were published to invite suggestions/comments/objections from the stakeholders. After considering the comments of the stakeholders, the Commission notified the amendments on 13.4.2004 in the official gazette. The salient features of the amendments are as under:

The definitions of “associate”, “economic offence”, “net worth” and “relative” have been included.

The principal regulation has been amended to solicit additional information about the insolvency of the applicant or promoters or directors or associates of the applicant, relating to cases resulting in conviction or fraud or economic offence and also the details of civil and criminal cases pending since through insertion of an additional provision (Regulation 6A), these could under certain circumstances, depending on the facts, be considered as disqualifications for grant of licence. The disqualifications are meant to protect the general public from the activities in electricity sector of any undesirable person. The regulation would enable the Commission to take note of the past conduct of the persons associated with the applicant and keep them away from trading activities. In this manner, the public would be protected against repetition of past conduct by any undesirable person.

In case a licensee intends to increase the volume of electricity to be traded in a year, he should increase his net worth in keeping with his proposal and obtain prior approval of the Commission.

In case a licensee moves from one category to another category based on the volume of electricity traded, the technical and capital adequacy requirement should apply accordingly.

The forms have been revised to make them more specific and targeted.

### **3.0 Trading Margin Regulation-2006**

3.1 In a move aimed at protecting the consumers as well as providing reasonable return to traders, the Central Electricity Regulatory Commission (CERC), in exercise of the powers under section 79(1)(j) of the Electricity Act, 2003 has fixed the trading margin to 4 Paise/kWh for electricity traders who have been given licences for engaging in inter-State trading in electricity. Accordingly, the Commission has issued CERC (Fixation of Trading Margin) Regulations on 23.01.2006 (and published in the Official Gazette dated 27.01.2006). In this margin, transmission charges, application fees, Unscheduled Interchange (UI) charges and transmission losses are excluded.

3.2 The Commission found that nearly 90% of trading during 2004-05 was done at a trading margin of 5 Paise/kWh or less, but the same had increased to a weighted average of 10 Paise/kWh in the first half of the 2005-06. Up to the year 2004-05, trading margin of 5 Paise/kWh or less was a pre-dominant

trend. However, trading margins shot up in the first half of the 2005-06 and 68% of volume traded by the electricity traders carried a margin of 6 Paise/kWh or more in spite of the fact that the Commission had simplified the Open Access regulations in 2005. The instance of highest trading margin in a single transaction in 2004-05 was 43 Paise/kWh and in the first half of the 2005-06, it was 128 Paise/kWh.

3.3 The Commission fixed trading margin in view of the rising trend in trading margins being charged by the electricity traders. The Commission had originally proposed a trading margin of 2 Paise/kWh and invited comments from various stakeholders in September, 2005. A total of 24 stakeholders including ten traders and six distribution utilities had sent their comments and suggestions. The electricity traders were generally not in favour of fixing of trading margin but on the contrary the buyer distribution utilities and consumers had welcomed the proposal of fixing trading margin. After taking into account the comments and suggestions of various stakeholders, the Commission came to the conclusion that there was a need to fix trading margin and it would be reasonable to limit it to 4 Paise/kWh.

## BENEFITS TO CONSUMERS

Reduction in bulk electricity tariff of central generating stations under the new Terms & Conditions for the period 2004-09 on account of the following:

### (i) Reduction in Return on Equity (ROE)

Reduction in ROE from 16% to 14% for the tariff period 2004-09

directly reduces the cost of bulk power.

### (ii) Adoption of Debt Equity Ratio of 70:30 for the New Investment

The capital investment of the existing projects of the central generating companies were being serviced on debt equity ratio of 50:50. The new Terms & Conditions provide that for new investment on or after 01.04.2004 shall be serviced in the ratio of 70:30 and in case the equity deployed is less than 30% then actual equity is to be considered for the purpose of tariff. Since the equity fetches a higher return than the loan, the reduction in the equity components will reduce the cost of production of the central generating stations.

### (iii) Rationalisation of Depreciation

Central Commission has rationalised recovery of depreciation in tariff by linking it to useful life of the assets in its tariff notification for 2001-04 and 2004-09. The accelerated rate of depreciation of 7.5% allowed to thermal generating station has been dispensed with. This was with a view to reduce front loading of tariff and reduce price of electricity to the SEBs/DISCOMs.

### (iv) Higher Benchmarks of Performance

The norms of stations heat rate, secondary fuel oil consumption and auxiliary energy

<b>Gross Station Heat Rate</b>		
<b>Technology</b>	<b>For period 2001-04</b>	<b>For period 2004-09</b>
Coal based TPS 500 MW sets	2500 Kcal/kWh	2450 Kcal/kWh
TPS-II based stations	2956 Kcal/kWh	2850 Kcal/kWh
Combined cycle stations	2000 Kcal/kWh and separate norms for small gas turbines less than 50 MW	1850/1950 Kcal/kWh depending upon class of the gas turbine.
<b>Secondary Fuel Oil Consumption</b>		
Coal/Lignite based stations	3.5 ml/kWh	2.0 ml/kWh for coal and 3.0 ml/kWh for lignite based stations.
<b>Auxiliary Energy Consumption</b>		
Coal	As per GOI notification dt. 30.03.1992	Reduced by 0.5% point for coal based stations.

consumption for coal/lignite/gas based station have been revised with a view to achieving economy and improving efficiency of performance. The revision in these operational norms is as follows:

The relaxed operation norms for existing stations of NTPC namely Kahalgaon STPS and gas based stations namely Kawas, Gandhar, Dadri, Anta and Auriya have also been reduced and are as follows:

<b>Name of Generating Station</b>	<b>For the period 2001-04</b>	<b>For the period 2004-09</b>
Kahalgaon STPS	2550	2500
Kawas GPS	2125	2075
Gandhar GPS	2100	2000
Anta GPS	2125	2075
Auriya GPS	2125	2100
Dadri GPS	2125	2075

The variable charges are reduced corresponding to the revision in operating norms. In case of existing stations of NTPC, the net reduction in the variable charges for the NTPC stations based on prices of coal, gas and secondary fuel oil as in March, 2004 was of the order of Rs.372.00 crore out of this Rs.233 crore was on

account of reduction in specific fuel oil consumption norms alone. However, upward revision in fuel price has offset the reduction achieved through tightening of operating norms.

(v) Norms for loss of coal in transit

In the tariff regulations for the period 2004-09, the following normative transit and handling losses as percentage of the quantity of coal dispatched by

the coal supply company during the month have been specified:

Pit head generating stations : 0.3%  
Non-Pit head generating stations : 0.8%

The above norms would have significant impact in curbing loss/ pilferage of coal in transit.

(vi) Norms for O&M expenses

In the tariff regulations for the period 2004-09, the Commission has adopted normative approach towards O&M expenses to be allowed for thermal generating stations. This will encourage the generating companies to economize their O&M expenses and keep the cost of generation under control. The O&M norms for coal based stations are as follows:

<b><u>Coal Based Stations</u></b> <b>(Rs. in lakh/MW)</b>		
<b>Year</b>	<b>200/210/250 MW sets</b>	<b>500 MW and above sets</b>
2004-05	10.40	9.36
2005-06	10.82	9.73
2006-07	11.25	10.12
2007-08	11.70	10.52
2008-09	12.17	10.95
Similar norms have been set for lignite fired thermal stations as well as gas turbines / combined cycle generating stations.		

(vii) Target Availability

Norm of target availability for thermal generating stations was adopted as 80% and for lignite based stations TPS-II the norm

was 72% for the period 2001-04. The target availability norm for thermal generating station has been retained as 80% for the period 2004-09. The norm for lignite based stations has been raised to 75%. In case of hydro stations, capacity index norms for the run of the river type hydro stations have been raised to 90% from 85%. The raising of availability norms has positive impact on reliability of power supply.

Impact of CERC Norms on NTPC Coal-Based Stations

- ROE – Reduction of Rs.253 crore per year
  - Result of ROE reduction from 16% to 14%
- Energy Charges – Reduction of Rs.333 crore per year
  - As a result of higher efficiency, lower specific fuel oil consumption and lower Aux. Consumption
  - Computed at March, 2006 coal and fuel oil prices
- Increase in Energy Charges due to increase in coal and fuel oil price between March, 2004 and March, 2006 – Rs.1616 crore

**As can be noticed, all efficiency gains in power plant operation have been neutralized due to non-transparent pricing of fuel.**



## **STATUS REGARDING IMPLEMENTATION OF NATIONAL ELECTRICITY POLICY (NEP)**

### **(1) ASSAM**

1. Assam Electricity Grid Code is already in place.
2. Distribution Open Access Regulations notified on 27<sup>th</sup> February, 2006.
3. The weighted average avoided cost method was generally indicated by the Regulators as the preferred method for computation of surcharge for distribution open access. The principle will be adopted in practice in line with the National Tariff Policy, 2006.
4. Gradual reduction of cross-subsidy has been attempted in the Tariff Order for 2005-06 and 2006-07.
5. The Commission abolished un-metered category from Schedule of Tariff in 2005-06 Tariff Order, and directed licensees to convert all un-metered consumers to metered ones. The task is yet to be completed. The Commission is monitoring the performance.
6. Time of Day (TOD) has been extended to more consumer categories in HT groups in 2005-06 Tariff Order.
7. Transmission charges have been notified in the Tariff Order for 2006-07.
8. Intra-State Trading Regulations finalized and notified in April, 2005.
9. Terms and conditions for determination of Tariff Regulation, 2006 have been notified on 24<sup>th</sup> May, 2006.
10. The Utilities have taken up the work for establishment of SCADA system with SLDC for providing data transfer and communication.
11. A rebate of Rs.40/- per connection per month has been allowed in Tariff Order for 2006-07 to consumers having solar water heater. In 2005-06 Tariff Order rate was Rs.30/-.
12. The Consumer Redressal Fora have been put in place by the 3 Discoms. Actions being taken to designate a senior officer of Government of Assam as Ombudsman.

### **(2) CHHATTISGARH**

1. The draft Grid Code has been published and public hearing also been held.
2. The open access regulations for use of the transmission and distribution system of the Electricity Board have been notified in July, 2005. The open access charges have also been notified. Open access has been introduced in phases beginning April, 2006 and open access for 1 MW will be available from April, 2008. Five consumers are availing open access presently, three for captive consumption and two for availing power from private generators.
3. The weighted average cost method has been adopted for computing the cross subsidy surcharge.
4. The Commission has so far passed only one tariff order and the second tariff order for 2006-07 is being issued shortly. In both these orders, there is reduction in cross-subsidy.
5. The Commission has approved an action plan for cent percent meterisation of consumers by the end of March, 2007. The progress of meterisation is being monitored quarterly by the Commission. However, looking at the slow progress till June, 2006, the Commission in its review meeting has directed the Board to revise the plan and submit the progress monthly as to ensure that it is completed by March, 2007.
6. The Time of Day (TOD) tariff for limited category of consumers was introduced in the first tariff order for 2005-06 passed by the Commission in June, 2005. Extension of TOD tariff to all industrial consumers is being considered in the tariff order for 2006-07.
7. The Transmission charges for open access has been finalized and notified in February, 2006. It is being reviewed in tariff orders.
8. The Regulations on Terms and conditions of Tariff have been notified in February, 2006.
9. The technological upgradation of SLDC as also SCADA is in progress.
10. To promote generation from renewable sources of energy, the Commission has passed order in November, 2005 under which the State Electricity Board is mandated to procure 5% of its power consumption during a year from bio-mass based generators located in the State. The generation tariff for purchase of power by the licensee from bio-mass generators has also been decided covering a period of 10 years.
11. The Consumer Redressal Forum has been established at Raipur, Bilaspur and Jagdalpur and Electricity Ombudsman has been appointed. The Forums are functional since last one year. The Electricity Ombudsman is also functional.

### (3) DELHI

1. Electricity Grid Code – The Delhi State Electricity Grid Code shall be finalized shortly.
2. The DERC (Terms & Conditions for Open Access) Regulations, 2005 have been notified on 03.01.2006. These Regulations allow for immediate Open Access to Intra-State Transmission System subject to satisfaction of conditions contained in the Regulations. However, Open Access to the Distribution System shall be allowed in a phased manner as under:

For consumers with connected load of 5MW and above	-	1 <sup>st</sup> July, 2007
For consumers with connected load of 3MW and above	-	1 <sup>st</sup> Jan, 2008
For consumers with connected load of 1MW and above	-	1 <sup>st</sup> July, 2008

3. As per the DERC (Terms & Conditions for Open Access) Regulations, 2005 notified on 03.01.2006, the applicable charges for Open Access customers which inter alia includes surcharge also, shall be determined by the Commission from time to time. Since the Open Access to Distribution system in Delhi shall commence from 1<sup>st</sup> July, 2007, this aspect would be considered appropriately while determining the applicable Surcharge.

4. The aspect of cross-subsidy is being duly considered by the Commission at the time of finalization of tariff for different categories of consumers. The consultation with all Stakeholders is being done through the process of public hearing and seeking comments on Tariff Petition of Utilities for consideration of the Commission during finalisation of the Tariff Orders.
5. The percentage of consumers with metered supply is being closely monitored by the DERC. As on 31.03.2006, the number of consumers with metered supply as proportion of total number of consumers was in the range of 95-98% in the areas of three DISCOMs. The Commission is also looking into the aspect of metering in line with the CEA Regulations for Installation and Operation of Meters as notified on 17.03.2006.
6. Time of Day (ToD) - This would require TOD Metering to be in place which calls for a huge capital investment. This may not be feasible in the immediate future since the electro-mechanical meters have been recently replaced in the past 2-3 years and the new meters so installed will require to be modified/activated for TOD Metering. However, consultations are on between the DERC, Govt. of NCT of

- Delhi, TERI and the DISCOMs on the feasibility of introducing time of the day tariff on a pilot basis.
7. Transmission charges for open access consumers - As per the DERC (Terms & Conditions for Open Access) Regulations, 2005, as notified on 03.01.2006, the Commission will determine the applicable charges including transmission charges, etc. for Open Access customers from time to time. The transmission charges can be specified as part of the Tariff approved for the State Transmission Utility (STU).
  8. The DERC (Intra-State Electricity Trader) Regulations, 2005 have been notified on 23.01.2006.
  9. The DERC (Terms and Conditions of Tariff) 2006 to be effective from FY 2007-08 onwards are under discussion and a MYT regime is being contemplated. However, in its Tariff Orders, the DERC is following the principles and methodologies of the Central Electricity Regulatory Commission (CERC).
  10. Technological up-gradation of SLDCs and SCADA for distribution licensees - With implementation of Unified Load Despatch and Communication (ULDC) scheme by POWERGRID in Northern Region, the SLDC of Delhi State was correspondingly upgraded by POWERGRID for which cost is being recovered by way of ULDC charges. The SCADA system in distribution area of all the three licensees, is under implementation with expected completion by end of FY 2006-07.
  11. To promote co-generation and generation from renewable sources - The scope is rather limited in Delhi. The Commission is processing the petition for a 6 MW Timarpur Waste Management Plant which will be the first non-conventional source of power in Delhi. The projected tariff structure would facilitate setting up of another 4 similar plants in various parts of Delhi.
  12. Protection of consumer interest - The DERC had on 11<sup>th</sup> March, 2004 notified its Regulations on Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers and Ombudsman. In pursuance to these Regulations, Consumer Grievance Redressal Forum and Ombudsman have started their functioning from August, 2004.

#### **(4) GUJARAT**

1. Electricity Grid Code has been notified vide gazette dated 25.08.2004.



2. Distribution Open Access Regulation has been notified vide gazette dated 29.09.2005.
3. Computation of Surcharge – Category wise cost of supply methodology adopted for the computations.
4. Gradual reduction of cross subsidy – Earlier in Feb, 2006 it was worked out to Rs. 1.80 per unit on the basis of category wise cost of supply for the year 2003-04. Now, on the basis of data for the year 2005-06, it is worked out to Rs.1.35 per unit.
5. 100% metering of Consumers- All the consumers are metered except Agricultural consumers (28% of agricultural consumers are also metered). The Commission has extended limit for metering in Agricultural up to December, 2007 under section-55(1) of the Electricity Act, 2003.
6. Time of Day (ToD) tariff exists for consumers having contracted demand 500 kVA and above.
7. Transmission Charges for Open Access consumers are decided in Feb., 2006 and subsequently revised through ARR exercise and Tariff Order dated 6<sup>th</sup> May, 2006.
8. Intra-State Trading Regulations- Regulations for Licensing of Trading notified through gazette dated 30.03.2005 also covers Intra-State Trading.
9. Terms and Conditions of Tariff Regulation is notified vide gazette dated 31.03.2005.
10. Technological upgradation and SCADA work being carried out through consultancy of Power Grid.
11. Minimum percentage of power purchased through renewable source is determined vide Regulations dated 29.10.2005. Recently pricing for procurement of power through wind energy sources decided by the Commission through order dated 11.08.2006 (Rs.3.37 per Unit).
12. Total eight Consumer Grievance Redressal Forums are working in the Gujarat State. The Commission has designated the Secretary- GERC as 'Electricity Ombudsman' with effect from 5<sup>th</sup> August, 2005.

## **(5) HARYANA**

1. The Electricity Grid Code is already in place, to be fine-tuned in accordance with IEGC finalized by CERC in December, 2005.
2. Terms and Conditions for Open Access Regulations (Regulation No.HERC/11/2005) notified on 19<sup>th</sup> May, 2005.
3. Computation of Surcharge – The cost of supply to the category of consumers for the purpose of tariff to which the open access consumer belongs, the voltage at

- which he is connected and the realization from that category of consumer shall be the basis of calculating the extent of cross-subsidy and hence the surcharge.
4. Gradual Reduction of Cross-Subsidy – Since the first tariff order of the Commission in FY 2001, the consumer category wise cross-subsidy except domestic consumer, have declined. However, the Commission, in consultation with the stakeholders including the Utilities and Government would be preparing a trajectory to reduce and finally eliminate cross-subsidy in line with the National Tariff Policy.
  5. The Commission has directed the Distribution companies (UHBVNL & DHBVNL) to achieve 100% metering at the earliest. They are required to finalize and submit a comprehensive metering plan for achieving 100% metering in the State, including its implementation schedule and encompassing both the aspects namely provision of meters at the consumer's premises and the energy audit. A quarterly report is required to be submitted to the Commission by 20<sup>th</sup> of April / July / October / January respectively.
  6. Time of Day Tariff – A concept paper is under preparation for introducing TOD in respect of HT Industrial and other such categories of consumers where tri-vector meter already exists.
  7. Transmission and SLDC charges determined (revised) vide Commission's Order dated 26<sup>th</sup> July, 2006 in respect of Annual Revenue Report for Transmission Business & SLDC for FY 2006-07 and Transmission Tariff & SLDC charges.
  8. Eligibility Criteria for Grant of Trading Licence, the duties and the terms and the conditions of Trading Regulation has been notified by the Commission on 27<sup>th</sup> December, 2005.
  9. Terms and Conditions of Tariff are under draft discussion stage.
  10. Technological upgradation of SLDC and SCADA – HVPNL (STU & SLDC) has reported that the broad design for SCADA / EMS expansion plan has been received from Power Grid Corporation, and is under examination.
  11. Promote Co-generation and Generation from renewable sources – The document soon to be finalized is under consultation stage. The deficit scenario in Haryana, which is likely to continue in short to medium term makes the provision for minimum off-take from Co-gen/Renewable sources redundant. Given the limited scope of energy from such sources whatever, is generated will be absorbed by the Discoms. In the longer term perspective, if the need arises, such sources along with other 'must run' stations may not be kept under

- ‘merit order’. Tariff would depend on the kind of ‘fuel’ used.
12. Consumer Redressal Forum and Ombudsman – Two Discoms in Haryana viz. UHBVNL and DHBVNL have set up consumer redressal forum. They are already functional. The Commission has designated (as per Electricity Act, 2003) an Ombudsman.

## **(6) HIMACHAL PRADESH**

1. The Electricity Grid Code is being fine tuned and would be finalized by September, 2006.
2. HPERC (Terms and Conditions for Open Access) Regulation, 2005, notified on 3<sup>rd</sup> June 2005. The regulation specifies that Open Access above 1MVA and not exceeding 2MVA shall be allowed from 1<sup>st</sup> April, 2007.
3. Tariff Policy formula for calculation of surcharge has been adopted for computation of surcharge for distribution Open Access in the regulations framed by the HPERC.
4. The Commission in its four tariff orders issued over the last five years has rationalized the tariffs of the various categories and have taken steps to reduce the cross subsidy by increasing the tariffs of the subsidized categories and reducing the tariffs of the subsidizing categories. HPERC (Cross Subsidy Surcharge, Additional Surcharge, phasing of Cross Subsidy) Regulation 2005, provided for linear decrease of cross subsidy. The base year for starting the elimination of cross subsidy surcharge shall be the financial year 2006 and the phasing will be in terms of percentage of the cross subsidy surcharge to be made applicable to the Open Access Customer – starting from 100% in the first year to 20% in the sixth year i.e. 2011.
5. All consumers in Himachal Pradesh are metered. The Commission had directed the Board to install electronic meters in a phased manner and all new connections are with electronic meters. The Commission had also introduced two part tariff for large industry in 2001 and had extended this tariff in 2004 to other categories except domestic where the connected load was above 20 KW. The Board had been directed to install electronic tri-vector meters for all such consumers and as per the information submitted by the Board almost all consumers have been provided with this type of meters.
6. TOD tariff was introduced by the Commission for large industry in the year 2001. This tariff was extended to all consumer categories with connected load above 20 KW, except domestic category, in the tariff order for 2004-05. The TOD tariff

therefore is now applicable to all categories except domestic.

7. HPERC (Transmission, wheeling, SLDC and intervening facilities charges) Regulations 2006 are at the final stage.
8. The Commission has notified HPERC (General Condition for Trading Licence) Regulation 2004.
9. The Commission had finalized and notified the HPERC (Terms and Conditions for determination of Tariff) Regulations, 2004 on 09.06.2004.
10. Issues of further technical up-gradation of SLDC shall be taken up at the time of implementation of intra-State ABT.
11. HPERC (Power Procurement from Renewable Sources) Regulations 2005 are at printing stage. As per these regulations, energy from Renewable sources and cogeneration available after the captive use and third party sale shall be purchased by the distribution licensee(s): Provided that the quantum of purchase by a distribution licensee, under these regulations shall be minimum 5% of energy from renewable sources and cogeneration expressed as percentage of its total consumption during a year.
12. The Commission had appointed the Electricity Ombudsman during December, 2004. The HPSEB, which is the only

distribution licensee in the State, had constituted the Forum for Redressal of Grievances during June, 2005.

## **(7) JHARKHAND**

1. Electricity Grid Code is being prepared. It shall be notified soon.
2. Distribution Open Access Regulations notified.
3. Avoided cost method has been used for computation of surcharge in Regulations on Open Access.
4. All Stakeholders, including Government are invited to participate / offer their comments on Tariff Petition of Licensees. Reduction of cross subsidy takes place during tariff determination in which all stakeholders participate. Discussion with the State Government is carried out at each stage.
5. The Commission has directed JSEB to complete 100% metering. JSEB has not submitted its plan for completion of 100% metering. However, work is in progress.
6. TOD Tariff has already been introduced for large consumers.
7. JSERC is in the process of determining transmission charges for the open access consumers.



8. Regarding Intra-State Trading Regulations, the Public Hearing has been fixed on 9<sup>th</sup> September, 2006. Subsequently the Regulations shall be finalised and notified.
9. Terms and Conditions of Tariff Determination have been notified by JSERC.
10. Technological upgradation of SLDC's and SCADA for distribution licensees is in the planning stage. It shall take some time.
11. In absence of any information, the Commission had directed the Board to submit their plan of action and strategy for rural electrification through promotion of non-conventional form of electricity. The Commission also directed the Board to coordinate with JREDA (Jharkhand Renewable Energy Development Agency) in this regard for successful implementation of various initiatives. The Commission has received Tariff revision Petition for FY 2006-07 only now, in which percentage will be fixed.
12. Consumer Grievance Redressal Forum of all the four Distribution Licensees except DVC have been formed. Ombudsman too has been appointed.

## **(8) KARNATAKA**

1. The Electricity Grid Code has been issued by KERC vide

Notification No.D/07/5 dated 26<sup>th</sup> December, 2005 and it has been published in the State Gazette on 26<sup>th</sup> January, 2006.

2. Open Access Regulations have been issued by KERC on 12.11.2004, published in Karnataka Gazette on 16.12.2004. Further these Regulations have been amended to comply with the Tariff Policy, on 31.05.2006 and published in Karnataka Gazette on 22.06.2006. Under these Regulations, the Commission has introduced the open access in the following phases:

Phase-1: All HT Installations with CD of 15MW & above and with voltage level of 66 KV & above- from 10.06.2005

Phase-2: All HT Installations with CD of 5MW & above and with voltage level 33 KV & above- from 01.04.2006

Phase-3: All HT Installations with CD of 3MW & above and with voltage level 11 KV & above- from 01.04.2007

Phase-4: All HT Installations with CD of 1MW & above - from 01.04.2008

3. The surcharge has been determined as per the methodology specified in the National Tariff Policy. The rates of surcharge are:

For 66 KV & above consumers  
- 113 paise per unit.  
For 33 KV level consumers  
- 80 paise per unit.

4. KERC has taken initiative in reduction of cross subsidy in its Tariff Orders. Presently BJ/KJ and Irrigation pump sets are the only categories paying below the average cost of supply. Meanwhile KERC has addressed the Government of Karnataka to indicate long-term subsidy policy of the Government so as to draw a roadmap for reduction of cross subsidy. Response from State Government is awaited.

5. The Commission has directed all the Discoms to install meters to all the installations as the NEP and has not extended the time limit indicated in the EA 2003. In the Tariff Order issued during September 2005, the Commission has removed the flat rate tariff for un-metered categories and has prescribed lower fixed charge for encouraging metering of IP set installations. As on 31.03.2006 the status of metering of un-metered categories is as follows:

Irrigation Pump Sets-27%  
Bhagya Jyothi/Kutir Jyothi-64.63%  
Street lights Installation-82.58%

6. KERC has introduced TOD tariff for HT & LT Industries and HT water supply at the option of the consumers in its Tariff Order of September, 2005.
7. KERC has been determining the Transmission charges since 2005 for open access. As per the Tariff Order dated 7<sup>th</sup> April 2006, the transmission tariff for open

access customers is also as follows:

For long-term customers @  
Rs.10.50 lakhs per MW per  
year.

For short-term customers the  
short-term rate is fixed @  
Rs.720 per MW per day.

In addition both the long-term  
and short-term customers have  
to bear the loss depending upon  
the voltage level of injection  
and drawal.

8. KERC has issued Intra-State Trading Regulations on 9.11.2004 and notified in the official State gazette on 2.12.2004.
9. The Regulations on terms and conditions on transmission and distribution tariffs, under MYT framework have been issued on 31.05.2006 and notified in the official gazette on 22.06.2006.
10. Discoms have been directed to implement intra-State ABT and consequently STU has been directed to upgrade the SLDC and SCADA. Setting up of Area Load Despatch Centres have been initiated by all the five Discoms.
11. In the KERC (Power Procurement from Renewable Sources by Distribution Licensee) Regulations 2004, KERC has determined the quantum of purchase from NCE sources by each distribution

licensee as minimum of 5% and a maximum of 10% of total consumption during a year.

12. KERC (Consumer Grievance Redressal Forum and Ombudsman) Regulations 2004 have been notified on 10.06.2004. Grievance redressal Forums have been constituted in all the five Discoms. The Commission has also appointed of an Ombudsman.

## (9) MADHYA PRADESH

1. The Electricity Grid Code has been notified on 06.08.04.
2. Regulation for open access has been notified for transmission and distribution network and it also includes principles for

determination of wheeling charges and cross subsidy surcharge. As per time table, open access for customers of 1 MW and above shall be available by 1st October, 2007.

3. The Commission has prescribed computation of surcharge for distribution of open access through weighted average avoided cost method.
4. The Commission in its tariff orders for FY'06 and FY'07 have attempted to reduce the cross subsidy and the Commission is in the process of notifying the road map for reduction in cross subsidy. Present level of cross subsidy amongst various categories is as follows:

Category/Sub-Category	New Tariff Structure (FY06-07)		
	Avg. realisation (Rs./Unit)	Avg. CoS (Per unit)	Realisation attained
Domestic	3.01	3.49	86%
Non-Domestic	5.86	3.49	168%
Pub. Water Works	2.95	3.49	84%
Street Lights	3.53	3.49	101%
LT Industry	5.19	3.49	149%
Irrigation Pumps for agriculture	2.15	3.49	62%
Railway Traction	4.64	3.49	133%
Coal Mines	5.50	3.49	158%
Industrial and Non-Industrial	4.72	3.49	135%
Seasonal	5.25	3.49	151%
HT Irrigation and Water Works	3.19	3.49	91%
Bulk Residential users	3.60	3.49	103%
Bulk supply to Exemptees	3.33	3.49	95%

5. After the enactment of Electricity Act, 2003, the Commission had constituted a task force comprising of officers of the Distribution licensees and the Commission. This task force was cast upon the responsibility of review of the present status and to decide the road map so as to provide meters on cent percent un-metered connections within a stipulated period of two years as per the Act. Un-metered connections have been mainly under two consumer categories, i.e. domestic and agriculture. Circle-wise quarterly targets were decided and the Distribution companies were directed to ensure that meterisation as per the targets is achieved. The task force had been reviewing the progress on regular intervals. Initially the quantum of un-metered connections in the State was to the tune of 18 lakhs. The task force observed that the progress in the matter has not been as per the targets and there have been slippages on the part of the Distribution licensees owing to different reasons. The Distribution companies thereafter approached the Commission for extension in time and after reviewing the entire matter, the Commission permitted meterisation of cent percent domestic category of un-metered connections by March, 2006 and in case of agriculture category by September, 2007.

5.1 Presently, the quantum of un-metered consumers

under domestic category is about 4.42 lakhs and under agriculture it is 6.78 lakhs.

5.2 One of the Distribution companies namely MP Paschim Kshetra Vidyut Vitaran Co. Ltd., has almost completed 100% meterisation of un-metered domestic connections except about 7000. The MP Madhya Kshetra Vidyut Vitaran Co. Ltd., has about 90000 and the The MP Poorv Kshetra Vidyut Vitaran Co. Ltd., has still about 3.46 lakhs un-metered connections.

5.3 Progress of meterisation with regard to agriculture un-metered connections has not been up to the mark. The Distribution licensees have been expressing number of difficulties about the placement of meters, bypassing of meters by the cultivators, etc. Keeping this in view, the Commission in its recent retail tariff order has provided only [metered tariff](#). It has been directed to the Distribution companies that wherever they have not been able to install meters on individual un-metered connections, the meters shall have to be installed on distribution



transformers for billing purposes.

6. Time of Day (TOD) to High Tension consumers is already applicable. Further, the Commission has made TOD tariff applicable in the tariff order for FY06-07 for non-domestic category of consumers having load of 10 KW and above.
7. Transmission charges for FY'06-07 to FY'08-09 have been prescribed.
8. Intra-State Trading Regulations have already been notified.
9. Terms and conditions for Generation, Transmission and Distribution tariff have already been notified. These regulations are being further revised in accordance with the National Tariff Policy.
10. Technological up-gradation of SLDCs and SCADA for distribution licensees :

#### (A) SLDC

Work for technological up-gradation of SLDC has been completed to the extent that the SLDC is in a position to monitor the Generation from each power station, flow of power to each Discom on real time basis through the RTUs installed at various points and upgradation of SLD Center along with installation LDCs for Discoms under ULDC project. However

meters for intra-State ABT are yet to be installed. It is informed that these meters are likely to be installed by Dec., 2006.

#### (B) SCADA

The licensee had been asked to submit a time bound implementation programme on this aspect. The matter has been subsequently reviewed and the distribution companies have been directed to take appropriate measures like preparation of schemes of implementation of SCADA initially up to the level of 33/11 KV sub-station, identify the resources, and take further action for implementation.

11. In M.P., an order for procurement of power from wind energy generators has already been issued. The Commission has fixed a target of 0.5% of total annual consumption (including third party sales) in the area of supply for all licensees, subject to availability, as the minimum purchase requirement from wind power every year. The Commission has already fixed the price of power procurement from wind power generators and is in the process of notifying the power purchase price from bio-gas producers.
12. The Commission has issued guidelines for constitution of Forum for Consumer Grievances.

One Forum for each of three Discoms in the state has been established and are functional. The Commission has also issued regulations on Ombudsman and has appointed an Ombudsman in the Commission's office to deal with consumer grievances, who is functional.

## (10) MAHARASHTRA

1. The MERC (State Grid Code) Regulations, 2006 was notified on 15<sup>th</sup> February, 2006.
2. Revised Regulations (Distribution Open Access) notified on 21.06.2005 (originally notified on 10.6.2004).
3. Computation of surcharge for distribution open access - Initiation through above Regulations.
4. Reduction of cross-Subsidy - Being dealt with the tariff Orders and separately, for which an Approach Paper has already been floated, inviting comments from all stakeholders. Matter heard on 20<sup>th</sup> June, 2006 and Order is under formulation.
5. In Maharashtra 100% metering done by BEST, TPC, and REL. In case of MSEDCL and MPECS 100% metering has been completed except for agricultural consumers. Regarding agricultural consumers, it is being explored whether DTC

based metering along with allocation to the non-metered connections based on connected load (HP) can be implemented through the current ARR process. Metering programme also called for and monitored as a part of compliance to earlier Tariff Order directions.

6. Time of Day (ToD) tariff - Done for MSEDCL and for TPC, REL, and BEST propose to be introduced in current ARR.
7. Transmission Charges for Open Access - Regulations notified on 21.04.2005. The transmission-pricing framework within Maharashtra was passed by the Commission on 27<sup>th</sup> June, 2006.
8. Intra-State Trading Regulations - Regulations (Trading Licence Conditions) notified on 10<sup>th</sup> June, 2004.
9. Terms and Conditions of Tariff - Revised Regulation notified on 26.08.2005 (originally notified on 10.6.2004).
10. Approval of SLDC Budget for FY 2005-06 and FY 2006-07 Order released by the Commission on 16<sup>th</sup> May, 2006 and necessary steps being initiated. As far as SCADA is concerned, MSEDCL has introduced the same at certain Circle levels as part of APDRP programme. Other Licensees have SCADA in operation.
11. The Commission has passed an Order on 16<sup>th</sup> August, 2006 on

Long term Development of Renewable Energy Sources and associated Regulatory (RPS) Framework.

12. Guidelines for Consumer Grievance Redressal Forum - Regulations notified on 10.12.2003. Forums established are : MSEDCL : 12, REL : 1, TPC : 1, BEST : 1, MPECS : 1 (Total Number of Forums : 16).

## (11) RAJASTHAN

1. Grid Code has been approved by the Commission on 22.03.2003 and is being revised in line with IEGC, 2005.
2. RERC (Terms & Conditions for Open Access) Regulations, 2004 have been issued on 26.05.2004.
3. The Commission is in the process of determination of Open Access Surcharge for FY 2006-07 keeping in view the guidelines prescribed in Tariff Policy.
4. The Commission vide RERC (Terms & Conditions for Determination of Tariff) Regulation, 2004 has prescribed that it will determine the tariff in such a manner that it progressively reflects the cost of supply and the cross subsidy is reduced and eliminated in a period of ten years from April 01, 2005.
5. At present all consumer are under metered category except Agriculture consumer opted for flat rate billing. The

Commission vide notification dated 15.10.2005 granted time extension [u/s 55 (1)] for metering of unmetered agriculture consumer till 09.06.2008 and accordingly, issued necessary amendment in its regulations vide RERC (Electricity Supply Code & Connected Matters) (Third Amendment) Regulations, 2006.

6. The Commission has directed the Discoms to file a tariff petition incorporating TOD provision.
7. Transmission charges for open access consumers are the same as those for distribution licensees and are being determined regularly latest on dated 31.03.2006. Transmission charges for the year 2006-07 are Rs.83.96 per kW per month.
8. Intra-State Trading Regulations have already been finalized vide Regulation 29 dated 17.09.2004.
9. RERC (Terms and Conditions for determination of Tariff) Regulations, 2004 have been issued by RERC.
10. Technological up gradation of SLDC and SCADA has been completed for State Load Despatch Centre, Heerapura. The display of Discomwise data at Discom HQ is yet to be completed.
11. The Commission has issued order dated 31.03.2006 fixing minimum percentage of power purchase from renewable sources

of energy. Draft Regulations for pricing of power from such sources have been issued for public objections, hearing has been held on 31.08.2006 and these will be finalized soon.

12. The Consumer Grievances Redressal Forum has been set up by the Distribution Licensees. The ombudsman for each Distribution Licensee (Total 3 Nos.) has been appointed by RERC vide order(s) dated 12.05.2004.

## **(12) TRIPURA**

1. State Electricity Grid Code is under preparation. In the mean while Electricity Grid Code published by CERC for intra-State Grid management is applicable as Tripura is connected to National Grid.
2. There is no captive generation or any public generation available. No response from the State Government received in respect of charges for wheeling power from any generator outside the State. Open Access regulation is in draft stage for consultation.
3. Attempt for reduction of Cross Subsidy being kept in mind while tariff determination is made. First Tariff Order was made in July, 2005. The 2<sup>nd</sup> Tariff Petition is received in 1<sup>st</sup> week of August for the year 2006-07 and is under process.
4. The metering of all consumers has been taken up by the licensee

as per regulation including Kuthir Jyoti. The programme for replacement of old electro-mechanical meter by electronic meter has been taken up and out of 3.5 lacs consumer replacement of 50,000 is in progress to be completed by December, 2006.

5. Time of Day (TOD) introduced with concessional rate during off peak. No consumer yet has taken connection under this scheme using TOD meter.
6. Intra-State Trading Regulations - Draft under preparation.
7. Technological upgradation of SLDCs and SCADA for distribution licensees - The licensee has taken up this scheme for capital city under APDRP.
8. Draft regulation to promote co-generation and generation from renewable sources under preparation.
9. Consumer Redressal Forum created by the licensee and Secretary of State Commission appointed as Ombudsman.

## **(13) UTTARANCHAL**

1. Draft Electricity Grid Code has already been notified by the UERC and comments on the same have been received. It will be finalized soon.
2. Distribution Open Access Regulations has already been

- finalized and notified by the Commission on June 08, 2004.
3. The Weighted Average Avoided Cost method has already been laid down in the Tariff Policy.
  4. Cross-subsidy is being ensured. However, this is not a major issue in the State.
  5. 100% metering of consumers is being done and monitored.
  6. Time of Day (TOD) – for all HT consumers, i.e., above 100 BHP, LT non-domestic consumers with connected load above 25 KW and LT Industrial consumers with connected load above 25 BHP, ToD tariffs have been made mandatory.
  7. Transmission Charges for Open Access Consumers – already provided in the Transmission Tariff Regulations which states that beneficiaries would share the annual transmission charges on the basis of allocated capacity.
  8. Terms and conditions of Tariff have already been finalized for distribution, transmission and generation tariff.
  9. Transmission licensee has been directed to carry out the technological upgradation of SLDCs and SCADA.
  10. Regarding promotion of co-generation and generation from renewable sources etc., the Commission has already issued an order laying down the

approach for their tariff determination for pricing of power procurement from SHP's.

11. The Commission has already notified separate Regulations for establishment of Forum for Redressal of Grievances of the Consumers and also for appointment and functioning of the Ombudsman. Accordingly, two grievance redressal forums and Ombudsman is functioning in the State.

## (14) WEST BENGAL

1. The West Bengal Electricity Regulatory Commission (West Bengal Electricity Grid Code) Regulations, 2006 has been issued.
2. The West Bengal Electricity Regulatory Commission (Phasing for Open Access in Distribution/Sale of Electricity) Regulation, 2006 has been issued.
3. Method for Open Access Surcharge - The West Bengal Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2005 have been issued and The West Bengal Electricity Regulatory Commission (Terms and Conditions for Open Access – Schedule of Charges, Fees and Formats for Open Access) Regulations, 2005 have been issued.



4. Reduction of Cross Subsidy – The Commission has not taken a view on the time limit as yet, but each yearly tariff order has kept on reducing the extent of cross subsidy.
5. 100% metering of consumers – Directions to distribution licensees have been given through individual tariff order for the year 2006-07. West Bengal Electricity Regulatory Commission has also issued a Notification in exercise of the power conferred by the second proviso to sub-section (1) of section 55 of the Electricity Act, 2003 (36 of 2003) that no licensee shall supply electricity after 31st March, 2008 to any class or classes of persons in West Bengal, except through installation of correct meter in accordance with the regulations made in this behalf by Central Electricity Authority.
6. Time of Day (TOD) Tariff: (1) Generation tariff and tariff for licensee to licensee sale have been fixed on the time of the day (TOD) basis. (2) (i) TOD tariff has been made optional in irrigation system; (ii) For LT commercial, industry and public waterworks and consumers with minimum 35 KVA sanctioned load or above have been offered optional TOD; (iii) For HT commercial, industry, public utility TOD has been made optional. Power Factor Rebate and surcharge of HT consumers has been provided on the basis of TOD principle.
7. The West Bengal Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulations, 2005 have been issued.
8. Intra-State Trading Regulations – A set of regulations called the West Bengal Electricity Regulatory Commission (Licensing and Conditions of Licence) Regulations, 2004 are already in existence since 15th June, 2004. However, appropriate amendments are under consideration.
9. The West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 with previous publication in replacement of the set of the Regulations were in force since 15th June, 2004.
10. West Bengal Electricity Board is yet to be unbundled and SLDC continues to operate within the fold of the same. The ULDC scheme has been implemented at SLDC and is now under operation.
11. Each tariff order for each distribution licensee incorporates detailed instructions about how power is to be procured and at what price through merit purchase orders. The West Bengal Electricity Regulatory Commission (Cogeneration & Generation of Electricity from Renewable Sources of Energy) Regulations, 2006 issued under Notification No.28/WBERC

dated 04.05.2006 provides for minimum percentage of power purchase by distribution licensees from such sources. For procurement from renewable sources, price capping has also been introduced in the said regulations apart from making other facilitating provisions.

12. The West Bengal Electricity Regulatory Commission (Guidelines for Establishment of Forum for Redressal of Grievances of Consumers and Time and Manner of Dealing with such Grievances by the Ombudsman) Regulations, 2006 with previous publication in replacement of a set of regulations already in existence since 8<sup>th</sup> October, 2003.
13. The Regulations, as mentioned in item 12 above provide for as many Grievance Redressal Officers as may be necessary at the rate of at least one such GRO at each sub-district/district/region/zone/head quarter level in each organization of each licensee. But an aggrieved consumer will be entitled to approach the Ombudsman if he is aggrieved by any order of any GRO at any of these levels.
14. Guidelines for appointment of Ombudsman already in existence since June, 2004.

## Major Achievements of SERCs

### (1) GUJARAT

Approval for 'Power Purchase Agreements' given to two private Discoms- Torrent Power AEC Ltd. and Torrent Power SEC Ltd. for their load requirements from the **1128 MW** power plant being developed by the Torrent Power Generation Ltd. near Surat.

For scrutiny of draft 'PPA documents' and technical parameters, the Commission had engaged 'Central Electricity Authority' as consultant.

The Commission is also in receipt of the petition for approval of PPAs between GUVNL & GSEC and GUVNL & Nuclear Power Corporation.

The Commission has received the petitions for 'ARR and Determination of Tariff' from unbundled entities of erstwhile GEB. ASCI, Hyderabad was consultant for this work and Tariff Orders were issued in first week of the May, 2006. Brief details are as under-

- For Generating Company, depreciation allowed in accordance with CERC Regulations. **RoE allowed 12%**
- For Transmission Company, depreciation allowed in

accordance with CERC Regulations. **RoE allowed 10%**

- For Distribution Companies, depreciation allowed in line with the CERC Regulations. **RoE allowed 7%**
- KW based (contracted load) Fixed Charges for Residential and Commercial consumer introduced
- Separate Tariff for Rural and Urban Residential consumers
- No change in basic tariff structure since 2000
- Energy charges also almost same in all tariff categories since 2000
- T & D losses have been reduced from **30% in 2004-05 to 25% in 2006-07.**
- There will be a combine gap of Rs.180 crore for unbundled distribution licensees.

Separate **Assessment procedure for theft cases** under section-135 is provided in the 'Supply Code' through first amendment to 'Supply Code'.

Two-part Grid Tariff for the electricity supply to 'Torrent Power SEC Ltd.' by GUVNL has been determined by the Commission with the help of

consultancy services from 'ICRA Limited'.

Total eight 'Consumer Grievance Redressal Forums' are working in the State and 'Ombudsman' office has also started functioning.

One meeting arranged with the Forum members, Ombudsman and Commission to discuss various issues related to consumer complaint handling procedures.

Through Tariff Orders in first week of May, 2006, Transmission Charges, Distribution wheeling charges and Cross-subsidy surcharges were determined.

Draft order published for 'Intra-State ABT'. Comments / suggestions are received and final order likely to be issued.

Discussion paper for 'purchase price of electricity generated through wind projects' published and comments invited.

The Commission has allowed assistance of Rs. 2 Lacs to 'Consumer Education and Research Society' for capacity building as well as consumer education efforts.

The Commission has also extended the time limit for metering all Agricultural Services up to December, 2007 under section-55(1) of the Electricity Act, 2003.

The State Government has finalized the 'Financial Restructuring Plan'.

Now, three-Phase continuous supply available to ALL through 'Jyotigram' (separation of feeder for agricultural supply)

## (2) KARNATAKA

Six Tariff Orders issued so far

- Tariff Rationalised based on average cost of supply
- All Consumers except Bhagya Jyothi and irrigation pumpsets are paying tariff equal to or more than the average cost of supply.
- IP sets tariff fixed at about 50 paise/unit as per CMP.
- Cross subsidy reduced
  - for HT industries from 62% in 2000 to 32% in 2005
  - for LT industries from 48% in 2000 to 34% in 2005
- ToD tariff for industries introduced in 2005
- Life line concept of 30 units for domestic category introduced in 2000
- Directives issued to improve quality of supply

Separate tariff introduced in 2005 for Urban & Rural consumers

Open Access introduced in 2005

- Transmission, wheeling charge & cross subsidy surcharge determined.

substantial savings in power purchase costs.

#### Renewable sources of energy

- Min & Max Percentage of purchase fixed
- Tariff for Renewable sources determined
- Wheeling charges at 5% for NCE sources.

Standards of performance specified for ESCOMs along with penalties for non-compliance.

All Regulations, Codes and Standards put in place.

#### T& D loss

- Allowed normative loss for pass through in tariff
- Utilities have reduced T&D loss from 38% in 2000 to around 29% in 2005

#### Consumer grievance handling

- Grievance redressal fora established in ESCOMs as per KERC regulations
- Ombudsman appointed

#### Consumer Advocacy:

- First Commission to appoint independent Consumer Advocate to represent Consumers interest.
- A network of consumer organizations established.

#### Power Purchase Agreements

- PPAs approved and Generation Tariffs determined resulting in

### (3) MADHYA PRADESH

MPERC was established in 1998 under ERC Act 1998. The tariff determination has been done in Sept 01, Nov 02, Dec 04 and June 05 in respect of composite tariff. Orders under MYT frame work issued in March 06.

MYT frame work implemented and generation tariff determined station wise.

Distribution Loss reduction trajectory prescribed for the three Discoms separately. Average Distribution losses are expected to reduce from 44% (FY01) to 26% (FY09). Intra-State Transmission losses pegged at 5.1% in FY07 and to go down to 4.9% in FY09.

Two part tariff determined for each generating station of MPGENCO for FY06, FY07, FY08 and FY09. This will facilitate implementation of intra-State ABT in MP.



Determination of transmission charges on per MW basis as required for open access for FY06, FY07, FY08 and FY09.

Open Access Regulations and principles for determination of open access charges prescribed. The phasing is as given below:

The domestic tariff in FY07 for first 30 units is Rs.2.65/unit which is 76% of CoS. The State Government provided a subsidy of 50 paise/unit in FY06.

Grid Code, Distribution Code, Metering Code, Performance Standards for transmission and

Connected Load	Date
10 MW & above at 132 KV	16th June'05
5 MW & above at 33KV & above and situated in industrial growth centre	16th June'05
2 MW & above at 33 KV and situated in industrial growth centre	1 <sup>st</sup> Oct'05
5 MW & above situated anywhere	1 <sup>st</sup> April'06
1 MW & above and situated in industrial growth centre	1 <sup>st</sup> Oct' 06
2 MW & above	1 <sup>st</sup> April'07
1 MW & above	1 <sup>st</sup> Oct' 07

Tariff for wind generators determined at Rs.3.97, Rs.3.80, Rs.3.63, Rs.3.46 for first four years and Rs.3.30 thereafter for the remaining period of 16 years. The minimum quantity for procurement fixed at 0.5% of the total consumption in the operational area of distribution licensee based on the available capacity.

Progressive tariff rationalisation by raising LT tariff from 57% of CoS (FY02) to 80% of CoS (FY07). CoS has come down from Rs.3.82 in FY02 to Rs.3.49 in FY07.

The agricultural tariff in FY07 is Rs.2.00/unit for first 300 units and Rs.2.50 thereafter without subsidy. The State Government provided subsidy in FY06 to the extent of 55 Paise/Unit.

distribution licensees, Code for billing and disconnection, regulations for Consumer meter testing, Consumer Grievances Forum and Ombudsman and Reporter of regulatory compliance notified.

The websites of five Companies formed out of re-organisation of MPSEB and the SLDC are being regularly monitored by the Commission for display of information related to the performance standards. At the Commission's website ([www.mperc.org](http://www.mperc.org)) Concept papers, Regulations, Orders, Dates of Public hearing are regularly available. Data related to performance of the companies are being regularly hosted.

MPERC has undertaken following studies-

- Investigation of Coal stock accounting
- Investigation of employees/ pension expenses
- Quality of power supply
- Transmission performance standards
- Verification of depreciation claims of MPSEB
- Appointment of metering Consultants( 3)

#### (4) MAHARASHTRA

MERC regulates wide range of power utilities: public sector undertakings such as successor entities of MSEB, a municipal undertaking BEST, private sector utilities such as TPC, REL and rural electric co-operative Mula-Pravara. The Commission had to deal with the ticklish issue of 'parallel licensing' involving TPC and REL in the suburban of Mumbai. Recently MERC addressed the sensitive issue of cross-subsidy by electricity distribution business of BEST to its transport operations through

its first tariff order for the municipal utility.

MERC adopted unique participatory and consultative process to prepare various Regulations under Electricity Act 2003. Two-tier consultative process adopted by the Commission involved discussion of initial drafts with licensees, consumer representatives and consultants followed by public consultation process before finalisation of the Regulation.

MERC advised Government on wide range of issues such as restructuring of MSEB, viability of Mula-Pravara electric co-operative, franchisee model for urban and rural areas, etc.

In view of significant capacity shortage (~4500MW) in the State, MERC developed a protocol for load shedding to protect the interests of rural and agricultural consumers. MERC also developed the concept of load management charge and created a system of reward and penalty mechanism for promotion of energy conservation.

MERC framed the Regulations for Consumer Grievance Redressal Forums and Ombudsman and ensured that

such forums are created and made functional in the State.

MERC is the first Commission to issue comprehensive orders to harness the excess capacity available with captive power plants.

MERC has been pro-active through its tariff and other orders to promote energy conservation in the State. MERC is closely monitoring pilot DSM programmes being implemented by the utilities under directives of the Commission. MERC is also orchestrating an energy conservation media campaign in the city of Mumbai.

MERC has issued detailed tariff orders for various non-conventional energy sources such as baggasse based cogeneration, biomass, small hydro, wind, municipal solid waste etc. Significant capacity addition is taking place in NCE sector in the State under these orders.

MERC has through an order fixed 'Renewable Purchase Obligation' for utilities in the State.

MERC has under its Open Access Regulations permitted consumers having load up to 3 MW to have "open access" and by next April this limit will be brought down to 1 MW.

## (5) TRIPURA

### Regulations approved and sent for publication

Conduct of Business Regulation.  
Supply Code Regulation.  
Performance Standard Regulation.  
Tariff Procedure Regulation.  
Miscellaneous Regulation.  
Consultancy Regulation.

### State Governments provides:

Manpower infrastructure.  
Fund  
State Level Forum  
District Level Forum.  
A set of Rules as per Section-180

- ✓ Electricity Department corporatised as Tripura State Electricity Corporation Ltd (TSECL) w.e.f. 1.1.2005.
- ✓ APDRP work in progress.
- ✓ Feeder metering completed.
- ✓ Computerized billing cover in urban areas.
- ✓ Very few legal disputes.
- ✓ Grievance Redressal Forum in forms.
- ✓ Open Access Regulation in way.
- ✓ No captive generation in the State.

✓ State Govt., Licensee, consumer, Commission are in able to reform in better future.

First Tariff Order issued w.e.f. 01<sup>st</sup> July, 2005.

## (6) UTTARANCHAL

### 1. List of major Orders passed by the Commission during 2005-06 :-

S. No.	Date	Description
01.	25.04.2005	Order on Transmission & Distribution Tariff for FY 2005-06.
02.	11.08.2005	Order on non-compliance by UPCL of provisions of Section 55 of the Electricity Act, 03.
03.	01.09.2005	Order on non-compliance of directions pertaining to arrangements for collection of bills etc. given by UPCL on 09.07.2004.
04.	10.11.2005	Order on Approach to Initial Tariff for New Hydro Generating Stations with capacity above 1 MW and up to 25 MW.
05.	10.11.2005	Order on Approach to Initial Tariff for Generating Stations with capacity up to 1 MW.
06.	17.11.2005	Determination of Tariff of Rajwakti Small Hydro Electric Project for 2005-06.
07.	28.11.2005	Investigation of UPCL's accounts through M/s. Amit Ray & Co.
08.	15.12.2005	Determination of Tariff of Ramgad, Kanva Ashra, Bhikuriagad Plants for FY 2005-06.
09.	23.12.2005	Determination of Tariff of Hanumanganga Small Hydro Electric Project for 2005-06.

### 2. List of Regulations finalized :-

S. No.	Date of Notification	Regulations
01.	04.01.2003	UERC (Fee & Fines) Regulations, 2002.
02.	13.04.2004	UERC (Guidelines for Establishment of Forum for Redressal of Grievances of the Consumers) Regulations, 2004.
03.	17.04.2004	UERC (Appointment of Consultant) Regulations, 2004.
04.	22.05.2004	UERC (Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2004.
05.	22.05.2004	UERC (Appointment and Functioning of Ombudsman) Regulations, 2004.
06.	19.06.2004	UERC (Terms and Conditions for Open Access in Distribution) Regulations, 2004.
07.	26.06.2004	UERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2004.
08.	09.10.2004	UERC (Terms and Conditions for Determination of Transmission

		Tariff) Regulations, 2004.
09.	30.10.2004	UERC (State Advisory Committee) Regulations, 2004.
10.	30.10.2004	UERC (Conduct of Business) Regulations, 2004.

### 3. List of Concept Papers circulated :-

1. Approach for determination of tariff for micro hydel generating stations with capacity up to 1 MW in September, 2005.

#### (7) **WEST BENGAL**

WBERC directed the CESC Limited to discontinue generation in their oldest Thermal Power Plant at Mulajore as the plant became uneconomical for generation due to excess coal consumption using obsolete technology. The plant was closed down in financial year 2002-03.

WBERC directed the DPSC Limited to stop generation in their oldest Thermal Power Plant at Seebpore as the plant became uneconomical for generation due to excess coal consumption using obsolete technology. The plant was closed down in financial year 2002-03.

WBERC introduced TOD tariff in its Tariff Orders for licensees. This TOD tariff has been continued since then and is in vogue till date.

WBERC published most of the Regulations in accordance with the provisions of the Electricity Act, 2003.

Remaining Regulations are on the process and expected to be published soon.

The tariff has been reduced for HT and EHT consumers of the distributing licensees. This has been done aiming at rationalization of Tariff, which has in turn reduced the cross subsidy component.

WBERC has directed the distributing licensees to purchase power from the generators following ABT principles. Necessary installation of ABT meters are going on in a time bound manner.

The T&D loss for the main distributing licensees namely, WBSEB and CESC Ltd. Covering almost the entire State of West Bengal has substantially gone down. A comparative

T & D Loss in %		
Year	West Bengal State Electricity Board	CESC Limited
2000-2001	30.0	19.0
2001-2002	27.5	18.0
2002-2003	27.5	18.0
2003-2004	27.5	18.0
2004-2005	25.0	17.0
2005-2006	24.0	16.0
2006-2007	23.0	15.75

**Note :** The T&D loss shown in % is the figure approved by the Commission. Apart from above, the T&D loss of DPL as approved by the Commission for financial year 2006-07 is 6.50% and that for DPSC Limited is 5.74% only.



statement in tabular form given below will reveal the fact :

## ANNUAL STATEMENT OF ACCOUNTS

1. Forum of Regulators (FOR) has been constituted by Government of India vide Notification dated 16<sup>th</sup> February, 2005. As per the notification, a separate bank account for FOR has been opened and maintained by the PAO, Central Electricity Regulatory Commission (CERC) with a transfer of Rs.10,00,000/- from Forum of Indian Regulators (FOIR) followed by Annual Subscription of Rs.50,000/- from each State Electricity Regulatory Commission and CERC. In addition to the above an amount of Rs.3,70,10,642.73 has been received from Ministry of Power as Corpus Fund.

2. Total receipts during the year 2005-06 is Rs.4,02,68,848.73. The details are given as under:-

Transfer of lump sum by FOIR	Rs.10,00,000.00
Annual subscription from State Electricity Regulatory Commission and CERC	Rs.10,00,000.00
Receipt from PAO, Min of Power on account of Study on Developing RIMS (30% advance)	Rs.12,00,000.00
Corpus Fund (Deposited with BOI)	Rs.3,70,10,642.73
Interest earned on deposits	Rs. 27,369.00
<b>Total</b>	<b>Rs.4,02,38,011.73</b>

3. Out of the above total receipts of Rs.4,02,38,011.73 including interest earned during the period, an amount of Rs.7,74,750/- was spent to meet the expenditure of the FOR during the FY 2005-06 and a Term Deposit of Rs.3,77,87,892.73 was made with the Bank of India. The closing balance as per records is Rs.24,50,119/- whereas the balance as per bank pass book is Rs.30,60,741/-. Thus, there is a difference of Rs.6,10,622/- and the details of the same is given as under :-

Cheque issued but not presented in the bank (Rs.1075/- and Rs.6,59,547/-)	Rs. 6,60,622.00
<b>Less:</b> cheque/receipt deposited into bank but not credited till 31.03.2006	Rs. 50,000.00
<b>Total</b>	<b>Rs. 6,10,622.00</b>